About the catalog: This catalog is published for information purposes and is designed to assist prospective students in program planning. The information in this catalog reflects current programs, requirements, and costs as of Fall 2016. Every effort is made to ensure accuracy at the time of publication; however, the catalog is not an irrevocable contract between the student and the Seattle Colleges. The colleges reserve the option to amend, modify or revise any content or provisions of this catalog without notice, because of changes in policies, personnel, curricula or funding. For the most current information, go to www.seattlecolleges.edu.
What kind of education do **you** want?

Seattle Colleges offers many paths to success.

1. **College Transfer**
   Take courses or earn a two-year A.A., A.B., or A.S. degree and transfer to a four-year university.

2. **Professional/Technical Programs**
   Choose from more than 135 short-term, one- or two-year degree or certificate programs in many professional/technical fields.

3. **Bachelor Degrees**
   Earn a Bachelor of Applied Science (B.A.S.) degree in several different fields.

4. **Continuing and Contract Education**
   - Lifelong Learning: Find hundreds of diverse, non-credit courses for personal or professional growth.
   - Corporate or Contract Training: Business and industry create individualized contract instruction for employees.

5. **Bridge To College / Pre-College / Concurrent Programs**
   - Adult Education: Improve your English, math or reading skills or prepare for future college-level work.
   - Get your GED or complete High School: Non-native speakers study English as a Second Language (ESL).
   - Concurrent High School/College Programs: Enroll in Running Start, Bright Futures

6. **eLearning / Distance Education**
   Fit your time and location with online, hybrid or video courses.

7. **International Programs**
   International students study ESL, Intensive English, or pursue career or college transfer courses. Local students study, volunteer or do internships abroad.

8. **Worker Retraining Program**
   Explore opportunities for laid-off or displaced workers to get training for new high-demand jobs.

**Getting Started**
See page 30 for enrollment and financial aid information or request more information at go.seattlecolleges.edu
Seattle Colleges

Mission
The Seattle Colleges will provide excellent, accessible educational opportunities to prepare our students for a challenging future.

Vision
The Seattle Colleges will be learning-centered
- in providing high-quality and innovative education
- in preparing our students for success and lifelong learning

Values
We value
- teaching and learning
- students
- diversity
- partnerships

2015–2016* Annual Profiles
Annual Attendance 44,968

SPECIAL ENROLLMENTS 2015–2016
(Unduplicated headcount across the district)
- Distance Education/eLearning: 21,573
- Running Start: 1,118
- International Students: 4,745
- Worker Retraining: 1,457

DEGREES & CERTIFICATES 2015–2016
Annual awarded: 4,534

EMPLOYEES 2015–2016**
Total: 2,112
- Teaching faculty: 1,317
  - full-time/part-time: 347/970
- Non-teaching faculty: 25
- Classified: 474
- Exempt: 321

Fall 2016 profiles
Students
- Median age: 28
- Ethnic diversity: 52%
- Male/Female: 49%/51%
- With bachelor or higher degrees: 19%
- Employed: 60%
  - full-time: 35%
- With dependents: 27%
  - single parents: 7%
- Full-time/Part-time attendance: 36%/54%

Programs
- College Transfer: 30%
- Workforce Education: 39%
- Basic Skills: 10%
- Pre-college & other: 12%

Course Funding Sources
- State-funded: 78%
- Contract-supported: 7%
- Student-supported: 16%

NOTE: Duplicated enrollment across the district may result in totals different from 100%.
* Source: Seattle College District database. Fall Quarter based on state-funded enrollment unless otherwise noted.
** State-funded

Accreditation
Seattle Colleges include North Seattle College, South Seattle College, and Seattle Central College. Seattle Vocational Institute is accredited jointly with Seattle Central College. Each college is a state-supported public institution individually accredited by the Northwest Commission on Colleges and Universities (NWCCU), an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education.

Accreditation of an institution of higher education by the NWCCU indicates that it meets or exceeds criteria for the assessment of institutional quality evaluated through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate education programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the NWCCU is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding an institution’s accredited status by NWCCU should be directed to the administrative staff of the individual institution. Individuals may also contact: NWCCU, 8060 165th Avenue NE, Suite 100, Redmond, WA 98052 – (425) 558-4224 – or www.nwccu.org.
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## Academic Calendar
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See the most current information on programs and courses at [www.seattlecolleges.edu](http://www.seattlecolleges.edu)
Learning Communities/Integrated Studies at the Seattle Colleges

The three Seattle Colleges offer students opportunities to study in learning communities, also called integrated studies, through a variety of approaches that link or cluster classes, often around a theme. A major objective of learning communities is to help students discover the interdisciplinary and integrative nature of knowledge by experiencing several different perspectives. Students learn how to collaborate in problem-solving groups, experience the importance of writing in the learning process, and develop independent and critical thinking skills through seminars, exploring books, small group work, and visual media. Examples of learning communities are Coordinated Studies courses and linked courses.

Coordinated Studies

An alternative to the traditional individual course model, Coordinated Studies courses integrate two or more disciplines into one team-taught course in which students meet for longer periods during the week and earn 8-10 or more credits. Although students receive credit for standard Seattle College courses such as ENGL 101 (English Composition I), ANTH 201 (Contemporary Issues in Anthropology), or GEOL 108 (Minerals, Gems and Fossils), they concentrate on exploring a theme, problem, or question, such as “Escaping the Matrix: Discourse of Power,” “Ways of Knowing: How We Choose What to Believe,” “Inheriting the Future,” “Insatiable Appetites: Food, Culture and Power,” or “Minerals and Metal Arts.”

Linked Courses

In linked courses, students choose from a list of designated paired classes whose content is coordinated by the instructors through common assignments. Students need to register for both “linked” classes. While not as intensive as the Coordinated Studies model, linked courses also provide integrated learning.

Common Course Numbering and “&” Courses

seattlecolleges.edu/district/catalog/ccn.aspx

As of Summer Quarter 2008, all Washington state community and technical colleges use a Common Course Numbering (CCN) system. The system identifies courses that are equivalent at community colleges throughout the state to make it easier for students who may transfer between two-year colleges. Some course numbers, prefixes, and titles have been changed to comply with these new standards. The courses with an ampersand “&” after the prefix code are part of the Common Course Numbering system. However, courses without an “&” will continue to transfer between two-year and four-year colleges under individual Direct Transfer Agreements, as in the past.

General Education at the Seattle Colleges

Definition

General Education is college-level work that introduces students to the content and methods of major areas of knowledge including humanities and fine arts, the natural sciences, mathematics, and the social sciences. General Education emphasizes the following outcomes:

- Attitudes necessary to function as a citizen and lifelong learner
- Intellectual skills required for college level inquiry and competence
- Knowledge and awareness of the complex world in which we live

Rationale

The purpose of General Education is to provide educational depth and breadth through development of essential skills in reading and writing, research and information literacy, critical thinking, problem-solving, understanding individuals and cultures, creative expression, and quantitative and scientific reasoning. These transferable skills support students as they continue in higher education, move forward in careers, and continue the process of lifelong learning.

Learning Outcomes

Each college has developed learning outcomes and specific degree requirements to support these General Education goals.
The College Transfer program offers courses in a wide range of academic fields common to undergraduate study in colleges and universities. These courses meet requirements for associate degrees and will transfer to four-year institutions within guidelines established by those schools. The courses and programs offered are designed to enable the student to make a successful transition to a baccalaureate (four-year) institution.

Students who plan to transfer to a specific college or university should work with a transfer advisor, and also request information from the baccalaureate institution(s) they want to attend.

### Transfer Degrees Summary

<table>
<thead>
<tr>
<th>DTA – Direct Transfer Agreement</th>
<th>C, N, S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate of Arts (A.A. – DTA)</strong></td>
<td>C, N, S</td>
</tr>
<tr>
<td>Two-year degree designed to transfer to a baccalaureate college or university.</td>
<td></td>
</tr>
<tr>
<td><strong>Associate in Business (A.B. – DTA)</strong></td>
<td>C, N, S</td>
</tr>
<tr>
<td>Two-year degree designed to transfer to a baccalaureate (four-year) college or university.</td>
<td></td>
</tr>
<tr>
<td><strong>Associate of Science – Transfer Degree (A.S.)</strong></td>
<td>C, N, S</td>
</tr>
<tr>
<td>Two-year degree designed to transfer to a four-year college or university in two major areas of science.</td>
<td></td>
</tr>
<tr>
<td><strong>Option 1</strong> biological sciences, environmental/resource sciences, chemistry, geology &amp; earth sciences</td>
<td></td>
</tr>
<tr>
<td><strong>Option 2</strong> engineering, computer science, physics &amp; atmospheric science</td>
<td></td>
</tr>
<tr>
<td><strong>Associate of Science (A.S. – DTA)</strong></td>
<td>C, N, S</td>
</tr>
<tr>
<td>Two-year degree designed to transfer to a four-year college or university.</td>
<td></td>
</tr>
<tr>
<td><strong>Associate in Fine Arts (A.F.A.)</strong></td>
<td>N</td>
</tr>
<tr>
<td><strong>Associate of Applied Science (A.A.S. and A.A.S.-T) Degrees</strong></td>
<td>C, N, S</td>
</tr>
</tbody>
</table>

### Associate of Arts (A.A. – DTA) Degree

The Associate of Arts (A.A.) degree DTA (Direct Transfer Agreement) is a 90-credit transfer degree that fulfills the general education requirements for most four-year degrees in arts and sciences. To earn the A.A. degree, students must achieve a cumulative grade point average of 2.0 or better in courses numbered 100 and above, complete at least 15 credits at the Seattle College awarding the degree, and meet the requirements outlined below.

Students should contact college advising offices for listings of courses that satisfy degree requirements. Students planning to transfer to a four-year institution should be aware that they must complete all admission requirements for their destination institution. In addition, students are encouraged to give early consideration to possible majors and obtain information about requirements for these majors at their destination college or university.

### A.A. Degree Learning Outcomes

The Seattle Colleges A.A. degree is designed to fulfill a set of learning outcomes for the general education of a college undergraduate in the United States in the 21st century. These learning outcomes include the following:

1. Communication skills (reading, oral or signed, written, other forms of expression): explain meaning of written work, presentations, arts, and media in different contexts and present oral, signed, written, or other forms of expression to increase knowledge, foster understanding, or promote change in an audience.

2. Critical thinking, inquiry and analysis, and problem solving: explore issues, ideas, phenomena, and artifacts to define and articulate problems or to formulate hypotheses. Analyze evidence to formulate an opinion, identify strategies, develop and implement solutions, evaluate outcomes, and/or draw conclusions.

3. Global learning and intercultural knowledge and competence: critically analyze complex, interdependent, national and global systems, and their legacies and implications, regarding the distribution of power. Reflect on how one’s position in these systems affects both local and global communities. Apply a set of cognitive, affective, and behavioral skills that support effective and appropriate interaction in a variety of cultural contexts.
4. Quantitative literacy: reason and solve quantitative problems in a wide array of contexts and use quantitative evidence to develop and communicate sound arguments.

5. Creative thinking: synthesize existing ideas, images, or expertise in original ways.

6. Information literacy: Identify, locate, and evaluate needed information in a complex and changing environment. Effectively and responsibly use that information to develop ideas, address issues, and solve problems.

7. Technology literacy: effectively and critically evaluate, navigate, and use a range of digital technologies.

8. Integrative learning: connect disciplinary and divergent ideas across contexts by synthesizing and transferring integrative learning principles to complex situations within and/or beyond the classroom.

9. Collaboration: work effectively with others to learn, complete tasks, and pursue common goals that shape, influence, and benefit the individual and/or society.

10. Ethical reasoning: examine, assess, and articulate core beliefs and values, and apply that knowledge to analyze and evaluate complex ethical situations from various perspectives.

11. Civic engagement: promote the quality of life in the civic community through actions that enrich individual life and benefit the community.

12. Foundations and skills for life-long learning: transfer previous learning to new situations, reflect on learning experiences, and initiate steps to apply effective learning strategies to improve and expand knowledge, skills, and competence.

See pages 7-9 for detailed A.A. Degree Requirements at the Seattle Colleges.

Associate of Arts or Sciences: Special Emphasis Areas

Students planning to transfer to a baccalaureate (four-year) institution and pursue a specific field of study should work closely with their advisor to plan their A.A. or A.S. degrees. In addition to the A.A. or A.S. degree, special courses of study have been designed for the following areas of emphasis at the Seattle Colleges.

- **Global Health – Central**
  The Global Health emphasis can be completed within either the A.A. or A.S. transfer degrees and places a priority on improving health and achieving health equity. The focus is on worldwide health access and improvement, reduction of disparities, and protection against global health challenges. It prepares students to work with diverse populations, provide international service, and understand the nuances of global healthcare. Contact Central Advising Office for further information.

- **Global Studies – Central**
  This emphasis can be completed within either the A.A. or A.S. transfer degrees and integrates the study of politics, economics, and the arts with the analyses of cultural practices, beliefs, and social systems. Students learn to appreciate and understand world cultures, focus on themes of global significance, and develop an interdisciplinary approach to International issues. Contact Central Advising Office to learn more.

- **Sustainable Agriculture (SAgE) – Central**
  This innovative emphasis offers interdisciplinary courses, hands-on service learning, and internship opportunities in the emerging field of urban agriculture. The emphasis provides a foundation of knowledge and skills for students interested in pursuing related education at four-year institutions or entering the green workforce. For details, contact Central Advising Office or visit seattlecentral.edu/learn/sage.

Associate in Business (A.B. – DTA) Degree CENTRAL, NORTH, SOUTH

The Associate in Business Degree is designed to satisfy lower division general education and business requirements at Washington’s public four-year colleges and universities.

Associate of Science Transfer (A.S.) Degree

The Associate of Science (A.S.) is a transfer degree for students who wish to transfer as juniors to baccalaureate institutions in the state of Washington. Degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA; however, certain transfer institutions may require a GPA higher than 2.0. At least 15 credits in college-level courses (100 or above) must be earned at the Seattle College granting the degree.

Two different study options are offered:

1. biological sciences, environmental/resources sciences, chemistry, geology, and earth sciences
2. engineering, computer science, physics, and atmospheric science

Students should contact an advisor for specific program requirements.
Associate of Science (A.S.) Degree

The Associate of Science (A.S. – DTA) is a transfer degree. However, there are certain major areas of study in which the student may not be able to take all the courses necessary to transfer with junior standing in his/her major. Contact an advisor for more information on this degree program. For specific courses leading to a premajor in a number of science fields, refer to the College Transfer section for each college. Degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA; however, certain transfer institutions may require a GPA higher than 2.0. At least 15 credits in college-level courses (100 or above) must be earned at the Seattle College granting the degree.

Associate of Fine Arts (A.F.A.) Degree

North Seattle College offers an Associate of Fine Arts (A.F.A.) degree. This degree requires at least two years of study and includes many of the A.A. degree requirements as well as specific requirements in art. While the A.F.A. degree prepares students to transfer to four-year institutions, the only college to which an A.F.A. recipient can currently transfer with junior standing is The Evergreen State College.

See North, page 105.

College Transfer

A.A. Degree Requirements

<table>
<thead>
<tr>
<th>Basic Requirements</th>
<th>15 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>30 credits</td>
</tr>
<tr>
<td>Areas of Knowledge</td>
<td></td>
</tr>
<tr>
<td>Distribution Requirements</td>
<td>45 credits</td>
</tr>
<tr>
<td>A.A. DEGREE TOTAL</td>
<td>90 CREDITS</td>
</tr>
</tbody>
</table>

Special Requirements included within the 90-credit total

Within the 90 credits required for the A.A. degree, students must complete special requirements in Integrated Studies, Communication, U.S. Culture and Global Studies, as listed below. Students should consult their college advising office for a current listing of these courses. Specially designated courses that satisfy these requirements differ by college. Special designation credit for courses taken at one of the Seattle Colleges will transfer to other colleges in the district.

- At least 8 credits of Integrated Studies. (This may be met through specially designated individual courses, linked courses, or coordinated studies programs.)
- At least one course in Communication.
- At least one course in U.S. Cultures.
- At least one course in Global Studies.

Basic Requirements

| English &101 and &102 | 10 credits |
| Quantitative/Symbolic Reasoning | 5 credits |

Students completing the QSR requirement will be able to use quantitative or symbolic reasoning to understand, analyze, interpret, and solve problems. Successful completion of any of the following classes satisfies the QSR requirement for Seattle Colleges. These courses may also satisfy the QSR requirement at baccalaureate institutions. Students should check the requirements of their destination institution.

  (* If using MATH &107 to meet both the IA proficiency requirement and the QSR requirement, students must earn a minimum 2.0 grade in the course.)
  (** MATH 120, &131, and &132 do not meet the QSR requirement at University of Washington.)
  († MATH 136 fulfills the QSR requirement)
- PHIL &120

Electives

Electives include:

- All college transfer courses numbered 100 or above
- Accounting, business administration, and transfer engineering classes
- Physical education activity courses (3 credit maximum)
- A maximum of 15 credits from a combination of the following:
  - Workforce Education Professional Technical courses numbered 100 and above
  - Human Development courses (HDC) numbered 100 and above (6-credit maximum)
  - Library research courses (6-credit maximum)
  - Cooperative Work Experience (CWE) courses numbered 100 and above (5-credit maximum)
**Areas of Knowledge Distribution Requirements**

This listing may change. Students should confer with their college advising office for the most current information.

**Visual, Literary, and Performing Arts (Humanities and Arts)**

Choices must include a minimum of two different course prefixes, and no more than 5 credits each of a world language at the 100 level and a studio/performance class (*asterisked below) may be applied to the distribution requirements.

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>ARAB 101, 102, 103</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>ASL &amp;121, &amp;122, &amp;123, &amp;221, &amp;222, &amp;223</td>
</tr>
<tr>
<td>Chinese</td>
<td>CHIN &amp;121, &amp;122, &amp;123, &amp;221, &amp;222, &amp;223</td>
</tr>
<tr>
<td>French</td>
<td>FRCH &amp;121, &amp;122, &amp;123, 204, 205, 206, 212, &amp;221, &amp;222, &amp;223, 231, 232, 233</td>
</tr>
<tr>
<td>German</td>
<td>GERM &amp;121, &amp;122, &amp;123</td>
</tr>
<tr>
<td>Humanities</td>
<td>HUM 104, 105, 110, 115, &amp;116, &amp;117, &amp;118, 120, 125, 130, 135, 140, 145, 150, 155, 160, 200, 210, 234, 261, 270</td>
</tr>
<tr>
<td>Italian</td>
<td>ITAL 121, 122, 123</td>
</tr>
<tr>
<td>Japanese</td>
<td>JAPN &amp;121, &amp;122, &amp;123, &amp;221, &amp;222, &amp;223</td>
</tr>
<tr>
<td>Journalism</td>
<td>JRN 101, 102, 103</td>
</tr>
<tr>
<td>Linguistics</td>
<td>LAN 101, 110</td>
</tr>
<tr>
<td>Literature</td>
<td>LIT 236, 238</td>
</tr>
<tr>
<td>Spanish</td>
<td>SPAN &amp;121, &amp;122, &amp;123, &amp;221, &amp;222, &amp;223, 236, 238</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>VIET &amp;121, &amp;122, &amp;123</td>
</tr>
</tbody>
</table>

**Individuals, Cultures, and Societies (Social Sciences)**

Choices must include a minimum of two different course prefixes.

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Ethnic Studies</td>
<td>AME 150, 151, 160, 201</td>
</tr>
<tr>
<td>Anthropology</td>
<td>ANTH &amp;100, &amp;106, 113, &amp;125, 130, 135, 201, &amp;206, &amp;210, 211, 212, 213, &amp;216, &amp;227, &amp;228, 250, 275</td>
</tr>
<tr>
<td>American Sign Language</td>
<td>ASL 120, 125</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL 150</td>
</tr>
<tr>
<td>Economics</td>
<td>ECON 100, 101, 102, &amp;201, &amp;202, &amp;202, 240</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>ENVS &amp;101, 150, 160, 170, 200, 202, 206, 208, 214, 294</td>
</tr>
<tr>
<td>Geography</td>
<td>GEOG &amp;100, &amp;200, 207, 230, 260</td>
</tr>
<tr>
<td>Humanities</td>
<td>HUM 170</td>
</tr>
<tr>
<td>International Studies</td>
<td>ISP 101, 105, 110, 120, 160, 170, 201, 200, 205, 210, 220, 234, 251, 255, 260, 261, 270</td>
</tr>
<tr>
<td>Political Science</td>
<td>POLS &amp;101, 111, 112, 170, &amp;200, &amp;202, &amp;203, 205, 206, 213, 220, 255</td>
</tr>
<tr>
<td>Psychology</td>
<td>PSYC &amp;100, 120, &amp;200, 205, 207, 209, 210, 217, &amp;220, 230, 235, 245, 250, 255, 257, 260, 294</td>
</tr>
<tr>
<td>Religion</td>
<td>REL 150, 151</td>
</tr>
<tr>
<td>Sociology</td>
<td>SOC &amp;101, 102, 105, 106, 107, 120, 130, 150, 170, &amp;201, 220, 230, 245, 250, 253, 265, 275, 280</td>
</tr>
<tr>
<td>Social Science</td>
<td>SSC 101, 103, 187</td>
</tr>
<tr>
<td>Social Welfare</td>
<td>SWF 200</td>
</tr>
<tr>
<td>Women's Studies</td>
<td>WMN 140, 200, 205, 213, 257</td>
</tr>
</tbody>
</table>
### The Natural World (Natural and Physical Sciences, Mathematics)

**15 Credits**

Choices must include a minimum of two different prefixes; 5 credits must be in a lab science (*asterisked below). Students may choose up to 5 credits from the following list of courses: Anthropology, Computer Science, Engineering, Geography, Mathematics, Philosophy OR Psychology (see specific courses below).

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anatomy &amp; Physiology:</strong> BIOL</td>
<td>128*, &amp;241*, &amp;242*</td>
</tr>
<tr>
<td><strong>Astronomy:</strong> ASTR &amp;100, 102, 104*, &amp;110*, &amp;115*, 201</td>
<td></td>
</tr>
<tr>
<td><strong>Botany:</strong> BOT 110*, 112*, 113*</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Science:</strong> ENVS &amp;100, &amp;101*, 150, 160, 170, 201, 202*, 203, 204*, 205, 206*, 208, 216*, 221</td>
<td></td>
</tr>
<tr>
<td><strong>Health:</strong> HEA 125, 150, 160 , 225, 228</td>
<td></td>
</tr>
<tr>
<td><strong>Meteorology:</strong> MEY 100</td>
<td></td>
</tr>
<tr>
<td><strong>Material Science:</strong> MSC 101</td>
<td></td>
</tr>
<tr>
<td><strong>Nanotechnology:</strong> NANO 101*</td>
<td></td>
</tr>
<tr>
<td><strong>Nutrition:</strong> NTR 105*, 150, 155, NUTR 100, &amp;101</td>
<td></td>
</tr>
<tr>
<td><strong>Oceanography:</strong> OCEA &amp;100, &amp;101*</td>
<td></td>
</tr>
<tr>
<td><strong>Psychology:</strong> PSYC 222</td>
<td></td>
</tr>
<tr>
<td><strong>Physics:</strong> PHYS &amp;100, 107*, &amp;114*, &amp;115*, &amp;116*, &amp;121*, &amp;122*, &amp;123*, &amp;221*, &amp;222*, &amp;223*</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainability:</strong> SUST 101</td>
<td></td>
</tr>
<tr>
<td><strong>Math:</strong> All MATH college transfer courses number 102 and above. Technical math courses NOT usable for transfer purposes.</td>
<td></td>
</tr>
<tr>
<td><strong>Philosophy:</strong> PHIL &amp;106, &amp;120</td>
<td></td>
</tr>
<tr>
<td><strong>Psychology:</strong> PSYC 222</td>
<td></td>
</tr>
</tbody>
</table>

**Up to 5 credits total allowed from the following group:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anthropology:</strong> ANTH &amp;204, &amp;205, 275</td>
<td></td>
</tr>
<tr>
<td><strong>Computer Science:</strong> CSC 110, 111, 142, 143</td>
<td></td>
</tr>
<tr>
<td><strong>Engineering:</strong> ENGR 110, &amp;111, 140, 142, &amp;214, &amp;215, &amp;224, &amp;225, 240, 271</td>
<td></td>
</tr>
<tr>
<td><strong>Geography:</strong> GEOG 205</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits Required for Associate of Arts Degree**

**90 Credits**
Washington 45

First Year Transfer Courses
The “Washington 45” is a list of courses offered in the community and technical college system that satisfy general education core requirements at the state’s public universities and most of its private universities. It was developed at the direction of the 2011 Washington State Legislature, which passed a bill requiring community and technical colleges to work with four-year institutions of higher education on the list. However, the “Washington 45” does not replace any transfer degree or articulation agreement between your college and universities. For more information contact your campus advisor or the four-year institution where you are planning to transfer.

Transfer Policy and Processes

Transfer Assistance
Transfer services and information are available at all three Seattle Colleges through the campus Advising/Transfer Centers. During their first few quarters of study at the Seattle Colleges, students are encouraged to explore the various options for majors at four-year institutions and to become knowledgeable about admissions and graduation requirements for any majors they are considering.

Representatives from local four-year institutions visit all three Seattle Colleges campuses on a regular basis to provide information regarding admissions deadlines and transfer requirements.

Students are responsible for becoming knowledgeable about the admissions and graduation requirements of the four-year institution they plan to attend.

Reciprocity Agreement
Washington community and technical colleges offer reciprocity to students transferring within the state’s community and technical college system who are pursuing A.A., A.B., A.S. or A.S.–T degrees. Students who complete an individual course that meets distribution degree requirements or fulfills entire areas of their degree requirements at one college will be considered to have met those same requirements if they plan to complete the same degree when they transfer to another community or technical college in Washington. These degree requirements include Communication Skills, Quantitative Skills, or one or more Distribution Area requirements. Students must initiate the review process and must be prepared to provide necessary documentation. For complete information, students should contact the Registrar’s Office at each college.

Transfer of Credits to Baccalaureate Institutions
Students who plan to transfer to a four-year college or university are advised to give careful consideration to the following information:

1. Students transferring to a four-year institution may apply a maximum of 90 (quarter) transferable community college credits to a baccalaureate degree. More credits may transfer at the discretion of the receiving institution.
2. It is possible to transfer with fewer than 90 credits, but special requirements may be imposed.
3. Students who plan to graduate with the A.A. or A.S. degree should make sure they have also met the admission requirements for the transfer institution. Completion of the A.A. degree alone may not necessarily fulfill admission requirements at some four-year institutions.
4. Transferable courses are numbered 100 and above, but not all courses so numbered are transferable. Receiving institutions determine which credits transfer into the college. Students planning to transfer should plan as early as possible, contacting those institutions to which they plan to transfer.
5. Unless a transfer agreement with the Seattle Colleges is in effect, the four-year school may impose additional general education requirements.
6. Graduation requirements for the bachelor’s degree are established by the four-year institution. Students at the college should choose courses according to graduation requirements of their chosen college or university. Those planning to transfer should plan as early as possible in their college programs using the following guide:
   - Consult a current catalog of the chosen school to determine entrance requirements and suggested freshman and sophomore programs in the major field of interest.
   - Confer with a college advisor about fulfilling these requirements.
   - Confer with an admissions officer at the baccalaureate institution regarding further curriculum and transfer regulations.
   - Check carefully a quarter or two before transfer to be sure all requirements will be met to the satisfaction of the four-year institution.

See “Common Course Numbering” on page 4.
Transfer Rights & Responsibilities
Source: Higher Education Coordinating Board
www.wasc.wa.gov

Student Rights and Responsibilities
1. Students have the right to clear, accurate, and current information about their transfer admission requirements, transfer admission deadlines, degree requirements, and transfer policies that include course equivalencies.
2. Transfer and freshman-entry students have the right to expect comparable standards for regular admission to programs and comparable program requirements.
3. Students have the right to seek clarification regarding their transfer evaluation and may request the reconsideration of any aspect of that evaluation. In response, the college will follow established practices and processes for reviewing its transfer credit decisions.
4. Students who encounter other transfer difficulties have the right to seek resolution. Each institution will have a defined process for resolution that is published and readily available to students.
5. Students have the responsibility to complete all materials required for admission and to submit the application on or before the published deadlines.
6. Students have the responsibility to plan their courses of study by referring to the specific published degree requirements of the college or academic program in which they intend to earn a bachelor’s degree.
7. When a student changes a major or degree program, the student assumes full responsibility for meeting the new requirements.
8. Students who complete the general education requirements at any public four-year institution of higher education in Washington, when admitted to another public four-year institution, will have met the lower division general education requirements of the institution to which they transfer.

College and University Rights and Responsibilities
1. Colleges and universities have the right and authority to determine program requirements and course offerings in accordance with their institutional missions.
2. Colleges and universities have the responsibility to communicate and publish their requirements and course offerings to students and the public, including information about student transfer rights and responsibilities.
3. Colleges and universities have the responsibility to communicate their admission and transfer-related decisions to students in writing (electronic or paper).

Transfer Agreements
Direct Transfer Agreements with Baccalaureate Institutions
The baccalaureate (four-year) colleges and universities in Washington state listed below subscribe to the Intercollege Relations Commissions (ICRC) Guidelines for direct transfer agreement (DTA). The Seattle Colleges offer both Associate of Arts and Associate of Science DTA degrees that meet ICRC Guidelines. The DTA associate degrees are recognized as fulfilling most, if not all, of the general education requirements for these institutions. Students who complete a DTA will normally be granted junior standing upon admission. Students should check with their intended transfer institution for further details regarding any additional general education, major prerequisites and admission requirements. This list is subject to change. See your advisor for updated information and details of transfer.

- Bastyr University
- Central Washington University
- City University
- Cornish College of the Arts*
- Eastern Washington University
- The Evergreen State College
- Gonzaga University
- Heritage University
- Northwest University
- Pacific Lutheran University
- Saint Martin’s University
- Seattle Pacific University
- Seattle University
- Trinity Lutheran College
- University of Washington
- University of Washington – Bothell
- University of Washington – Tacoma*
- Washington State University
- Washington State University – Tri-Cities
- Washington State University – Vancouver
- Western Washington University
- Whitworth College

*These institutions have restrictions and exceptions to the DTA.

Online DTA institutions
- Ashford University
- Capella University
- Western Governor’s University
Transfer Agreements
Seattle Colleges have partnerships and transfer agreements with the four-year institutions listed below, and are continually developing new ones. For the most accurate list of all transfer agreements, visit the Advising and Transfer Centers.

OUT-OF-STATE UNIVERSITIES
- Ashford University – Online
- Boise State University – Idaho
- Capella University – Online
- Colorado State University - Global Campus
- Dickinson State University – North Dakota
- Hawaii Pacific University – Hawaii
- Humboldt State University – California
- Indiana University-Purdue University-Indianapolis – Indiana
- Indiana University-South Bend – Indiana
- Johns Hopkins University-Carey School of Business – Maryland
- Mayville State University – North Dakota
- North Central College – Illinois
- North Dakota University System – 10 schools in North Dakota
- Northern Arizona University – Arizona
- Oregon State University – Oregon
- San Francisco State University – California
- State University of New York (SUNY) – Oneonta and Oswego campuses, New York
- Thompson Rivers University – Kamloops, BC, Canada
- University of Alaska, Fairbanks – Alaska
- University of Findlay – Ohio
- University of Minnesota, Duluth – Minnesota
- University of Montana-Missoula – Montana
- University of North Texas – Texas
- University of Victoria – Victoria, BC, Canada
- University of Wisconsin-La Crosse – Wisconsin
- Western Governor’s University – Online

Transfer Opportunities at North and South
Bachelor’s Degree Program Partnerships with North
- Eastern Washington University: B.S. in Electrical Engineering
- Washington State University Online: various online degrees
- Western Washington University: Elementary Teacher Education (B.A.E.) with Special Education and Elementary Teacher Certification
  See page 105 for details.

Bachelor’s Degree Program Partnerships with South
- Eastern Washington University: B.S. in Technology, Applied Technology Option
  See page 167 for details.
Professional & Technical Programs

The Seattle Colleges offer more than 135 workforce education and training programs. These programs offer certificates and/or degrees, and vary from 1 to 7 quarters in length. They are designed to prepare students for specific careers. Several professional technical programs also offer short-term training certificates; in some programs students may build skills and add certificates over time to progress in their fields. Contact the program office for further information.

Degrees and Certificates

C-Central  N-North  S-South  V-SVI

Certificates  C,N,S,V
More than 135 professional technical programs

Associate of Applied Science Degree (A.A.S.)  C,N,S
Preparation and qualification for employment

Associate of Applied Science – T Degree  C,N,S
(A.A.S.-T)
Two-year degree in specific professional technical programs for transfer to specific four-year institutions or to some B.A.S. degree programs at Seattle Colleges.

Bachelor of Applied Science Degree (B.A.S.)  C,N,S
Bachelor of Applied Science degrees are offered in several fields.

See pages 18-19.

Associate of Applied Science (A.A.S.) Degree

The Associate of Applied Science (A.A.S.) degree prepares students to compete for employment through development of technical and related skills and instruction in academic subjects appropriate to the occupational field.

To earn a degree within the Seattle Colleges, a student must complete at least 90 credits and have a minimum cumulative grade point average of 2.0. At least 15 credits must be earned at the Seattle College granting the degree. Students should consult an advisor or division counselor for specific GPA requirements in their programs of study.

Programs are designed and updated by advisory committees, made up of local industry leaders and labor representatives, to reflect current employment trends. Instructors bring industry experience as well as education and training to the classroom. All full-time instructors hold vocational instructor certificates and stay informed of industry changes.

A core of general education and/or related instruction courses is regarded as essential for all A.A.S. degree programs and all certificate programs of an academic year or more in length. College-level courses (100 and above) in communications, computation, human relations and selected courses from humanities, natural sciences and social sciences are required. Additional topics may include safety and environmental awareness.

Some A.A.S. programs and some courses in A.A.S. degree programs may transfer to four-year colleges or universities. Consult a program advisor or transfer institution concerning course transferability prior to enrollment.

Associate of Applied Science-T (A.A.S.-T) Degree

The Associate of Applied Science – T degree is designed to assist students who initially enrolled for a professional technical degree and who then seek to transfer to a four-year institution for a bachelor’s degree. Degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA. At least 15 credits in college-level courses (100 or above) must be earned at the Seattle College granting the degree. The A.A.S.-T degree is based on technical courses required for job preparation but also includes transfer degree general education courses.

In general, technical degree programs are not designed for general transfer to other colleges or universities; the A.A.S.-T degree prepares students for specific bachelor’s degree programs at specific institutions. Students should contact the appropriate college division dean or Advising Office for a current list of baccalaureate institutions accepting the A.A.S.-T degree.

Bachelor of Applied Science (B.A.S.) Degrees

See pages 18-19.
Certificate Programs

Certificate programs of 1–7 quarters in length prepare graduates for employment in a wide variety of professional and technical careers. Requirements include satisfactory completion of an approved program of study with a minimum 2.0 cumulative grade point average. For admission to a certificate program, an applicant must be at least 18 or be a high school graduate. Tests and a minimum proficiency may be required for certain programs. Waiting lists and application fees may be required of others. Education and work experience may be accepted to satisfy part of the requirements if specifically related to the individual program of study. Credits earned in certificate programs are generally applicable toward the A.A.S. degree.

NOTE: Courses must be numbered 100 or above to count toward certificate programs.

Short-term Certificates

seattlecolleges.edu/shortcertificates

Short-term certificates have fewer than 20 credits. They usually cover an entry-level or specific skill set needed for that industry. Students can complete a short-term certificate and enter/re-enter the workplace with improved skills. They may also continue on a pathway to a higher certificate or degree, and some or all of the credits from the short-term certificate may apply to the next level certificate or degree.

Stackable Certificates

www.seattlecolleges.edu/shortcertificates

Among these short-term certificates are some that are considered “stackable” certificates. Stackable certificates are short-term certificates of fewer than 20 credits each, which are specifically designed to build, or “stack” sequential skills and credits. On completion of each certificate, students can return to the workplace with added skills or they can continue building additional skills at the next level in the stackable series of certificates. Taken together, stackable certificates lead to a sequence of increasing skills, potential job advancement and/or cumulative credits toward a higher certificate or degree.

For example, in Wood Technology, students can take 18-credit certificates independently in Carpentry, Finishing and/or Framing Fundamentals. These skills can lead to jobs, or students can accumulate the skills, which can lead to more job skills, further certificates or an A.A.S.-T degree. In Welding, there are six levels of skill. Each new skill level can increase job potential for students who need to stop studies to work. On returning to school, students resume work at the next certificate level, accumulating skills which can lead to further certificates and/or an A.A.S. degree. Contact the program for more information. New certificates are frequently added as industry needs change.

(Note: For programs with A.A.S. degrees and certificates of more than 20 credits, see the list on the next page.)

Related Instruction for Certificates and Degrees

Definition

Each Professional Technical certificate or degree of 45 credits or more includes Related Instruction, the non-technical portion of study providing instruction in the areas of communication, computation, and human relations.

Rationale

The purpose of Related Instruction is to provide educational depth and breadth through development of essential skills in reading and writing, research and information literacy, in-person and media-based communication, critical thinking, problem-solving, understanding individuals and cultures, and quantitative or symbolic reasoning. These transferable skills support students as they continue in higher education, move forward in careers, and continue the process of lifelong learning.

Certificates of 45 credits or more

Related Instruction may be taught as embedded content (33 hours in each area) or as separate courses aligned with program outcomes.

Associate of Applied Science Degree

A.A.S. students will complete classes in Related Instruction college-level courses, including classes in communication, computation, and human relations. Individual programs identify courses which fulfill these requirements.
Professional Technical Programs

Degrees and certificates of 20 or more credits (2 – 7 quarters in length) are offered in the professional and technical career areas listed below, and several areas also offer Bachelor of Applied Science degrees. For the most current list please visit seattlecolleges.edu/district/catalog/ccprotech.aspx.

C-Central  N-North  S-South  V-SVI

**Arts/Design/Graphics/Media**
Apparel Design & Development ........................................ C
Graphic Design .................................................................. C
Photography, Commercial .................................................. C

**Automotive Technology/Diesel**
Auto Body Collision Repair .............................................. S
Automotive Technology ...................................................... S
Diesel & Heavy Equipment Technology .............................. S
NATEF Certificates ............................................................. S

**Aviation Maintenance/Aeronautical Technologies**
Aeronautical Technology ..................................................... S
Aviation Maintenance/Aviation Airframe Mechanic ................. S
Aviation Maintenance/Aviation Powerplant ............................. S
Aviation Maintenance/Aviation Powerplant Mechanic .......... S

**Business/Accounting**
Accountancy (CPA Preparation) ......................................... N
Accounting ....................................................................... N,S
Administrative Assistant ..................................................... N
Bookkeeping ..................................................................... N
Business Information Technology ......................................... C,S
Computerized Accounting Technology ................................. N
Entrepreneurship .................................................................. N
General Business .................................................................. N
International Business B.A.S. degree .................................. N
International Trade ............................................................. N
Medical Front Office .......................................................... V
Medical Office Professional ................................................ S
Project Management ............................................................ N
Retail Management ............................................................. N
Supervision and Management ................................................ S

**Child and Family Studies** ............................................... C

**Construction/Carpentry/Building Trades/Apprentice Training**
Pre-Apprentice Construction Training (P.A.C.T.) .................. V
Building Trades Apprentice – Journey Level Programs .......... S
Includes courses for Bricklayers, Carpet & Tile Layers, Construction Line Clearance/Tree Trimmers, Construction trades, Electrical workers, Traffic flaggers, Glassworkers, Ironworkers, Meatcutters, Painters, Welders

Cabinetmaking & Architectural Woodworking ..................... C
Carpentry ........................................................................... C
Marine Carpentry/Boatbuilding (under revision) .................... C
Sustainable Building Science Technology B.A.S. degree ...... S
Wood Technology ............................................................... C
CNC Machining ................................................................... S

**Cosmetology** .................................................................. V

**Communication**
Communication, Business & Media .................................... N
Communication & Media Arts .............................................. N

**Culinary Arts/Food Production/Wine Industry**
Banquets & Catering ......................................................... S
Culinary Arts ....................................................................... C,S
Hospitality Management B.A.S. degree .............................. S
Pastry & Baking Arts ............................................................. S
Restaurant Production ........................................................ S
Specialty Desserts & Breads .................................................. C
Wine Making ....................................................................... S
Wine Marketing & Sales ...................................................... S
Wine & Food Pairing ............................................................. S

**Education**
Early Childhood Education B.A.S. degree ............................ N
Early Childhood Education Initial State Certificate and Short State Certificates of Specialization.............................................. N
Parent Education ............................................................... N
Professional Technical Teacher Education B.A.S. degree .... S

**Electronics/Engineering/Telecommunications**
Aviation Electronics Technician ........................................... N
Broadband Cable Technology .............................................. N
Electronics Engineering Technology ..................................... N
Electronics Technology ....................................................... N
Electronics Telecommunications Technology .......................... N
Engineering Technology ...................................................... S
Industrial Power & Control Technology ............................... N
Sustainable & Conventional Energy & Control Technology .... N
### Professional/Technical Programs

#### Engineering Graphics and Design
- Architectural Engineering Drafting ........................................... N
- Engineering Graphics & Design Technology ............................... S

#### Health-Related Professions
- Allied Health B.A.S. degree .................................................... C
- Allied Health Sciences ............................................................ C,N
- Applied Behavioral Science B.A.S. degree ................................. C
- Community Health & Education / Allied Health B.A.S. degree ...... C
- Dental Assistant ........................................................................ V
- Dental Hygiene / Allied Health B.A.S. degree ............................... C
- Emergency Department Technician .......................................... N
- Emergency Medical Technician ................................................ N
- Expanded Function Dental Auxiliary ........................................ C
- Healthcare Services Management / Allied Health B.A.S. degree ... C
- Healthcare Technology Management ........................................ N
- Medical Administrative Specialist .......................................... V
- Medical Assisting/Medical Assistant ........................................ N,V
- Medical Fundamentals for Clinical Research Professionals ......... N
- Medical Office Administration ................................................ N
- Medical Office Professional ..................................................... S
- Nursing Assistant – Certified .................................................. C,N,S
- Nursing Assistant – Certified (I-BEST) ...................................... N,S
- Nursing (Practical – LPN) ......................................................... N,S
- LPN to RN ................................................................................. C,N,S
- Nursing (Registered – RN) (Associate’s Degree) ...................... C,N,S
- Opticianry .................................................................................. C
- Pharmacy Technician ............................................................... N
- Phlebotomist (I-BEST)/Phlebotomy ............................................ N,V
- Respiratory Care / Allied Health B.A.S. degree ............................ C
- Surgical Technology ................................................................... C

#### HVAC
- HVAC Sustainable Building Engineering Technician ................ N
- HVAC Technician ....................................................................... N
- HVAC Technology & Project Management ................................. N

#### Information Technology
- Application Development B.A.S. degree .................................... N
- Applications Support .................................................................. C
- Computer Support Technician (I-Best) ........................................ S,V
- Computing Technology ............................................................... S
- Database Administration & Development .................................... C
- IT Controlled Electronic Systems .............................................. N
- IT Systems Specialist ............................................................... S
- Mobile Product Development Specialist ..................................... C

#### Network Administration
- Network Administration ............................................................ S
- Network Design & Administration ............................................. C
- Network Design & Administration Cisco .................................. C
- Network & Server Administration Specialist ............................ N
- Programming ............................................................................. C
- Programming and Application Development ............................ N
- Web Design ................................................................................ C
- Web Development ..................................................................... C

#### Landscape Horticulture
- Landscape Design & Construction ............................................. S
- Horticultural Studies .................................................................. S
- Sustainable Land Management .................................................. S

#### Maritime Training/Seattle Maritime Academy
- Deckhand Cook ......................................................................... C
- Marine Deck Technology ........................................................... C
- Marine Engineering Technology ................................................ C

#### Nanotechnology
- ......................................................................................... N

#### Real Estate
- Appraisal (Trainee) .................................................................... N
- Commercial Real Estate ............................................................ N
- Escrow ..................................................................................... N
- Loan Originator ......................................................................... N
- Loan Processing ......................................................................... N
- Property Management .............................................................. N
- Real Estate Sales (Basic & Advanced) ......................................... N

#### Social and Human Services
- Applied Behavioral Science B.A.S. degree ................................. C
- Chemical Dependency Specialist .............................................. C
- Service-Learning ........................................................................ C
- Social and Human Services ....................................................... C

#### Watch Technology
- ............................................................................................ N

#### Welding Fabrication Technology
- .............................................................................................. S

#### Work Experience/Cooperative Education/Internships
- On-the-job learning for college credit ......................................... C,N,S
### Professional Technical Programs with Short-term Certificates

www.seattlecolleges.edu/shortcertificates

#### Automotive Technology
- Mechanical & Electrical Components ........................................... S
- NATEF Certificates ................................................................. S

#### Aviation Composites
- General Aviation for Composites .............................................. S
- Aviation Composites Lab ........................................................... S

#### Building Sciences (Georgetown)
- Basic Weatherization Technician .............................................. S
- Level I Commercial Energy Auditing ......................................... S
- Residential Energy Auditing ....................................................... S

#### Business / Accounting
- Accounting Achievement .......................................................... N
- Accounting / Bookkeeping – I-BEST ........................................... N
- Accounting Fraud ................................................................. N
- Accounting Office Assistant I & II ........................................... N
- Administrative Specialist ......................................................... N
- Business/Accounting Tax Preparation ........................................ N
- Customer Service .................................................................... N
- Entrepreneurship Short-Term Certificate .................................. C
- Medical Office Assistant ............................................................ S
- Not-for-Profit Management ......................................................... N
- Small Business Accounting Short-Term Certificate ..................... C
- Project Management ............................................................... N

#### Construction / Carpentry
- Carpentry Fundamentals .......................................................... C
- Finish Fundamentals ................................................................ C
- Framing Fundamentals ............................................................. C

#### Early Childhood Education ...................................................... N

#### Emergency Medical Technician ............................................. N

#### Engineering Graphics and Design
- Building Information Modeling (BIM) ........................................ N
- CAD for Design & Construction ............................................... N

#### Green Energy*
- ................................................................. N

#### Health-Related Professions
- Industrial First Aid (Georgetown) ............................................ S
- Patient Care Technician ............................................................. C
- Home Care Aide (I-BEST) ......................................................... S
- Nursing Assistant – Certified ................................................. C,N,S
- Medical Coding ...................................................................... S
- Surgical Tech: Central Supply Instrument Technician ............ C

#### Industrial Vehicles Program .................................................. S

#### Information Technology
- Computer Maintenance Fundamentals ..................................... N
- Cisco Certified Network Associate .......................................... N
- Cisco Specialist I, II, III ............................................................. C
- Linux/UNIX Admin ................................................................ N
- Microsoft Specialist I, II, III ..................................................... C
- Microsoft Windows ............................................................... N

#### Job Readiness Program (Pivot Point)* .................................... S

#### Maritime Academy
- Able Seamen’s, Community & Industry Support Courses ........ C
  - Including Basic Seamanship and Deck Skills, Celestial,
    Coastal & Electronic Navigation, Diesel Engines, Electricity
    for Boaters, Marine Safety & Survival, Vessel Handling.

#### Phlebotomy ........................................................................... N,V

#### Real Estate
- Commercial Real Estate ......................................................... N
- Green Real Estate ................................................................. N
- Real Estate ............................................................................. N

#### Social & Human Services
- Management in Human Services .............................................. C
- Prevention Specialist ............................................................... C

#### Supervision & Management
- Personnel Management ............................................................ S

#### Warehouse & Distribution ...................................................... S

#### Welding
- Welding, Levels 1-6 ................................................................. S
- Maritime Shipyard Intensive Welding ........................................ S
  - *For information call Worker Retraining at (206) 934-5835 (S)
    or (206) 934-3854 (C).

seattlecolleges.edu/bachelors
Bachelor’s Degrees

The Bachelor of Applied Science degrees (B.A.S.) build on associate degrees that provide workplace skills in specific career areas, such as Hospitality, IT or Business. When compared to traditional bachelor’s degrees, applied baccalaureate degrees incorporate more applied, hands-on learning focused on a particular industry. They are designed with strong internship components, and often offer credit for prior learning and workplace experience. Tuition rates are different for upper division courses; see the rate chart on page 19.

The Seattle Colleges currently offer the following bachelor’s degrees. See the individual college sections of this catalog for specific courses and sequences for each of these degrees. More bachelor’s degrees are in the planning stages. For up-to-date information visit the seattlecolleges.edu/bachelors/.

Allied Health – Central

(206) 934-4347
seattlecentral.edu/bachelors/allied-health

The Bachelor of Applied Science in Allied Health Sciences degree is for those students who have completed allied health occupational certificates, health-related professional licenses, and allied health associate degree programs. Graduates will help meet the growing demand for baccalaureate level allied health practitioners in the Seattle-King County area. Allied Health B.A.S. degree students select one of four allied health tracks:
- Dental Hygiene
- Healthcare Services Management
- Respiratory Care
- Community Health & Education

Each track provides advanced workforce skills and academic depth, and has specific prerequisites and entry schedules. Consult with the department and see an advisor for details.

See page 59 for detailed information.

Application Development – North

(206) 934-7025
northseattle.edu/bas-app-development

The Bachelor of Applied Science in Application Development provides an opportunity for students who already have an associate degree, including technical associate degrees or equivalent credits, to obtain a bachelor’s degree. The B.A.S. degree focuses on industry-relevant skills needed by software developers and programmers who develop, create, and modify general computer applications software, mobile applications, or specialized utility programs. Students learn to analyze user needs and develop software solutions and design or customize software. The emphasis is on solving real world application problems that meet customer needs.

See page 63 for detailed information.

Applied Behavioral Science – Central

(206) 934-3101
seattlecentral.edu/bachelors/abs

The Bachelor of Applied Science in Applied Behavioral Science offers a substantive, human services four-year degree for direct service practitioners. This program is designed for students with an Associate of Applied Science two-year degree in social and human services, child and family studies, interpreting services or a related degree. Applications are accepted for Fall and Winter quarter entry. A minimum 2.5 cumulative GPA is required for application; however, entry to the program is competitive.

See page 62 for detailed information.

Early Childhood Education – North

(206) 934-4587
northseattle.edu/bas/early-childhood-education

The Bachelor of Applied Science in Early Childhood Education is administered by North Seattle College with instruction located at Seattle Central College. The program provides professional development training for early care and education professionals seeking positions as lead teachers or early learning administrator, allowing them to keep pace with the increasing professionalization of the field. The curriculum is designed to align with national accreditation standards. The ECE B.A.S. degree is built on the Statewide Stackable certificates and the Associate in Applied Science (A.A.S.) and Associate of Applied Science Transfer (A.A.S.-T) degrees.

See page 107 for detailed information.

Hospitality Management – South

(206) 934-6783
southseattle.edu/bas/hospitality-management

The Bachelor of Applied Science in Hospitality Management at South Seattle College prepares those students who have completed a two-year technical degree or approved associate’s degree with a broad set of competencies in the hospitality industry. Students take upper-division classes that explore various positions in the hospitality field which includes tourism, hotel operations, restaurant management, catering, cruise ships operations, casino operations, and travel. This program is unique in its focus on providing applied management training in the hospitality industry.

See page 166 for detailed information.
**International Business – North**

(206) 934-7794

northseattle.edu/programs/bas-international-business

The Bachelor of Applied Science in International Business is a pathway for students who have completed a two-year technical degree or approved associate degree to pursue a bachelor’s degree. The program leverages existing business/accounting coursework and adds a combination of upper division courses in international business and hands-on learning experiences to prepare graduates to work in the international business industry. Students will complete a practicum as well as an internship, giving them important real world experience and cultural awareness.

*See page 107 for detailed information.*

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**IT Networking – Central**

(206) 934-3150

seattlecentral.edu/programs/network/

The Bachelor of Applied Science in IT Networking prepares students for high-demand occupations, including computer and network administrators, cloud solutions specialists, and security analysts. The degree emphasizes growing regional demand for employees with advanced certifications and skills including Cisco Certified Network Professionals, programming skills, mobile application security and cloud based hybrid environments. Additionally, the B.A.S. program prepares graduates for collaborative, team and project-based skills emphasizing communication, building relationships, problem solving, and plan and structure tasks while considering time and resource allocations.

*See page 64 for more detailed information.*

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**Professional Technical Education & Instructional Design – South**

(206) 934-5375

southseattle.edu/bas/professional-technical-teacher-education

The Bachelor of Applied Science (B.A.S.) degree in Professional Technical Education & Instructional Design prepares students who have completed a two-year technical degree or approved associate degree and a minimum of two years related work experience for professional teaching positions at community and technical colleges. The upper-division coursework that focuses on the complexities of the adult learner, the role of community colleges in society, and issues of equity. Students will learn how to shift their focus from teaching purely for content mastery to student-centered learning and leadership.

*See page 166 for detailed information.*

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**Sustainable Building Science Technology – South**

(206) 934-5375

southseattle.edu/bas

The Bachelor of Applied Science (B.A.S.) degree in Sustainable Building Science Technology prepares students who have completed a two-year technical degree or approved associate degree for professional jobs managing the operations of high-tech buildings. Students enroll in upper-division classes that focus on building functions and project finance with the goal of making facilities more durable, sustainable, efficient, and economical. Graduates will be eligible for employment in diverse fields such as operations maintenance, capital programs and project management, strategic planning and portfolio management, and corporate real estate finance.

*See page 167 for detailed information.*

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**Fall 2016–Summer 2017 Tuition Rates* for B.A.S. (Upper Division) Courses**

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For each credit between 19 and 25

Resident/Non-resident .................. $109.36

(U.S. Citizen, INS Permanent Resident)

International .......................... $598.84

*NOTE: Check current amounts at www.seattlecolleges.edu/district/paying/tuitionfees.aspx.*
Community Education
Serving the community by offering a range of courses at reasonable cost, Community Education classes are mostly non-credit and non-graded. Most are taught by community members who are experts in their fields. Classes may range from one evening to a full quarter in length. Costs vary by class.
Classes include personal enrichment or professional development in areas as diverse as arts and crafts, computers, dance and exercise, food and wine, foreign languages, gardening, job hunting, financial planning, and more. Many Continuing Education classes are available online as well.
Computer training classes are available for all skill levels in applications such as Word, Excel, Microsoft Office, computer languages, database software, web design, programming, networking, and more.

Professional Education
Financial Planning
South Seattle College is an affiliate of the College for Financial Planning, offering classes for those seeking to develop a career or study for national certification as a financial planner.

Short Term Certificates
Seattle Central College offers a number of short-term certificate programs to help upgrade skills or prepare for a career change. Certificates are offered in AutoCAD, Nutritional Therapy Practitioner, Teaching English to Speakers of Other Languages (TESOL), and Medical Marijuana Consultant Certificate Program. For more information visit learnatcentral.org.

Senior Adult Education
South Seattle offers classes and discussion groups designed for senior adults. Classes normally are held during the daytime, on campus, or in senior or retirement centers.

Teacher Training
Seattle Central offers clock hours for K-12 educators, classes held online or on campus.
North offers teacher clock hours for most courses, including Continuing Ed courses.
South offers Career and Technical Education (CTE) Certification for business and industry professionals to become secondary school teachers.

Corporate & Customized Contract Training
Business and industry representatives can select from a growing range of management and employee training, certificate training programs and development services through corporate and customized contract training offered by all of the colleges. Courses may be held at the employer’s site or at the Seattle Colleges. Continuing education units may be granted. Contact:
corporatetraining.seattlecolleges.edu
Joanne Lee, Business Development Manager
(206) 934-6341, joanne.lee@seattlecolleges.edu
Thesvy Cashen, Project Manager
(206) 934-3856, thesvy.cashen@seattlecolleges.edu
Central: Continuing Education
Gabrielle Bachmeier, Director
(206) 934-5449
gabrielle.bachmeier@seattlecolleges.edu
North: Continuing Education & Contract Training
Christy Isaacson, Director
(206) 934-3706
christy.isaacson@seattlecolleges.edu
South: Continuing Education
Luisa Motten, Director
(206) 934-6782
luisa.motten@seattlecolleges.edu
Georgetown Campus: Corporate & Customized Training
Bob Embrey, Interim Director
(206) 934-5856
bob.embrey@seattlecolleges.edu
Basic studies courses provide instruction for those who want to improve their English, to improve basic verbal and math skills, to earn a high school diploma or GED® in order to get better jobs, to continue their education and prepare for college-level work, or to enter college while still in high school. Each of the programs in this area is designed to meet a particular set of student needs.

**Seattle Central College**
Basic & Transitional Studies
(206) 934-4180
seattlecentral.edu/basic/

**North Seattle College**
Basic & Transitional Studies Division
(206) 934-7303
northseattle.edu/pre-college

**South Seattle College**
Basic & Transitional Studies Division
(206) 934-5363
southseattle.edu/bts/

**Seattle Vocational Institute**
Basic & Transitional Studies
GED/ABE/ESL/HS21+
(206) 934-3264
svi.seattlecolleges.edu/basic-and-transitional-studies/

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**Bridge to College Programs**

- Developmental Education
- Transitional English as a Second Language (ESL)
- Concurrent High School / College Programs
- High School / College Preparation Programs
- Integrated Basic Education Skills Training Programs (I-BEST)

**Pre-College Programs**

- Adult Basic Education
- English as a Second Language (ESL)
- GED® Preparation
- High School Completion (including High School 21+)

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**Developmental Education**

**English, Mathematics, and Human Development**

Many students entering college or returning after time away from studies need additional work to prepare for college-level courses. For these students, the Seattle Colleges offer a series of courses in English, mathematics, and human development. Placement in one or more of these courses is determined by performance on placement tests required for admission to the specific college program or courses. Courses in this category are those numbered below 100. They are described in the course description sections for English, mathematics and human development. For further information, contact the Basic and Transitional Studies program advisor.

**Transitional English as a Second Language (ESL)**

Placement in Transitional ESL classes (ESL 093-099) is done by standardized placement testing. These courses prepare students for college-level work with increasing emphasis on note-taking, composition, oral presentation, and class discussion at high levels. Although these classes do not count as credit for college-level work, ESL 093-099 can be covered by financial aid. Tuition for these classes is the same as regular tuition.

*For information on pre-transitional ESL classes (levels 1-5), see page 23.*

*NOTE: International Students should take intensive English classes through International Programs, page 28.*
**Concurrent High School/College Programs**

These programs allow students to begin college studies while still in high school, obtaining credit for both high school and college courses.

**Running Start**

Central (206) 934-3820  
seattlecentral.edu/runstart  

North (206) 934-3682  
northseattle.edu/running-start  

South (206) 934-5387  
southseattle.edu/runningstart  

Running Start is a program that allows qualified high school juniors and seniors to register for college level courses while remaining enrolled at their local high school. Full to partial tuition is paid for by the state; students pay mandatory fees, buy their own books, and provide their own transportation. To qualify students must take a placement test and be ready for college level coursework. As a dual enrollment program, students receive both high school and college credit, thus accelerating their progress through the education system. Running Start is a good option for high school students who are ready to start college early.  

For information about preparing for and taking placement tests: beforeyoutest.org.  
For more Information about the Running Start program, visit: sbctc.ctc.edu/college/s_runningstart.aspx  

**Bright Future – SVI**  
(206) 934-6304  
svi.seattlecolleges.edu/bright-future/  

The Bright Future Program is a Running Start-funded program serving students from all area high schools.  

The Bright Future program gives students an opportunity to start their college courses early by allowing qualified high school students access to accredited programs at Seattle Vocational Institute (SVI). The program is designed to assist the participants in earning a high school diploma and a certificate of completion in one of SVI’s professional technical programs. Students are eligible to enroll in the vocational programs of the Allied Health Division (Dental Assistant, Medical Administrative Specialist, Medical Assistant, Medical Front Office and Phlebotomy), Business Computers Division (Foundation Certificate Office Clerk), the Pre-Apprenticeship Construction Training program and the School of Cosmetology. Coursework completed at SVI counts toward high school graduation requirements as well as professional/technical certification.  

Bright Future students attend SVI tuition-free. Students are responsible for the cost of mandatory student fees, transportation, books, uniforms and supplies. Students eligible for free or reduced lunch at their high school are eligible for the fee waiver program. Financial assistance through BF Dollars for Scholars is available for students who qualify.

**High School to College Preparation Programs**

**Learning Center Seattle – Central**  
(206) 934-6959  
southseattle.edu/running-start  

Learning Center Seattle is an Open Doors program that serves students ages 16-21 who have separated from high school without a diploma. LCS offers college readiness and basic skills instruction that leads students to and through their GED® credential and into college programs. Tuition and course materials are free for eligible students and additional support is provided to keep students in school. Students receive individual case management and college navigation support.

**Career Link High School – South**  
(206) 934-6475  
southseattle.edu/programs/career-link  

Career Link at South Seattle College prepares students for success in college and their careers while they work toward earning a high school diploma. The program serves students between the ages of 16 and 21 who have left high school without a diploma. Tuition and materials are free and support is available for other needs.  

Career Link at South offers support through this program and other campus programs for students to enroll in regular college classes. All Career Link students receive ongoing academic advising and assistance to ensure they are on track to graduate and have a High School & Beyond plan in place.

**TRIO Educational Talent Search – South**  
(206) 934-6401  
southseattle.edu/trio/talent-search/  

The purpose of TRIO Talent Search is to help low-income and potential first-generation college students successfully graduate from secondary school and enroll in post-secondary education. This federally funded program serves 580 students each year from five secondary schools and two middle schools located in West Seattle. Students are provided with services directly at their school sites during the school year by program staff. Students must apply for the program, be deemed eligible, and be accepted before receiving any program services. Services that are offered and provided to students, both in individual and group settings, include academic advising and assistance with secondary course selection, postsecondary information and application assistance, financial aid information and application assistance, financial literacy information, college entrance examinations information and registration assistance, career awareness and planning information, connections to tutorial services, and college campus tours and visits.
Upward Bound – South
(206) 934-6676
southseattle.edu/programs/trio/upward-bound/

The purpose of TRIO Upward Bound is to provide low-income and potential first generation students with the skills and motivation to complete high school, go to college, and graduate from college. This federally funded TRIO program serves 132 students each year from four secondary schools in West Seattle and Seatac, via two Upward Bound grants. The goal is to maximize students’ potential for graduation from high school and subsequent college enrollment. Students are provided with services directly at their school sites during the school year by program staff, and on campus at SSCC during their summer program. Students must apply for the program and be accepted before receiving any program services. TRIO Upward Bound students receive services which include instruction in math, science, foreign language, SAT preparation, and arts/other electives; academic tutoring and instruction in core academic subjects; academic advising and assistance with secondary course selection; post-secondary information and application assistance; financial aid information and application assistance; financial literacy information; college entrance examinations information; registration assistance; career exploration and planning, and educational field trips and activities. The year-round program includes a six-week summer program on campus at South for intensive academic and college preparatory activities.

Pre-College Programs

Adult Basic Education

Central (206) 934-4180
North (206) 934-7303
South (206) 934-5363
SVI (206) 934-3264

Adult Basic Education (ABE) classes are for adults who wish to improve their reading, writing, and math skills. Students can start at a level matching their current skills and progress at their own pace. Classes in basic math, reading, writing, and communication skills are designed to help adults become more self-sufficient, improve their job prospects, prepare for the high school equivalency options, such as the GED, or qualify for entry into post-secondary education programs. Course descriptions are listed under ABE though some classes may also be listed under HSC for students who enroll in GED® and High School 21+ classes concurrently. Classes are non-credit. Tuition is low, currently $25 per quarter (subject to change).

English as a Second Language (ESL)

Central (206) 934-4180
North (206) 934-7303
South (206) 934-5363
SVI (206) 934-3264

English as a Second Language (ESL) classes are offered to help non-native speakers communicate in English, increase their understanding of American culture, and advance toward their college and career goals. Conversation, pronunciation, reading, writing, and grammar are taught in the context of work and college readiness, digital literacy, and other topics designed to help students advance along career pathways. These non-credit courses cost $25 per quarter tuition (subject to change). Course descriptions are found under ESL. When students test high enough, they can move on to Transitional ESL classes (ESL 093-099), which concentrate on academic preparation skills. Tuition is low, currently $25 per quarter (subject to change).

NOTE: International Students should take Intensive English classes through International Programs, page 28.
GED* Preparation

Central  (206) 934-4180  
North  (206) 934-7303  
South  (206) 934-5363  
SVI  (206) 934-3264

Adults may demonstrate that they have reached an education level equal to a high school diploma by taking the GED® test. Students who pass the GED® tests earn a GED® certificate, accepted by colleges, vocational programs, trade unions, and many employers as equivalent to a high school diploma. Contact the college offices for fee information. To prepare for this test, the Seattle Colleges offer courses that cover the subjects tested: reasoning through language arts, mathematics, science, and social studies. A prerequisite for enrollment in GED® classes is the ability to read at or above eighth grade level, or completion of ABE Level 4. Tuition is low, currently $25 per quarter (subject to change).

See page 298 for course descriptions under GED*.

High School Completion Options

Central  (206) 934-5408  
North  (206) 934-7303  
South  (206) 934-7946

- All students who are 21 years of age and older and who earn an associate’s degree of any type from Seattle Colleges are eligible to submit a written request for and to receive a college-based high school diploma. These individuals are not required to complete the State Board of Education high school graduation requirements.
- Running Start students who complete an associate’s degree are eligible to request a high school diploma at any age. These individuals are not required to complete the State Board of Education high school graduation requirements.
- The Seattle Colleges also offer High School Completion options to students who have not completed their high school diplomas. With this option students must have a minimum of 19 credits which include required courses. Students will also need to complete a culminating project, a “High School and Beyond” plan, and pass the High School Proficiency Exam (HSPE).

Students planning to work towards a high school diploma should obtain a copy of “Requirements for the High School Diploma” from the Advising or Admissions Office for complete information. These individuals are required to complete the State Board of Education’s high school graduation requirements. The requirements are listed below.

Option A: Standard High School Diploma

100 college credits are required since the class of 2013.

A high school diploma may be earned by completing 95 (or 100) college credits, including required and approved elective courses. Transfer credit may be approved for courses completed at other institutions; the final course must be taken at one of the Seattle Colleges and a minimum of 2.0 GPA must be achieved.

Students who have not completed high school and are age 19 or older may enroll in this option for a reduced tuition. Students 18 or younger must pay full tuition unless enrolled in a Running Start program through a participating high school.

Requirements may vary slightly from college to college. A number of other courses may be substituted for these requirements. Obtain a copy of “Requirements for the High School Diploma” and advice from a counselor or advisor at the college you plan to attend.

Note: A 5-credit class equals one year of study in high school.

English ................................................. 15
Fine Arts (Drama, Music or Art) ......................... 5
Pacific Northwest or Washington State History .......... 2.5
U.S. History I (includes U.S. Constitution) ............. 5
Contemporary World Problems, World History or
   World Geography ..................................... 5
Mathematics Series (Pre-Algebra, Algebra I or math class
   at student’s placement level)* ........................ 10
   *15 cr for the Class of 2013 and beyond
Science (Two science courses, one of which must be a lab
   science, for which prerequisites have been met) ........ 10
Occupational Education (May be chosen from any
   Professional Technical courses) ....................... 5
Physical Education (May be waived with
   permission at C,S: not at N) ........................... 10
Approved Electives (from college transfer or Professional
   Technical courses; quantity varies, depending on
   number of required courses), minimum ............... 27.5
   *(72.5 for class of 2013 and beyond)

Required credits ................................... 67.5 - 72.5

ELECTIVE CREDITS 27.5

TOTAL CREDITS 95 - 100

(100 for class of 2013 and beyond)

Option B: Associate Degree Conversion Diploma

NOTE: This option is not automatic, and procedures vary from campus to campus. Consult an advisor.

Upon successful completion of the Associate of Arts (A.A.), Associate of Science (A.S.), or Associate in Business (A.B.) degree, and by taking the following courses, the student may be granted a high school diploma in addition to the Associate’s degree: U.S. History I (5) or POLS & 202 (5) and Washington State History (2.5) or satisfaction of requirement. Check with advisor.
SUBSTITUTING COURSES
Several pre-college transfer and college transfer courses may be substituted for required high school courses. Students who want to earn college credit while fulfilling high school graduation requirements should consult with the Advising Center or high school completion program director.

ELECTIVE COURSES
Elective courses may be selected from the high school completion program and the following areas: vocational, general studies (liberal studies), college preparatory courses in math and English. Work experience may also qualify for credit at some colleges. Check with your college advisor. Credits could be granted on proof of satisfactory employment (405 hours = 1 high school credit or 5 college credits).

Option C: High School 21 +
Adults who lack a high school diploma now have a new way to get a second chance. High School 21+ allows students to earn high school credit by completing coursework in our Basic and Transitional Studies division. It’s less expensive than the Standard High School Diploma program, and graduates earn a Washington State diploma rather than a GED® or other certificate.

To be eligible, students must be 21 or older, lack a high school diploma, and attend an orientation session where they qualify to receive services from the BTS division. Students must also provide a copy of their high school transcript, as they will take classes based on any gaps between their transcript and the graduation requirements established by the Washington State Board of Education. Those gaps can be filled by taking coursework, by demonstrating mastery of competencies of the graduation requirements in ways other than coursework, or by providing evidence of prior-learning, such as professional certifications, college transcripts, or other documentation.

Tuition Waiver for High School Completion
80% of the regular tuition is waived for students who fulfill the following criteria:
1. Age 19 or older
2. Resident of the State of Washington

To receive a tuition waiver, a student must submit an application for high school diploma completion.

Students 18 years old and younger who have not graduated from high school must pay the standard tuition fees for their courses unless they enroll in Running Start (see page 22). Non-residents will be charged the resident tuition fee. These students must also be approved to attend one of the Seattle Colleges by the Director of Admissions or College Underage Advisor and obtain a letter of release from their school district. Seattle Public School District students should contact the Office of Student Placement.

Seattle Colleges offer a wide range of eLearning/Distance Education options for the completion of over 250 courses using a variety of technologies. The colleges are fully accredited and students can earn an A.A. degree at their own pace. Courses are taught by experienced Seattle College District faculty and the content and credit are equivalent to traditional, on-campus courses. While eLearning and Distance Education students have increased flexibility, most courses are not self-paced, so students will need to structure their personal schedules accordingly. Courses usually contain more reading and assignments to ensure that student learning will be as rigorous as similar on-campus classes. Students can work directly with an advisor who will recommend courses relevant to the student’s goals, and develop an individualized degree completion plan. State tuition applies in most courses and may be covered by financial aid. All three campuses have eLearning/Distance Education offices that students may visit in person.

Types of eLearning/Distance Education Courses
Online Courses
Online coursework is completed over the internet within a quarterly timeframe. Classes require internet access and an email address. Students are given reading assignments, lessons, and other activities to satisfy course objectives and required learning outcomes. Online study groups, student discussion forums, and interaction with the course instructor enhance the learning experience.

Fully online courses do not require campus visits. However, some online courses may require proctored exams. Submission and grading of student work takes place online. Most classes use some form of discussion forum for online discussion. Enrollment follows the quarterly college schedule.
Hybrid Courses

Hybrid courses provide students with the scheduling flexibility of fewer campus visits while covering the same materials as an equivalent class held entirely on campus. Hybrid classes usually have at least one on-campus meeting per week and they usually require some form of weekly participation in a “virtual classroom.” Online activities often include some combination of the following: participating in an online discussion forum, reviewing online content and lessons, assignments, quizzes, or test submissions, and/or interactive web-based activities. These courses often use on-campus exams as assessment tools. Enrollment usually follows the quarterly college schedule.

Video Courses

For students with broadband internet connections, the Seattle Colleges offer online classes that incorporate DVDs and video-on-demand. Professional telecourses and college-produced video materials are video streamed or DVDs may be rented from the eLearning department. Contact the individual campus eLearning/Distance Education offices for available options. Students interact, complete assignments, and find supplemental materials online through Canvas, our learning management system. On-campus meetings are generally not required for these courses. However, students may be required to take their exams on campus. Students who are not able to come to campus must find their own proctor to supervise the exams. Enrollment follows the quarterly college schedule.

Self-Paced Courses

Self-paced courses provide students the opportunity to start classes any time and complete them at their own pace within a six-month timeframe. Most course materials are available online through Canvas but do not require online interaction with other students. Consult with a counselor or advisor before enrolling. Self-paced courses do not follow the quarterly college schedule. They are not eligible for financial aid or loan deferment.

Technical Requirements

seattlecolleges.edu/elearning

See website for further details.

Minimum requirements for online, video, and hybrid and web-enhanced courses include:

- A computer newer than 5 years old with 1 GB of RAM and a 2 GHz processor with a minimum internet speed of 512 kbps. For mobile devices, iOS 5 and newer or Androids 2.3 and newer are specified.

- A reliable internet connection (DSL or cable modem connection recommended)

- Browser requirement: Latest versions of Firefox, Internet Explorer, Chrome, Safari, or Edge. Individual courses may require the latest free versions of common “plug-ins” such as: Adobe Acrobat, Java Runtime, QuickTime, Macromedia Flash, Microsoft PowerPoint Viewer, Microsoft Word Viewer, Microsoft Excel Viewer, or free OpenOffice.

Courses with audiostreaming or videostreaming will require sound and video cards and a broadband (DSL or cable modem) internet connection. Some courses may require access to DVD players.

The Canvas online learning management system is utilized by almost all online, hybrid, and web-enhanced courses.

Additional Fees

Online technology, licensing, DVD/video rental, and videostreaming fees may apply. Information about the fees can be found in the quarterly class schedule available online for each college.

Seattle Colleges Cable Television

(206) 934-3966 or (206) 395-5539
scctv.net and seattlecommunitymedia.org

The Seattle Colleges television station, SCCtv, offers high quality education and community programming. SCCtv broadcasts to Seattle residents on Comcast channel 28, Wave channel 19 and simulcasts to the world via its website. Emmy-award winning SCCtv creates unique original programming such as Professor Fred’s Movie Marvels, sharing these programs with college television stations across the country, including Spokane, Portland, San Antonio and Springfield, Massachusetts. Programming information is available on the website, scctv.net.

Self-funding, SCCtv’s video production team creates high quality video for clients and also operates Seattle Community Media, the city’s public access station seen throughout Seattle and King County on Comcast channel 77. Seattle Community Media provides a venue for many voices of our diverse community.
Mission Statement: The Seattle Colleges will educate our students to become well-prepared members of a global society. The Seattle Colleges provide global education opportunities to all students, faculty and staff. Our colleges welcome thousands of students from other countries to study in academic and technical programs as well as Intensive English programs. The Seattle Colleges also offer a wide variety of study abroad, internships and service learning opportunities for students to study and learn in other countries. Our faculty and staff enjoy exchanges and professional development abroad. The colleges are committed to fostering international awareness and understanding, and to encouraging the sharing of ideas and cultures.

For general information: http://seattlecolleges.edu/international

Each college offers programs for international students and for Study Abroad. Contact the International Programs office on each campus for details about what is offered:

Seattle Central College
International Education Programs
1701 Broadway, BE 1113
Seattle, WA 98122 USA
Telephone: (206) 934-3893
Fax: (206) 934-3868
Email: seattlecentral.intl@seattlecolleges.edu
www.seattlecentral.edu/international-education

North Seattle College
International Programs
9600 College Way North
Seattle, WA 98103 USA
Telephone: (206) 934-3672
Fax: (206) 934-3794
Email: international@seattlecolleges.edu
https://ip.northseattle.edu

South Seattle College
Center for International Education
6000 16th Ave. S.W.
Seattle, WA 98106 USA
Telephone: (206) 934-5360
Fax: (206) 934-5836
Email: ip@seattlecolleges.edu
www.southseattle.edu/international

Services and Programs
Each college has an International Program office with services including admission, college and cultural orientation, immigration and academic advising, social activities, trips, transcript evaluation for credit transfer, and housing referrals. See the International Program websites for more information.

Admission Guidelines
- Students should apply through the International Programs Office at the college of their choice, since admission procedures and registration schedules vary from college to college. Contact the individual college for specific information.
- Applicants must demonstrate adequate financial support to cover the period of study in order to meet visa requirements. International students pay the non-resident tuition rates.
- Applicants must be at least 16 years of age and have completed 10th grade at the time of enrollment.
- Application for admission by itself does not guarantee acceptance. Students must receive official notification of admission from the International Programs Office in order to enroll.

Note: International students should begin the application process well in advance of the quarter for which admission is desired in order to allow time for processing the application, to make passport and visa arrangements, and to prepare for departure.

Guidelines for Continuing Enrollment
Students must:
- Comply with Homeland Security requirements, including proper documentation, a valid passport, I-94 and I-20.
- Purchase the college insurance plan at the time of registration. This is required to prevent possible financial difficulties in the case of illness or accident.
International Programs

Types of Programs Available

Intensive English
Students enroll in general English courses at beginning, intermediate, and advanced levels.

College Bridge
Students develop academic skills to prepare for college/university level studies, and may enroll in one or more college level courses.

College Transfer
Students enroll in the two-year Associate of Arts (A.A.) or Associate of Science (A.S.) degree at the Seattle Colleges, which is equivalent to the first two years at a university. The associate degree transfers to hundreds of four-year colleges and universities around the USA. Students enjoy lower tuition and smaller class sizes than at most four-year colleges.

Professional Technical
Students can choose from more than 135 degree and certificate programs in professional and technical fields. Programs vary in length from one to seven quarters.

Bachelor of Applied Science (B.A.S.)
seattlecolleges.edu/bachelors
The Bachelor of Applied Science degrees (B.A.S.) build on associate degrees that provide workplace skills in specific career areas, such as Hospitality, IT or Business. When compared to traditional bachelor’s degrees, applied baccalaureate degrees incorporate more applied, hands-on learning focused on a particular industry. They are designed with strong internship components, and often offer credit for prior learning and workplace experience. Tuition rates are different for upper division courses; see the rate chart on page 19.

See page 18 for current bachelor’s degrees. See the individual college sections of this catalog for specific courses and sequences for each of these degrees.

More bachelor’s degrees are in planning stages. Visit the website for up-to-date information and new degrees: seattlecolleges.edu/bachelors/.

High School Completion Plus
Students can complete their high school diploma and earn their associate degree at the same time.

Summer Session
Students can choose from a range of college and English programs during the summer term.

Transfer Opportunities to Four-Year Schools
The Seattle Colleges have many transfer agreements with both in-state and out-of-state baccalaureate (four-year) colleges and universities for qualifying students, including international students.

See pages 11-12 or visit seattlecolleges.edu/international for the most current list, or see an academic advisor.

Programs for U.S. Students Studying and Volunteering Abroad
seattlecolleges.edu/international/studyabroad.aspx
The Seattle Colleges encourage students to study abroad as a way to enhance their educational experience. Interested students should visit the International Programs Study Abroad website to see a list of current programs and other resources on study abroad, service-learning and internships abroad. Information about financing study abroad is also available on this website.

All three colleges also have travel/study or cooperative education courses that students may be able to register for if their study abroad opportunity does not include college credit.
Worker Retraining Program

Each college has a Worker Retraining Coordinator who can be reached as follows:

**Seattle Central College**
(206) 934-3854
seattlecentral.edu/wrp

**North Seattle College**
(206) 934-3787
northseattle.edu/workforce-education/
worker-retraining

**South Seattle College**
(206) 934-5835
southseattle.edu/wrp

**Seattle Vocational Institute**
(206) 934-4936
svi.seattlecolleges.edu/workforce-education-programs/
worker-retraining/

**Districtwide**
seattlecolleges.edu/wrp

All four of the Seattle Colleges campuses offer Worker Retraining programs to provide retraining opportunities for unemployed and dislocated workers in the state of Washington. A “dislocated worker” is defined as an individual unlikely to return to employment in the individual’s principal occupation or previous industry because of diminishing demand for his or her skills, occupation, or industry.

**Eligibility**

Those who meet eligibility requirements may qualify for tuition and financial assistance through Workforce Training funds and other sources, and possibly for fees, books, bus pass, and/or childcare. Other campus services in career planning and job search skills are also available. A person may be eligible for Worker Retraining if he or she

- Is unemployed and is collecting Unemployment Insurance Benefits
- Has exhausted Unemployment Insurance Benefits within the last 48 months
- Has received a WARN letter
- Is a displaced homemaker who provided unpaid services in the home in the last 48 months while dependent on another family member’s income of which they are no longer supported by and is unemployed or under-employed
- Was self-employed in the last 48 months and now unemployed as a result of general economic conditions
- Is working in a not-in-demand job (along with other criteria)
- Has lost a job because of a disaster
- Has separated from the military within the last 48 months
- Is an active duty military who received a notice of separation

**START NEXT QUARTER:**
www.startnextquarter.org

The Seattle Colleges offer hundreds of students free and reduced tuition, books, and fees every quarter through Start Next Quarter. Interested students can see if they pre-qualify for Opportunity Grants, Worker Retraining, Basic Food Employment and Training, and WorkFirst funds by visiting this website. Students who pre-qualify for funding are invited to a Start Next Quarter workshop where their eligibility for funding is confirmed. Funding is limited and may be restricted to certain courses of study.

**Benefits**

- Priority Registration
- Tuition Assistance
- Career Planning Services
- High wage, high demand training programs
- Tutoring assistance
- Assistance with TAA and CAT/TB paperwork
- Liaison to other agencies, programs and funding

**Accreditation**

The Seattle Colleges are state-supported public institutions accredited by the Northwest Commission on Colleges and Universities*, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Each college is accredited individually; Seattle Vocational Institute is accredited jointly with Seattle Central. See complete accreditation details on page 2.

*NWCCU, 8060 165th Avenue NE, Suite 100, Redmond, WA 98052 Website: www.NWCCU.org (425) 558-4224
The Seattle College District operates on an open door admission policy (District Policy 305). Consistent with available space and resources, each campus admits those students who:

- Are competent to profit from the curriculum offerings of the District; and
- Would not, by their presence or conduct, create a disruptive atmosphere within the College District inconsistent with its purpose; and
- Are 18 years of age or older; or
- Are high school graduates; or
- Have applied for admission under the provisions and qualifications of student enrollment options programs such as Running Start or a successor program; or through other local student enrollment option programs. However, an applicant transferring from another institution of higher education who meets the above criteria, but who is not in good standing at the time of his or her transfer, may be conditionally admitted on a probationary status as determined by the chief administrative officer or his or her designee;

OR

- Are students age 16 and over who meet the provisions of Title III of the Workforce Investment Act who may then enroll in certain adult basic education classes. Individuals admitted into such classes will be allowed to continue as long as they are able to demonstrate, through measurable academic progress, an ability to benefit from the curriculum offerings.
- If not qualified under subsections above, has filed an appropriate written release from the public, private or home school he or she is attending or last attended, provided they are at least 16 years of age or older.

Admissions Exception

The college does not desire to replace or duplicate the functions of the local public schools; however, persons under the age of 18 may request special admission on a course-by-course basis, provided they have attained at least high school junior standing. Criteria for granting admission are: competency at an appropriate academic, artistic, and/or technical talent level and the ability to participate in an adult learning environment. Specific admissions procedures are available in the registrar’s office at each campus and at seattlecolleges/studentrules.aspx.

New Student Admission

To apply, students have three options:

1. Complete and submit an online admissions application. The online form is available at: seattlecolleges.edu/Prospective Students/Getting Started. Additional application information is also available at each of the college websites:
   - Central: seattlecentral.edu/getstarted
   - North: northseattle.edu/admissions/steps
   - South: southseattle.edu/enrolling
   - SVI: http://svi.seattlecolleges.edu/how-to-apply/

   OR

2. Download a printed application, complete it and mail it to your selected campus. Addresses are on the inside of this catalog cover.

   OR

3. Complete a paper or web online admission application in person at the college.

For those intending to transfer in credits from another college or university for evaluation, submit official copies of transcripts from any community colleges, universities, or technical schools attended.

NOTE: For some programs, high school transcripts may be required. Check with your campus for more information.

Enrolling at More than One Seattle College

Intra-District Registration/Concurrent Enrollment

Students may enroll at more than one of the Seattle Colleges without paying more than the maximum tuition at any one college; however, additional class or college fees may be incurred. When applying online, submit separate applications for each college.

NOTE: Financial aid recipients may receive aid through only one college. See the Financial Aid office at your home college four weeks prior to the beginning of the quarter if you plan to enroll in more than one college in the district.
Readmission of Former Students

Students who were not enrolled for the most recent quarter, but who were previously enrolled at the Seattle Colleges, may enroll during open registration. Students should update their address information when registering.

Students who were dismissed for disciplinary reasons must see the Vice President for Student Services, or for academic reasons, the Dean of Enrollment Services (the Director of Student Services at SVI for both disciplinary and academic reasons).

Students who stop out for a quarter or more and are interested in graduating may choose to fulfill requirements in effect from an earlier catalog, provided:

1. the Vice President for Instruction (Executive Dean of Instruction and Community Partnerships at SVI) agrees to the earlier requirements; OR
2. not more than five years have elapsed since the student first enrolled under the earlier catalog; AND
3. courses required for completion are still offered.

Students are advised that if they graduate under an earlier catalog some current transfer requirements of four-year institutions may not be satisfied.

Residency Requirements

Residents — U.S. Citizens, Residents — U.S. Citizens, U.S. Permanent Residents, Deferred Action for Childhood Arrival (DACA) or Qualifying Visas

To qualify for resident tuition applicants must reside in Washington State for reasons other than educational purposes for one full year prior to the first day of the quarter in which resident fees are requested. A financially dependent student may also be eligible for resident tuition if either parent or legally appointed guardian(s) have maintained a domicile in Washington for one full year prior to the first day of the quarter. Establishing permanent state residency includes compliance with Washington state laws, vehicle and driver license registration and registration to vote in this state, if applicable. U.S. permanent resident card holders and DACA recipients must hold their status for one full year prior to the start of the quarter in which resident fees are requested. Visa holders should contact the Registration Office for additional information at their respective campus. Applicants may qualify for in-state tuition rates without establishing residency if they:

a. hold a graduate service appointment, designated as such by an institution, and involving not less than twenty hours per week.

b. reside in the state of Washington and are an employee, spouse, or the dependent child of an employee, not less than half-time with a state institution.

c. are on active military duty and stationed in Washington or a member of the Washington National Guard.

d. are an immigrant refugee/asylee/parolee or the spouse or dependent child of an immigrant refugee/asylee/parolee.

e. are a dependent of a Congressional member representing the state of Washington.

f. are a veteran who has separated from the uniformed services with any period of honorable service after at least 90 days of active duty service, is eligible for federal veterans education assistance benefits and who enters an institution of higher education in Washington within three years of separation.

g. are a spouse, former spouse, or child entitled to veterans administration education assistance benefits based on their relationship to a veteran as defined in (f).

Contact the Registration Office at your campus for information on additional legal requirements to qualify for these exemptions.

Non-Resident Tuition Waiver

Those who do not meet the residency requirements or eligibility for exemption may be eligible for the Non-Resident Tuition Waiver, adopted January 1, 2016 by the Seattle Colleges District. Students must be U.S. citizens or permanent residents and are charged a tuition rate very close to resident tuition. There is no one year wait requirement. However, once students have met the one year domicile requirement and are in compliance with Washington State laws to establish permanent state residency, they may submit a Residence Questionnaire with supporting documentation for review for reclassification to resident for tuition paying purposes. Students who do not meet resident requirements or are not eligible for the Non-Resident Tuition Waiver are assessed tuition and fees based on “non-residency” status.

Residents — Non-U.S. Citizens

Effective July 1, 2003, Washington state law changed the definition of “resident student” so that certain students who are not permanent residents or citizens of the United States are eligible for resident student status—and eligible to pay resident tuition rates—when they attend public colleges and universities in this state. To qualify for resident status, students must complete an affidavit/declaration/certification if they are not permanent residents or citizens of the United States, but have met the following conditions:

1. Completed the full senior year of high school and obtained a high school diploma at a Washington public or private high school or received the equivalent of a diploma;

2. Lived in Washington for at least three calendar years (36 months) immediately prior to receiving the diploma or its equivalent;
3. Continuously lived in the state of Washington after receiving the diploma or its equivalent and until such time as the student is admitted to an institution of higher education.

Students who meet the above conditions must also certify that they will be filing an application to become a permanent resident of the United States as soon as they are eligible to apply. Students must also certify that they are willing to engage in activities designed to prepare them for citizenship, including citizenship and civics review courses. Contact the Registration Office at your campus for more information.

Registration Office Contact Information

Central (206) 934-4397  seattlecentral.edu
South (206) 934-7938  southseattle.edu
North (206) 934-3663  northseattle.edu
SVI (206) 934-4950  sviweb.sccd.ctc.edu

International Student Admission

See pages 27-28 for information on International Student Admission and Guidelines.

College Expenses

Student expenses include estimates of all school and basic college living expenses for the academic year (Fall, Winter, and Spring Quarters). Information on student budgets is available in the Consumer Information brochure available in the Financial Aid office at each campus and on the financial aid websites listed above.

Determination of Financial Aid

Using information provided on financial aid forms, a determination is made of the amount a student is expected to contribute toward his or her expenses for the academic year. The amount a student can pay is subtracted from the cost of attendance to determine the amount of need.

To be eligible for financial aid, a student must:

- Be a citizen, naturalized citizen, refugee, or immigrant to the United States*
- Have a high school diploma or a GED certificate
- Demonstrate financial need as determined by the free application for federal student aid (FAFSA)
- Enroll in an approved certificate or degree program and take required coursework
- Be registered with the Selective Service, if required
- Not owe a refund or repayment on prior financial aid received, or have a student loan in default at these or prior colleges attended
- Make satisfactory academic progress as defined by each campus

* If you are a Dreamer student, your undocumented status makes you ineligible to apply for federal financial aid. However, the Washington Student Achievement Council has provided a new state application for you. This free application—known as the Washington Application for State Financial Aid, or the WASFA and requirements for eligibility can be found at: www.readysetgrad.org/wasfa.

Maintaining Eligibility

Students are required to make satisfactory academic progress in their chosen course of study. Students are advised to check with the campus Financial Aid Office or Financial Aid website at your college for requirements.

Types of Financial Aid/Opportunity Pathways

Three basic kinds of financial aid are available for students. Financial aid may consist of one or more of:

1. Grants, Scholarships, & Waivers: Students do not repay grants, scholarships and waivers if satisfactory academic progress is maintained. Grants include Pell...

2. **Employment:** Work-study programs provide part-time employment.

3. **Loans:** Contact the campus Financial Aid Office for information about participation in loan programs.

Many different scholarships are offered. Amounts, eligibility criteria, and deadlines vary. Check with the Financial Aid Office for information and application forms.

**Opportunity Grants**

Eligible students pursuing approved pathways* may receive funding to cover tuition and mandatory fees up to 45 credits (990 clock hours) and up to $1000 per academic year for tools, texts, and supplies.

*See “opportunity grants” on college websites for a list of approved programs. For additional grant information, visit www.sbctc.ctc.edu/s_opportunitygrants.aspx

**Grant Eligibility**

- Washington state resident
- Enrolled in an eligible program of study
- Family income at or below the 200% federal poverty level
- Financial need based on FAFSA or WAFSA
- No previous degree or certificate (preferred, but not required)

**Opportunity Grant Coordinators:**

Central
(206) 934-6937
seattlecentral.edu/finaid/opportunity_grant.php

North
(206) 934-3787
northseattle.edu/workforce-education/opportunity-grant

South
(206) 934-5200
southseattle.edu/resources/opportunitygrant.htm

SVI
(206) 934-3192
svi.seattlecolleges.edu/workforce-education-programs/opportunity-grant/

**Start Next Quarter**

startnextquarter.org

The Seattle Colleges offer hundreds of students free and reduced tuition, books, and fees every quarter through Start Next Quarter (SNQ). Interested students can see if they pre-qualify for Opportunity Grants, Worker Retraining, Basic Food Employment and Training, and WorkFirst funds by visiting this website. Students who pre-qualify for funding are invited to a Start Next Quarter workshop where their eligibility for funding is confirmed. Funding is limited and may be restricted to certain courses of study. Potential SVI students can also use SNQ.

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**SVI Financial Aid and Assistance**

(206) 934-4977

Federal and state financial assistance is available for students attending SVI. Depending on eligibility, assistance consists of work-study and grants, including Pell Grants, State Need Grants, and Supplemental Educational Opportunity Grants (SEOG). SVI also participates in Worker Retraining, WorkFirst funding, the Opportunity Grant Program, Basic Food and Employment Training (BFET), College Bound Scholarship and Passport Scholarship Programs.

Financial aid application instructions and funding options information is available on the website, from the financial aid office and presented during the New Student Orientation. Early application is encouraged. Late applicants may have their entry into school delayed.

In order to maintain financial aid eligibility, students must maintain satisfactory academic progress.

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**Financial Assistance for Veterans**

**Veterans Affairs Offices**

Central & SVI  (206) 934-4147
North  (206) 934-7309
South  (206) 934-5811

The Veterans Affairs Offices provide services to help veterans and eligible dependents receive and maintain VA educational benefits while in school. Benefits handled by college staff include the Montgomery G.I. Bill®, Post 9/11 G.I. Bill®, Veterans Education Assistance Program/VEAP Reserve Education Assistance Program, Benefits Program for Dependents and Surviving Spouses, Selective Reserve Assistance Program, Vocational Rehabilitation Program and others. The office maintains attendance records and monitors academic progress, assists in applying for tutorial and work-study benefits (for some veterans), and approves eligibility for tuition discounts for eligible veterans, their spouses and/or their dependents.

To receive benefits, students must contact the Veterans Affairs campus office prior to the beginning of the academic quarter. If students are transferring from another school or are applying through the Veterans Administration, they must also contact the office to ensure all application requirements have been met. All veterans must apply for a credentials evaluation as soon as possible and notify the office immediately of any changes in address, program, dependents, enrollment, etc.

It is important that students be aware of all requirements outlined by the college and the Department of Veterans Affairs to fulfill educational objectives. Veterans and eligible dependents receiving benefits are required to maintain specific academic standards in order to retain benefits. Some classes or courses of study are not applicable for benefits.
Veterans Waivers
Subject to limitations, Veterans or National Guard members, and their children and spouses, may be eligible for tuition waivers. For more information about eligibility, contact the Veterans Affairs Office at each campus.

The Application Process

How to Apply for Financial Aid
Apply at www.fafsa.ed.gov. Be certain to complete the application according to instructions.

When to Apply
All application documents must be accurately completed and delivered to the Financial Aid Office by the published deadline date. For exact dates see the “Deadline” section of the Consumer Information brochure available at each campus. It is recommended that the student begin this process as soon as possible.

Students need to apply only once each school year, but they must reapply every year of attendance. Applications are processed in the order received. Late applicants must plan to pay for their own tuition by the tuition deadline and purchase their own books so that they are ready to begin class on the first day of school. Aid will be disbursed later in the quarter to eligible, late-aid applicants.

Notification
Students are emailed or mailed a financial aid notification letter indicating award types and amount per quarter. It is important to read the notice carefully, following all instructions. Students are also notified if they are ineligible for financial aid.

Disbursement of Funds
Financial aid is first applied to tuition and fees charged at the time of registration. Any remaining balance is issued to the student. A student has three options for receiving this disbursement (also called a refund):
- having funds deposited to a new account which can be accessed with a Seattle Colleges debit card;
- having funds deposited directly into the student’s current bank account;
- having a paper check mailed.

Work-study awards are paid through a payroll check twice a month as the money is earned. Campus financial aid offices provide detailed instructions for both disbursements (refunds) and work-study payments.

Students receiving support from outside agencies should make certain the agency has sent its authorization to the Financial Aid Office at least a week before the tuition payment deadline.

Withdrawal Penalties
If a student withdraws from school or drops more than the required credits to maintain aid, financial aid stops. Tuition refunds are not returned to the student but credited to the appropriate financial aid account. In the case of official withdrawal, students may be required to repay a percentage of their cash disbursement and/or tuition and fees. If a student drops out without notifying the school, he/she may be billed for the entire amount. Repayment is required before receiving consideration for any further aid, to register for future quarters, or to have transcripts released to another institution. Students should contact the campus Financial Aid Office for details.

Financial Aid Information Changes
Information in this publication regarding financial aid is subject to change without notice and does not constitute an agreement between the colleges and the students.

Placement for Classes
New students are required to take a placement test to evaluate reading, writing, and math skills and to determine the appropriate math and English course placements. Possible exemptions to taking the test are recent proof of college-level English and math with a grade of 2.0 or better, other recent placement test scores submitted via the Placement Reciprocity form, and other options.

Contact the Testing and Assessment Office, at your campus or college website for a complete list of exemptions, current tests, fees, guidelines and additional information.

North Testing Center
(206) 934-3674
northseattle.edu/testing

Central Testing Office
(206) 934-6344
seattlecentral.edu/testing

South Student Assessment Services
(206) 934-6767
southseattle.edu/resources/sas/

Testing at SVI
SVI students take the CASAS Test. There is no fee for this test. Students prepare for the test by attending the Educational Planning Course described on page 214. SVI students for whom English is a second language take an ESL placement test.

SVI Admissions
(206) 934-4980
svi.seattlecolleges.edu/how-to-apply/admissions-intake-process/
Start: New Student Orientation

Participation in the orientation is mandatory for new students entering the Seattle Colleges. New Student Orientation provides an overview of programs and services, and the opportunity to meet with an advisor and register for courses online.

Advising

The Seattle Colleges provide educational advising to new and enrolled students (District Policy 315). Advising is available to help plan a course of study and select the appropriate classes. Advisors provide information on Professional Technical programs and academic transfer programs as well as admission requirements for four-year institutions. Advising centers maintain a broad collection of resources from colleges, universities, and vocational schools.

For more information, email or call

Central: AdvisorCentral@seattlecolleges.edu
(206) 934-4068

North: AdvisorNorth@seattlecolleges.edu
(206) 934-3658

South: AdvisorSouth@seattlecolleges.edu
(206) 934-5387

SVI: Admissions
(206) 934-4945

Registration

The Seattle Colleges require official enrollment before a student may enter any class. Official enrollment is the process of registering for classes and payment of tuition and fees.

Students may register for classes by using campus online services (see below) or completing an enrollment form, and then paying tuition.

The Seattle Colleges operate on a quarter system. The quarterly course schedules are published approximately six weeks before the start of a quarter and are available online or can be downloaded and printed. Registration information is provided to all new and currently enrolled students. Current students receive priority in registering.

Check the academic calendar on the back inside cover of this catalog or at seattlecolleges.edu/district/calendar/academiccalendar.aspx.

Online Services

Online registration via the college websites is available for students seven days a week from 5 a.m. to 11 p.m. Students can use online services to register/add/drop classes, get quarterly grades, look up registration appointments, check financial status, change their PIN, or pay for classes by credit card or deferred payment plan. For more registration information, visit the campus website or contact the campus Registration Office.

Registration websites can also be reached by selecting a college at seattlecollege.edu/register.

SVI: SVI does not have online services at this time. Please see SVI for enrollment through the Educational Planning Course.

EMAIL: Email is the primary mode of communication with students at the three campuses. These emails may include information about admissions, deadline dates, registration, waitlist status updates, dropping for non-payment, residency, transfer credit evaluation and graduation. Students should keep their email addresses current with their college.

Attendance Policy

Students may not attend any class unless they have officially registered and paid tuition and fees. (Exception: students who are enrolling using a space-available waiver.) Instructors may not allow a student to attend their class if the student’s name is not on the class roster. Students who are officially enrolled in credit classes must be in attendance or communicate with the instructor no later than the first scheduled class. Students who are absent without prior approval of the instructor or the division/department chair may be withdrawn by the college.

NOTE: Students should not assume that they have been dropped if they have not attended class on the first day; instead, they should officially drop or withdraw. See “Dropping Classes.”

Adding Classes

After initial registration, students may add classes through the end of the 10th day of the quarter (through the 8th day in Summer Quarter). Instructor permission may be required. Students may add classes online during designated time periods, or may complete an Enrollment form in person at the Registration Office.

NOTE: In rare cases, students may petition for a late registration based on documentation demonstrating extenuating circumstances which may have led to their being dropped. Late registration petitions will only be considered for those students who attended classes prior to the 10th day of the quarter (8th day for summer). A per credit late fee will be assessed.
Dropping/Withdrawing Classes

To drop a course, students must complete the official withdrawal procedure, as listed in the campus quarterly schedule:

1. During the first two weeks of the quarter, or by the 8th day of Summer Quarter, students may withdraw from a class and no record of the course will appear on the transcript.

2. From the 3rd week through the 8th week of the quarter (9th day through 6th week in Summer Quarter for regular summer courses; by the 4th day of the quarter for 4 week summer courses), students may withdraw and a “W” will be recorded and will remain on the student’s transcript. After a “W” is issued, the course may be repeated only one more time.

3. After the 8th week (6th week for Summer Quarter) students may not officially withdraw from a class regardless of academic status.

NOTE: Students cannot officially drop a class by simply informing the instructor of the withdrawal or by ceasing to attend class. Students must complete the Add/Drop process either through online services at the Registration Office, before the course withdrawal is considered official. Students should check the quarterly schedule for online service availability. Instructors have the option of issuing a failing grade to students who do not go through the official withdrawal process.

Current Contact Information

Students must maintain a current email address, telephone number and mailing address with the college to receive correspondence regarding registration status, financial aid, grades and other information. Updates may be made via web online student services at each of the college websites or at the Registration Office.

Pay and Prepare

Students are not officially registered for a specific quarter until tuition and fees have been paid in full to the college or contracted for full payment with a deferred payment plan for monthly tuition payment (see below). Payments must be received prior to the posted tuition deadline. Payments can be made online through the college website, through the mail or in person at the Cashier’s Office. VISA, Master Card, American Express and Discover credit cards may be used for online payment of tuition and fees (except at SVI). These credit cards, debit cards and checks in the exact amount of the tuition and fees are also accepted for payment at the cashier’s window. Cashiers are located near the Registration Offices at each of the campuses.

Seattle Central College (206) 934-4108
North Seattle College (206) 934-3627
South Seattle College (206) 934-5388
Seattle Vocational Institute (206) 934-4947

Optional Payment Plan for Tuition

Each of the Seattle Colleges offers a deferred payment service through a third-party sponsor. Enrollment in this program enables students to make automated monthly tuition payments from a bank account, debit card or credit card. Students must have a tuition/fee balance of $100 or more to be eligible for this option. Students taking Continuing Education classes and International students are not eligible for this option. For further information:

Central: seattlecentral.edu/registration/tuition.php
North: northseattle.edu/tuition-fees/deferred-tuition-payment-system
South: southseattle.edu/services/facts.htm

Tuition

Tuition at community and technical colleges in Washington State is charged by credits, rather than by part-time or full-time status. International students are required to carry a credit load of 12 or more to maintain their status. In addition to credit load, tuition is also determined by residency (see Residency Requirements). Students in Professional Technical programs that require more than 18 credits per quarter (e.g. Culinary Arts) pay a reduced rate for those credits. Tuition for Bachelor’s degrees (B.A.S.) and Apprentice Programs are calculated at different rates.

Tuition and fees are set by the Washington State Legislature and are subject to change. For current amounts, go to your campus website.
eLearning /Distance Education
For current eLearning /Distance Education tuition and fees, see seattlecolleges.edu/district/programs/elearning.aspx.

Tuition Changes
Tuition is subject to change by the Washington State Legislature and approval by the State Board for Community and Technical Colleges. The Seattle College District reserves the right to change any of its fees or charges without notice.

Non-payment of Tuition and Fees
Costs and expenses that result from collecting unpaid tuition and fees will be added to the total owed to the colleges, according to state laws RCW 28B.10.293 and RCW 19.16.500.

Student Fees
Student fees vary each year and are approved by the State Legislature or the Seattle Colleges Board of Trustees.

Students pay a variety of fees each quarter. Typical fees might include:

- Technology Fee ($3 per credit with a maximum) for access to email and the latest technologies
- Class/Lab Fee for some classes for equipment or materials
- Transportation Fee which allows reduced fee ORCA passes or ferry reimbursement
- Student Activity Fee
- Other Fees

Non-credit & Community Service Program Fees
Refer to the website at each campus for fees associated with non-credit and community education programs.

Other Fees
Refer to campus websites for other fees, like GED fee, transcript fee, testing or placement fees, work experience evaluation fees, or proctor fees.

Student Injury & Sickness Insurance Plan
Student injury and sickness insurance is available to students registered for six or more credits. Provided by Summit America Insurance Services, L.C., the policy provides broad coverage at a comparatively inexpensive rate. Student insurance must be purchased during the first two weeks of each quarter. For more information, see www.summitamerica-ins.com.

Refunds

General Refunds
Refundable tuition and fees will be refunded if complete or partial withdrawal from classes is accomplished within the first twenty (20) calendar days of the regular college quarter starting date (District Procedure 605.30.1). Fees and tuition refunds are returned automatically once students have officially dropped online or in person with the refund schedule below:

<table>
<thead>
<tr>
<th>Withdrawal</th>
<th>Refund Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resulting from classes canceled by college .</td>
<td>100%</td>
</tr>
<tr>
<td>During the first five (5) instructional days</td>
<td></td>
</tr>
<tr>
<td>of the college quarter*</td>
<td>100%</td>
</tr>
<tr>
<td>From the sixth (6) instructional day through the twentieth (20) calendar day of the college quarter*</td>
<td>50%</td>
</tr>
<tr>
<td>No refunds after the first twenty (20) calendar days of the college quarter</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Subject to administrative fee of $6.00.

There is no charge for dropping classes if no refund is involved. Allow at least two weeks from the time of payment for refund processing.
Financial Aid Refunds
Refunds to financial aid recipients will be refunded to the appropriate financial aid account as required by federal and state regulations, including those students who are dismissed for disciplinary reasons. Students may be required to return financial aid funds to the college if federal or state regulations require the college to do so.

International Refunds
International students who attend one of the Seattle Colleges on a visa and make advance payments must have enrolled at the college in the quarter for which they are requesting a refund and must provide documentation establishing extenuating circumstances, such as visa denial or medical reasons.

Intensive English Language Program Refunds
Withdrawal prior to 1st class ...................... 100%
During the first 5 calendar days ..................... 80%
From the 6th through the 14th calendar days .......... 50%
No refund after the 14th calendar day ............... 0%

Continuing Education Programs and Community Education Classes
North Seattle College and South Seattle College Refund Policy:
Before 48 hours prior to first day of class* .......... 100%
*Subject to administrative fee.
No refunds for cancellations within 48 hours
of start of class or after class begins .......... 0%
Seattle Central College: ......................... varies
Due to the wide array of programs offered by Seattle Central’s Continuing and Professional Education, refund policies are tailored to specific programs and courses. For specific refund information, call (206) 934-5476.

Other Refunds
Disciplinary Reasons: No refund will be given to a student who is dismissed from the District for disciplinary reasons. (Policy 605.30.4)
Failure to follow procedures: No refund will be given to a student who fails to follow official withdrawal procedures. (Policy 605.30.4)
Summer quarter, short or irregular courses: Shorter courses, programs and summer quarter will also be refunded, but on appropriately shortened time frames.
Lab Fees: Lab fees are based on consumption of supplies and materials. Those which are refundable will be refunded on the same schedule as tuition. (Policy 605.30.6)
Parking Fees: Parking fees will be refunded only in the case of 100% withdrawal from the college, in which case the fees will be refunded on the same schedule as tuition. (Policy 605.30.7)

Tuition Waivers
Waivers can be grouped in three main categories; those required by law, those required by the State Board and those that colleges are allowed, but not required to offer (optional waivers). The Seattle College District offers both required and optional waivers. Waivers may not be combined. Those used by the Seattle Colleges include:
- Washington State Employee Space Available Waiver
- Senior Citizen-Audit/Credit Waiver
- Wrongfully Convicted Person Waiver
- Children and Spouses of Totally Disabled or POW/MIA or Deceased Eligible Veterans or National Guard Members
- Children and Spouses of Deceased or Disabled Law Enforcement Officers or Firefighters

For more information on waivers, visit www.sbctc.edu/colleges-staff/programs-services/tuition-fees/tuition-waivers/ and your campus website.

Waivers for Veterans
Contact the Veterans Affairs Office at each campus.
Grades & Transcripts

Student Progress
Students are expected to make satisfactory academic progress while enrolled at the Seattle Colleges. Academic progress is defined in terms of a student’s grade point average (GPA) and how much time a student takes to complete a degree or certificate program. Time is a function of credits (or clock hours) attempted and earned. (District Policy 311)

Minimum GPA: A grade point average of 2.0 is required.

Credits Earned/Credits Attempted: Students enrolled in degree or certificate programs must, on a quarterly basis, successfully complete at least 75 percent of the credits or clock hours attempted when they reach a minimum of 30 attempted credits or clock hours.

Degree/Certificate Completion: Students who are enrolled in degree or certificate programs must complete their programs in at least 125 percent of the credit program requirements. Students who do not meet the above requirements may be subject to corrective actions.

Copies of these rules and procedures are available online at each college website:
- seattlecentral.edu/registration/stu_prog_policy.pdf
- northseattle.edu/policies/progress-and-grades
- southseattle.edu/campus/progress.htm
- svi.seattlecolleges.edu/about-us-svi/school-policies

Graduation Requirements
To earn a degree within the Seattle College District, a student must complete at least 90 credits and have a minimum cumulative grade point average of 2.0. At least 15 credits must be earned at the Seattle College granting the degree.

Graduation Process
Students nearing graduation must review graduation requirements with an advisor, faculty coordinator or division counselor (depending on each campus). After it is determined that the student will complete the coursework required, it is the student’s responsibility to apply for the award. Applications are available online, in the Registration Office, Advising Office and division offices. Upon approval, the award will be issued. (Students must refer to their program of study for requirements for specific certificates and degrees.) Students apply to graduate during the quarter prior to the one in which the award requirements will be completed.

Transfer-In Credits and Graduation: Students must apply to have their transfer credits evaluated no later than one quarter prior to applying for graduation.

NOTE: With approval of the dean, students may elect to graduate either under the catalog in effect at the time they complete the graduation requirements or under the provisions of an earlier official catalog, provided that (a) not more than five years have elapsed since the student first enrolled under that earlier catalog and (b) the courses required for completion are still offered. The dean may make suitable substitutions in cases where courses are no longer offered. Students are advised that if they graduate under an earlier catalog some current transfer requirements of four-year institutions may not be satisfied. Students are advised to contact the transfer institution for current requirements.

Academic Recognition
Students are recognized for outstanding academic achievements through the Dean’s List or President’s List awards at the college they are currently attending. These awards are posted to the student’s official academic transcript.

Dean’s List: Students must have 10 or more credits per quarter at the college they are currently attending and a 3.5 quarterly GPA.

President’s List: Students must have accumulated 30 or more credits at the college they are currently attending and have a 3.8 or higher cumulative GPA.

Phi Theta Kappa Academic Honor Society
Phi Theta Kappa International Academic Honor Society recognizes outstanding students who have achieved academic excellence at two-year public and private colleges. It offers students the chance to serve their campus and community while developing leadership skills. In addition, Phi Theta Kappa members have access to scholarship opportunities not available to non-members. Each of the Seattle Colleges has a Phi Theta Kappa chapter and offers membership to students whose academic work meets the organization’s standards. These awards are posted to the student’s official academic transcript.

Grades and Credits

Standard Grading System
Seattle Colleges uses numerical grades which may be considered equivalent to letter grades as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>4.0–3.9</th>
<th>3.1–2.9</th>
<th>2.1–1.9</th>
<th>1.1–1.0</th>
<th>0.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A-</td>
<td>B</td>
<td>B-</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>3.8–3.5</td>
<td>2.8–2.5</td>
<td>1.8–1.5</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>A+</td>
<td>3.4–3.2</td>
<td>C+</td>
<td>C+</td>
<td>D</td>
<td>D+</td>
</tr>
<tr>
<td></td>
<td>2.4–2.2</td>
<td></td>
<td>1.4–1.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Many programs and individual course sequences require a minimum of a 2.0 grade in order to continue with additional courses or studies. Be sure to know the specific requirements for your courses, program or college-transfer major. Consult with your advisor or counselor. Grade-point average (GPA) is determined by dividing total points earned by total credit hours attempted.
Non-traditional Grading Options
The following letter grade options are not universally accepted by other institutions and could jeopardize the transferability of courses and financial aid status. See your advisor.

I—Incomplete Indicates that the student performed at a passing level, completed most of the course requirements, and intends to make up the missing work. An Incomplete is given only at the discretion of the instructor when the student has attended regularly, done satisfactory work, and furnished satisfactory proof to the instructor that the work cannot be completed because of illness or other circumstances beyond the student’s control. An Incomplete grade must be requested prior to the final examination. Coursework must be completed during the following quarter, excluding Summer Quarter. If the student fails to remove the “I” by completing the coursework in the specified time period, the “I” will remain on the transcript. The instructor must file a written statement of reasons for giving the Incomplete, listing a description of the work which the student will need to do to remove it, with the dean of the division in which the course is offered. If the student elects to repeat a course rather than make up the work, the “I” will remain on the transcript. The grade earned will compute in the GPA; after receiving an “I” in a course, a student may repeat that course only once.

S—Satisfactory With Credit Used for individual progress, clinical, and skill development courses. This symbol is not used for college transfer courses numbered 100 and above, except designated pass/fail courses as approved by the Office of Instruction.

N—Audit To audit a course means to register for and attend class without receiving a grade or credit. An “N” grade, rather than credit, is recorded on the transcript. Students must officially register to audit a course. Registration for an “N” may be made until the end of the 2nd week of the quarter without the instructor’s signature or the end of the 8th week (6th week of Summer Quarter) with the instructor’s approval and signature. Students are responsible for consulting with the instructor regarding class requirements. After an “N” is issued, the course may be repeated no more than one (1) more time. If the instructor’s requirements for an “N” are not satisfied by the student during the course, the instructor may issue an “NC” (No Credit) symbol.

Students changing their status from audit to credit or credit to audit must make official changes within specific deadlines.

NC—No Credit Indicates that the student did not fulfill the requirements for receiving an “S” grade, an “N” grade or a numerical grade in the course. A student in good standing may request an “NC” symbol from the instructor prior to the final examination, granted at the instructor’s discretion. After an “NC” is issued, the course may be repeated no more than one (1) more time. An “NC” does not affect a student’s GPA.

W—Official Withdrawal This grade will be recorded and will remain on the student’s transcript. After a “W” is issued, the course may be repeated no more than one (1) more time. (See “Adding or Dropping Classes” page 36).

Y—Ongoing Course Used for a course that is two or more quarters in length. The final grade for the course will be reported at the last quarter.

Repeating a Course
There are two situations in which a student may repeat a course. Both the initial course and repeated course must be taken at the same campus.

1. GPA Improvement. A credit course may be taken no more than two times total. Upon successful completion of a repeated course, the student can submit a formal request to the Registration Office to have the higher of the two decimal grades used in the GPA computation. Unless specifically requested, the first grade and the repeat grade will be averaged.

   NOTE: The student will be credited only once for the class. It is the student’s responsibility to notify the Registration Office when the repeated course is completed.

2. Multi-quarter continuous training courses use the same course number from quarter to quarter. In this situation credits earned are cumulative, and all grades are used to determine the GPA.

   NOTE: Students planning to transfer to four-year institutions should be aware that many four-year institutions have strict policies on course repeats. Students should check with the Advising Office before repeating a class to determine potential course transfer difficulties.

Grade Errors or Changes
Report grade errors or grade changes immediately to the Registration Office. Grade errors or changes must be reported no later than the last day of the quarter which follows the quarter in which the grade was received, except a Spring Quarter grade may be reported through the last day of the following Fall Quarter. Students are encouraged to consult with their instructors before initiating a grade review process as outlined in the complaint procedure available through the office of the Vice President for Student Services at each college.

After a course grade has been assigned, supplemental or additional class work will not be accepted for the purpose of changing that grade except in the case of an “I” (incomplete) grade.

   NOTE: Students must complete the coursework as directed by the instructor during the following quarter (excluding Summer Quarter).

Transferring Credits from Other Colleges
For students pursuing a degree or certificate, an evaluation of incoming credits request may be submitted after transcripts from other institutions are received. Students will be sent a copy of their evaluated coursework.
Student Rules

Responsibilities & Right to Know

Records

Confidentiality of Records (FERPA)
The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. & 1232g; 34 CFR Part 99)* is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. Information about Seattle Colleges’ students is collected, maintained, and used to meet the college’s educational objectives. Students are protected against improper disclosure of their records. These rights begin the first day of class and extend to all former students.


Student Rights and Educational Records
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student’s education records within 45 days of the day the College receives a request for access. A student should submit a written request that identifies the record(s) the student wishes to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected.

If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the College to amend a record should write the college official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the College decides not to amend the record, as requested, the College will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of a right to a hearing.

3. The right to provide written consent before the College discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure with our consent.

Transcripts

Official, sealed transcripts (a copy of a student’s permanent academic record) are required by other institutions when students transfer. Official transcripts must be requested in writing from the Registration Office of the college where the classes were taken or online (www.studentclearinghouse.org/secure_area/transcript/to_bridge.asp). Allow two working days for processing.

The current transcript fee is $7.50 (for 2016-2017—subject to change). College websites have current fees. In compliance with the Family Educational Rights and Privacy Act of 1974, grade transcripts will be released only upon written request.

Students can get an unofficial transcript at no cost, via Student Online Services at the college website. Transcripts will not be released if students have not fulfilled all financial obligations to the college. Testing Centers no longer have GED® records. Test scores must be requested from the GED® Testing Service directly. (www.gedtestingservice.com/testers/gedrequest-a-transcript)
College discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted or is assigned to provide a service instead of using College employees or officials (such as an attorney, auditor, collection agent, or a clinical, intern, or extern site); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.

In addition, upon request, the college discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office administering FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave. SW, Washington, DC 20202-5901.

Disclosure of Student Directory Information

The College may disclose the following directory information unless a student affirmatively submits a written notice to the Registrar’s Office requesting his/her directory information not be released. Directory information includes:

- Student’s name
- The act of enrollment in the college
- Date(s) of enrollment
- Division or area of study
- Awards granted to the student by the college
- Participation in officially recognized activities in sports
- Weight and height of athletic team members
- Email address

Exceptions

For more information on exceptions to the requirement, see Policies and Procedures 380. Student Records at seattlecolleges.edu/district/currentstudents/studentrulescs.aspx.

Additional Information

For more information regarding student rights, students should contact the Registration Office on each campus.

Student Identification Numbers

Student identification numbers are used in college transactions. Students are assigned individual student identification numbers (SID numbers) for use in college transactions such as web-based services and other student services. To comply with federal laws, the colleges are required to ask for the student’s Social Security Number (SSN) or Individual Taxpayer Identification Number (ITIN). Colleges use the SSN/ITIN to report American Opportunity Tax Credit or Lifetime Learning tax credit, to administer state-federal financial aid, to verify enrollment, degree and academic transcript records, and to conduct institutional research. Pursuant to state law (RCW 28B.10.042) and federal law (Family Rights and Privacy Act), the college will protect the student’s SSN from unauthorized use and/or disclosure. If a student does not submit a SSN/ITIN, the student will not be denied access to the college; however, the student may be subject to civil penalties (refer to Internal Revenue Service Treasury Regulation 1.6050S-1(e)(4) for more information).

Behavior, Environment & Physical Safety

Campus Security Offices

Students should use the same caution as they would in any public place in taking care of their personal safety and personal belongings. Campus safety/security offices provide helpful information for the campus community.

Call 911 for serious emergencies.

District (206) 934-5442
Central (206) 934-5442
North (206) 934-3636
South (206) 934-5157
SVI (206) 934-4933

Safety & Security

Students are obligated to respect the rights of others and to refrain from any actions endangering the health, safety, and welfare or property of others. Students are expected to comply with the policies, procedures, and regulations approved by the Board of Trustees and with Washington state and federal regulations.

For additional information: www.seattlecolleges.com/district/prospectivestudents/studentrules.aspx

Campus Crime Data

Statistics on criminal incidents, as required by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, are available at college safety/security offices, as well as on individual campus websites. For the last three years, campus crime data, along with general information, is provided by the Office of Postsecondary Education of the U.S. Department of Education: www.ope.ed.gov/Security.
Accidents
The students’ well-being and safety are of utmost importance. It is vital that everyone follow strict safety procedures recommended in all classes, particularly professional technical classes. In the event of an on-campus accident or injury, students and faculty should report the accident to the Security Office so the injury can be addressed and an accident report completed. Do not hesitate to immediately call 911 for serious injuries. Instructors must be notified if the accident occurs during class.

Alcohol and Drugs
Alcohol and drugs are prohibited. The district prohibits the abuse of alcohol and the unlawful manufacture, distribution, possession and use of illicit drugs. This policy applies to all employees and students of the Seattle Colleges while they are on District property or while they are conducting college business, regardless of location. To provide a healthy, safe, and secure working and learning environment, each employee and student of the Seattle College District is expected to be in an appropriate mental and physical condition to perform assigned duties and fully participate in the learning process. Seattle College District Policy 249 (“Drug-Free Workplace”), and resources for students and employees who need assistance with substance abuse problems, are outlined in a brochure available on each campus and at seattlecolleges.edu/policies.aspx.

National Institutes of Health provide a list of drugs and their dangers and effects: www.drugabuse.gov/drugs-abuse.

Firearms
The possession of firearms on campus is not allowed.

Workplace Violence/Hostile Work Environment
Workplace violence or a hostile work environment will not be tolerated at the Seattle Colleges (District Policy 451).

Sexual Harassment
The Seattle College District is committed to providing a working and educational environment that is free from sexual harassment of any kind. It is not tolerated at any District institution. All employees and students have the right to a working and educational environment free from sexual harassment. This institution defines sexual harassment as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature.

Employees and students are encouraged to report their concerns or complaints about sexual harassment. Retaliation against any individual for making a complaint about or cooperating in a sexual harassment investigation is not permitted. Student complaints regarding sexual harassment shall be processed in accordance with District Policy and Procedure 419.

Smoking
Smoking is prohibited indoors, and within 25 feet of the entrance to any public building, per Washington state law. North Seattle College is a tobacco-free campus. The use of tobacco products, chew, or e-cigarettes/vapor is prohibited on campus grounds.

Traffic Laws
State motor vehicle laws and the Seattle traffic code apply to campus traffic. The campus speed limit is 15 miles per hour unless posted otherwise.

Disciplinary Action
Disciplinary action will be taken against students who violate standards of conduct established by the college. If informal procedures do not resolve the issue, formal committee proceedings may be initiated.

HIV/AIDS
Transmission of HIV and Prevention of AIDS
To ensure the health and well-being of our college community, and to be in compliance with state codes, the Seattle Colleges provide the following resources for information about transmission of the Human Immunodeficiency Virus (HIV), the causative factor leading to Acquired Immune Deficiency Syndrome (AIDS). Complete and current information about specific risk factors for HIV/AIDS is available at the Seattle/King County Department of Health.

HIV/AIDS Program
400 Yesler Way, 3rd Floor
Seattle, WA 98104
(206) 296-4649

Find information about HIV and AIDS at www.kingcounty.gov/healthservices/health/communicable/hiv.aspx

Emergency Preparedness & Communications
The Seattle Colleges work together to develop and share procedures and communications tools for use during unforeseen emergencies. Because the safety of students and staff is of greatest concern, a variety of systems are now available at each campus, and safety measures are reviewed and expanded on an ongoing basis.

Among resources available to students, faculty and staff is SeattleColleges Alerts, which is powered by Rave Mobile Safety. These alerts allow the colleges to communicate quickly with students and employees during weather-related delays, closures, and other campus emergencies, by sending alerts to computers and mobile devices, via email and text message.
Learn more about Seattle Colleges Alerts by visiting seattlecolleges.edu/alerts.

For more information about emergency communications and contacts, preparing for an emergency, and procedures for closure at the Seattle Colleges: seattlecolleges.edu/emergencies.aspx.

Districtwide information & Policies

Equal Opportunity Statement and Accommodation for District Students and Employees

The Seattle College District, which includes Seattle Central, North Seattle and South Seattle Colleges and Seattle Vocational Institute, is committed to the concept and practice of equal opportunity for all its students, employees, and applicants in education, employment, services and contracts, and does not discriminate on the basis of race or ethnicity, color, age, national origin, religion, marital status, sex, gender, sexual orientation, gender identity, status as a veteran or disabled veteran, political affiliation or belief, citizenship/status as a lawfully admitted immigrant authorized to work in the United States, or presence of any physical, sensory, or mental disability, except where a disability may impede performance at an acceptable level. In addition, reasonable accommodations will be made for known physical or mental limitations for all otherwise qualified persons with disabilities.

Inquiries regarding compliance and/or grievance procedures may be directed to the college’s Title IX/RCW 28A.640 officer and/or Section 504/ADA coordinator.

TITLE IX/CHAPTER 28A.640 RCW OFFICER

Central & SVI  Kathryn Woodley  (206) 934-4125
North  Martin Logan  (206) 934-7792
South  V.P. of Student Services  (206) 934-6763

SECTION 504/ADA COORDINATOR

Central & SVI  Al Souma  (206) 934-4169
North  Rebecca Cory  (206) 934-7808
South  Roxanne Tillman  (206) 934-5137

Simplified Chinese

西雅图社区学区包括西雅图中央社区学院、北西雅图社区学院和南西雅图社区学院以及西雅图职业学院，致力于在教育、就业、服务及合同方面推行其所有学生、员工和申请者在教育、就业、服务及合同方面机会均等的理念和做法。我们不会因种族或族裔背景、肤色、年龄、国籍、宗教、婚姻状况、性、性别、性取向、性别认同、退伍军人或伤残退伍军人身份、政治派别或信仰、公民身份/是否拥有能在美国合法工作的移民身份，或者因患有任何身体、感官或精神残疾或歧视他们，除非这些残疾阻碍其发挥可接受程度的正常表现。此外，我们会为那些在身体或精神方面有已知残疾但符合其它方面资格的人士提供合理的照顾。关于合规/或申诉程序的咨询，可提交给学校的教育修正案第九章/RCW 28A.640（性别平等）专员和/或康复法案第504节协调员。

Russian

Округ двухгодичных колледжей Сиэтла (Seattle College District), в состав которого входят двухгодичные колледжи Центрального (Seattle Central College), Северного (North Seattle College) и Южного Сиэтла (South Seattle College), а также Профессионально-технический институт Сиэтла (Seattle Vocational Institute), придерживается принципов и практики равенства возможностей для всех студентов, работников и соискателей в сфере обучения, занятости, услуг или заключения контрактов и не дискриминирует на основании расовой или этнической принадлежности, цвета кожи, возраста, национального происхождения, вероисповедания, семейного положения, пола, половой ориентации, гендерной самоидентификации, статуса ветерана или инвалида войны, политической принадлежности или политических убеждений, гражданства или статуса иммигранта, законно допущенного в США с разрешением на работу, или наличия нарушений физического, сенсорного или психического развития, за исключением случаев, когда такие нарушения могут воспрепятствовать приемлемой деятельности. При этом всем выявленным лицам с физическими или психическими нарушениями, допущенным к учебе или работе, предоставляются адекватные условия в разумных пределах. Запросы и/или жалобы, связанные с политикой недискриминации, можно направлять ответственному по колледжу за соблюдение поправки Title IX/RCW 28A.640 и/или координатору по разделу Section 504/ADA.

Somali

Degmada Kulliyada Jaaliyada Seattle «Seattle College District», oo ay ku jiraan Bartamaha Seattle, Kulliyadda Jaaliyada Woqooyiga iyo Koonfurta Seattle iyo Dugsiga Mihnadda Seattle ayaa u daacad ah aarada guud iyo ku-dhaqanka u sinnanta fursadaheeda dhammaan ee ay siisoo ardaydeeda, shaqaalahaadeedada iyo kuwa soo codsada waxbarashada, shaqadda, adeegyada, qandaraasyada, kala soocna aasaasiga ugu dhiigto jinsiyad ama qolo, midab, da’, qowmiyadda asalka qofka, diin, xaalad guur, jinsi, jandarka, ujeedka isu tagga, aqoonsi sinji, xaaladda qof askari ahaan jiray ama askarinimo ku naafobay, ku lug la haahaanshaha siyaasad, aaminad, xaaladdisaa muwaaddinnimo dadankaan si sharci ahaan loogu ogolaadey inuu ugu soo haajirey oo loo ogol yahay inuu ka shaqeysto ama jiritaanka naafada jirka, dareenka, ama naafada maskaxda, laga reebo markay naafoniimadu ka hor istaageysow hoqsha shaqada ee laga rabo. Waxa intaa dheer, u-waafajin (accommodations) macquul ah oo xaddidan ee la og yahayaa loo sameyn ee jirka ahaan ama maskadaeeyada dhamaan dadka naafoniimada leh ee arrinta u qalma. Qofka hoos ku qoran ayaa loo magacaabay inay wax ka qabato weydiimaha ku saabsan arrimaha ujeeddooyinka kal-sooc-la’aanta oo ay ku jirto kuwa la xiriira Sec 504 ADA iyo Title IX.
Spanish
Seattle College District, que incluye Seattle Central, North Seattle y South Seattle Colleges y Seattle Vocational Institute, tienen un compromiso con el concepto y la práctica de la igualdad de oportunidades para todos sus estudiantes, empleados y postulantes con respecto a educación, empleo, servicios y contratos, y no discriminan por motivos de raza o grupo étnico, color, edad, nacionalidad, religión, estado civil, sexo, género, orientación sexual, identidad de género, condición de veterano o veterano discapacitado, afiliación política o creencia, ciudadanía / condición de inmigrante admitido legalmente y autorizado a trabajar en los Estados Unidos, o presencia de alguna discapacidad física, sensorial o mental, excepto cuando la discapacidad pudiera impedir un desempeño de un nivel aceptable. Además, se implementarán todas las adaptaciones razonables para las limitaciones físicas o mentales conocidas para todas aquellas personas que cumplan con los demás requisitos y tuvieren discapacidades. La persona que se menciona a continuación ha sido designada para manejar las consultas con respecto a las políticas antidiscriminatorias, incluso aquellas relacionadas con la Sección 504 de la Ley para los Estadounidenses con Discapacidades (ADA, por sus siglas en inglés) y el Título IX como sea listado.

Vietnamese
Những Trường Đại Học Công Đồng Seattle, bao gồm Trường Đại Học Công Đồng Trung Seattle, Bắc Seattle, Nam Seattle và Seattle Vocational Institute, cam kết với các khái niệm và thực hành của các cơ hội bình đẳng cho tất cả các sinh viên, nhân viên và các duong đơn trong giáo dục, việc làm, dịch vụ và hợp đồng. Trường cũng không phân biệt đối xử dựa trên sắc tộc hoặc chủng tộc, màu da, tuổi, quốc gia nơi xuất thân, tôn giáo, tình trạng hôn nhân, phái tính, giới nhận dạng giới tính, di truyền hoặc chiến binh hoặc war veteran hoặc mặt tật, sự liên kết chính trị hoặc quan điểm chính trị, tình trạng công dân/diễn di từ nhập cảnh hợp pháp hoặc lâm viên hoặc viên Hoa Kỳ, hoặc cơ tình trạng khuyết tật về thể chất, giác quan, hoặc tâm thần, trừ khi tình trạng khuyết tật có thể gây trở ngại tới khả năng sinh hoạt ở mức độ chấp nhận được. Ngoài ra, trường sẽ cung cấp các phương tiện trợ giúp đặc biệt cho tất cả những người khuyết tật hoặc dị biệt như các hạn chế về thể chất hoặc tâm thần. Yếu cầu về tuân thủ hoặc thủ tục khuyến nghị, xin vui lòng liên hệ đến nhân viên của trường Đại Học Danh IX/RCW 28A.640 và / hoặc Phân Bởi 504/ADA như được liệt kê.

Disability Services
seattlecolleges.edu/district/studentlife/ada.aspx
Disability Services provide accommodations to persons with documented disabilities. This is carried out within the overall goals and mission of the Seattle Colleges Policy and Procedure 387 Accommodations for Students with Disabilities.

Legal Authority: U.S. Americans with Disabilities Act P.L. 93-112) and RCW 49.60.
To be eligible for disability-related services, students must have a disability as defined by the Americans with Disabilities Amendments Act of 2008 (ADAA) and Section 504 of the Rehabilitation Act of 1973. Under the ADAA and Section 504, a person has a disability if he or she has a physical or mental impairment that substantially limits one or more of the major life activities (e.g. walking, standing, seeing, speaking, hearing, sitting, and breathing).

On each campus, Disability Services is the designated office that obtains and files disability-related documents, certifies eligibility for services, helps determine academic adjustments, and consults for the provision of such accommodations. Academic adjustments are provided to ensure access to all college courses, programs, counseling, activities, and facilities.

Disability Services provides or arranges a variety of auxiliary services to the college, such as sign language interpreters, assistive technology, exam accommodations, and academic assistance. Students are encouraged to give as much advance notice as possible for accommodations as some may take several weeks to arrange. Insufficient notice may result in delayed or unavailable accommodations.

The Disability Services offers consultation to faculty, staff, and classified employees of the college for the purpose of designing accommodations that provide equal access to otherwise qualified students regardless of age, gender, race, or sexual orientation.

Title 38/Title 10
Seattle Colleges academic programs of study are approved by the Higher Education Coordinating Board’s State Approving Agency (HECB/SAA) for enrollment of persons eligible to receive educational benefits under Title 38 and Title 10, U.S. Code.
Completion & Transfer Rates

Statistics and information on Completion and Transfer Rates at the colleges are available on these websites:

Central: seattlecentral.edu/planning/facts.html
North: northseattle.edu/about-north/college-statistics
South: southseattle.edu/campus/studentstats.htm
District: seattlecolleges.com/district/district/facts.aspx

The official rules for students at the Seattle Colleges can be found in the Washington Administrative Code, Chapter 132F-121 WAC – Student Activities, Rights, and Discipline. The Washington Administrative Code (WAC) is the official compilation of all current rules that have been adopted by state institutions of higher education and other state administrative agencies.


District Policies Relating to Students

View Seattle College policies at seattlecolleges.edu/district/studentlife/studentrules.aspx#official.

Every reasonable effort has been taken to ensure the accuracy of this information. However, readers are encouraged to contact the individual Student Services departments at each college for further information.

Student Progress (Academic)

See page 39.

Student Complaints

The Seattle Colleges have established procedures to assist students who feel they have a complaint relating to grades or an action by a member of the college community.

Before pursuing formal action, students are encouraged to first pursue an informal resolution. Students have 15 calendar days from the end of the informal process or within 90 days of the cause of the complaint to submit a formal complaint. Contact the respective Complaints Officer at each campus for further information.

Central
Dean of Student Development
(206) 934-3890

North
Human Resources Director
(206) 934-7792

South
Dean of Diversity, Retention & Student Leadership
(206) 934-6749

SVI
Executive Dean of Instruction and Executive Partnerships
(206) 934-4950

Memberships

The Seattle College District is a member of several national organizations for higher education, including the American Association of Community Colleges (AACC), American Association for Women in Community Colleges (AAWCC), Association of Community College Trustees (ACCT), League for Innovation in the Community College, Council for Adult & Experiential Learning (CAEL), RC-2020, and the National Council for Black American Affairs (NCBAA).

In Washington, the District holds membership in the Trustees Association for Community and Technical Colleges (TACTC), the Washington Association of Community and Technical Colleges (WACTC), the Governor’s Aerospace Futures Alliance Board, and Staff Training for Technical and Community Colleges (STTACC).

Regionally, the District belongs to the Seattle/King County Economic Development Council, Workforce Development Council Board, Port Jobs Board, Seattle Chamber of Commerce, the Road Map Project Sponsor Group, the Puget Sound Coalition, and the Northwest Commission of Colleges and Universities (NWCCU).
Welcome

What’s the Seattle Central experience like? It’s small classes, engaging instructors, challenging programs, and a diverse student body, set in a vibrant urban neighborhood in the heart of Seattle. It’s about starting your four-year degree, learning marketable skills, and making connections. Most of all, it’s about becoming a better, more capable you.

Each year more than 15,500 students choose Seattle Central College to help them meet their educational goals. We are proud to be one of the most diverse educational institutions in Washington state. We attract people from all walks of life who seek education to better their lives, representing a multitude of ages, races, nationalities, ethnicities and backgrounds, which creates a rich learning environment.

Our main campus on Capitol Hill is easily reached by public transportation and light rail connecting the campus to other parts of the city, including the University of Washington. Our urban location offers countless choices for shopping, dining, and entertainment.

We also offer classes at three nearby locations. The Wood Technology Center, in the Central District, has been training woodworkers since 1936. The Seattle Maritime Academy features a new facility on the working waterfront in Ballard and trains students to work in the maritime industry. Our Health Education Center at Pacific Tower in Beacon Hill opened in 2016 and features the latest in medical technology to prepare students to work in the healthcare industry.

The college offers a range programs, degrees, and certificates serving the career goals of students and the demands of employers in culinary arts, apparel design, information technology, maritime, healthcare, and social and human services. All programs provide real-world, hands-on training from instructors who stay current with the latest industry trends.

Whatever your educational goals, Seattle Central can help. Unlike many colleges, we have an open admissions policy. If you want to succeed in college, we have a place for you. Visit www.seattlecentral.edu/future or call (206) 934-3898.

Getting Started at Central

Admissions
International Students (206) 934-5450
(206) 934-3893

Financial Aid (206) 934-3844

Information Center (206) 934-3800

Registration (206) 934-6918

Mission

Seattle Central College promotes educational excellence in a multicultural urban environment. We provide opportunities for academic achievement, workplace preparation, and service to the community.

Core Themes

- Responsive Teaching and Learning
- Catalyst for Opportunities and Success
- Diversity in Action
- Communities Engagement
Facts at a Glance*

2015–2016 ANNUAL PROFILES
Annual attendance 2015–2016 14,967

Special Enrollments
Distance Education 6,976
Running Start 396
International Students 2,518
Worker Retraining 397

FALL 2016 PROFILES
Students **
Median age 27
Ethnic diversity 58%
Male/Female 42%/58%
With bachelor or higher degrees 13%
Employed 49%
full-time 23%
With dependents 16%
single parents 6%
Full-time/Part-time attendance 42%/58%

Programs
College Transfer 38%
Professional Technical 34%
Basic Skills 12%
Pre-college & Other 16%

Course Funding Sources
State-funded 80%
Contract-supported 8%
Student-supported 12%

* Source: State Board for Community and Technical Colleges
Data Warehouse and Seattle College District’s Database.

** State-funded

Specialized Training Centers

Seattle Maritime Academy
4455 Shilshole Ave NW, Seattle, WA 98107
(206) 934-2647
maritime.seattlecentral.edu

Seattle Maritime Academy’s focus is as a professional/technical school helping supply the industry with confident and competent middle rate mariners to fill the looming gap in the maritime workforce. We support Seattle and the Pacific Northwest in preparing students for family/living wage jobs to rebuild the middle class. It is located in the heart of Ballard on the working waterfront of the Lake Washington Ship Canal. The Academy offers certificate programs in Marine Deck Technology and Marine Engineering Technology, as well as community education training in a variety of marine-related subjects. The Academy also provides professional development and customized trainings and skill building classes to private-sector companies, government agencies, military units and unions.

Wood Technology Center
2310 S Lane, Seattle, WA 98144
(206) 934-5460
seattlecentral.edu/woodtech

The state-of-the-art Wood Technology Center has trained Northwest woodworkers since 1936. Programs include core training in safety, skills, tools, and materials and specializations in cabinetmaking, fine woodworking, carpentry, marine technology, boat building, and repair. Students can earn associate degrees or a series of skill-specific certificates.

Health Education Center
1200 12th Ave S, HEC 202 Seattle, WA 98144
(206) 934-4347
seattlecentral.edu/health/

Seattle Central’s Health Education Center offers a variety of intensive, hands-on training programs that prepare students for successful healthcare careers. Occupying five floors of the historic Pacific Tower on Beacon Hill, the center contains facilities that include modern labs equipped the latest healthcare technology, providing a real-world training environment. With day, evening and hybrid classes, students have the flexibility to enroll in certificate, associate degree and bachelor’s degree programs, in Dental Hygiene, Respiratory Care, Nursing, Surgical Technology, Healthcare Services Management and more.
Academic & Student Support Services

Advising Center
(206) 934-4068
seattlecentral.edu/advising

The Advising Center helps students set long-range educational goals, provides assistance with scheduling, transfer guidance, entry advising for professional/technical programs, unofficial transcript evaluation and referrals to college services. Students using the center expect to transfer for further education, and often plan to receive an associate degree before transferring to another college. Students not planning to transfer can receive advice through their specific areas, such as Running Start, Professional Technical programs, Basic Studies, International Education or Bachelor’s Degree programs.

Career Services Center
(206) 934-4383
seattlecentral.edu/careercenter

Career Information
The Career Services Center provides career exploration assessments and web-based resources, college major information and their relationships to careers, as well as a wide variety of career-related resources for students who are undecided about their major and career paths. In addition, the center coordinates and delivers career-related presentations in classrooms and the community, offers individual career testing and counseling, an annual career fair, scholarship and grant information, and application assistance.

Employment Assistance
The Career Services Center offers job listings online and in hard copy; an automated online job board for students and alumni called Career Hub; job search information; résumé and cover letter critiques; mock interviews; employer fairs; and access to computers for job searches, as well as résumé and cover letter preparation.

Class Schedule Quarterly
(206) 934-3800
mycentral.seattlecolleges.edu

Seattle Central produces a quarterly class schedule that lists specific courses offered that quarter. It is available online approximately six weeks before the start of each quarter. To view the online class schedule, visit Seattle Central’s home page and click on “class schedule.”

College Success Program
(206) 934-3168
seattlecentral.edu/collegesuccess

The College Success Program is especially designed to support students who have been in the foster care system. Resources and support include assistance with: enrolling, attending, completing, and transitioning to employment or a four-year transfer degree to move on to university. In addition the program provides advocacy support, and a network of campus and community support systems, and depending on eligibility limited and specific financial assistance for qualified school expenses and living costs. Please visit room BE 4170A to learn more, register for the program, and see eligibility requirements for financial assistance.

College Transfer Center
(206) 934-5469
seattlecentral.edu/transfer

Services in the College Transfer Center are available to all registered Seattle Central students who want to transfer to a four-year college or university to pursue a bachelor’s degree. The Transfer Center enables Seattle Central students to learn about transfer opportunities and to meet representatives from local and national four-year schools at college fairs, events, and workshops each quarter. The center houses college catalogs, transfer guides, applications, and transfer planning materials. There are two student computers to help students conduct college searches, complete online applications and write transfer essays. The staff is available to answer questions and provide support throughout the transfer process.

Computer Center
(206) 934-4194
seattlecentral.edu/it-services/computeralbs

The Computer Center is open to all Seattle Central students and has PC and Apple computers with student network software and Internet connectivity. Printing is available at minimal cost. Current Seattle Central enrollment is required. A student ID number is required for access and a student ID card for equipment checkout. Visit the Computer Center in Room BE3148 for more information.
Counseling Services
(206) 934-3295
seattlecentral.edu/counsel
The primary goal of counseling is the retention of students by addressing educational, career, and personal issues. Counselors also teach strategies helping students develop critical thinking skills, set academic goals, engage in lifelong learning, develop skills for employment, maintain personal wellness, and help support strategies that assist students to navigate a diverse environment. Counselors are assigned to individual departments.

Disability Support Services
(206) 934-4183
seattlecentral.edu/disability-support
The role of the Disability Support Services office is to provide physical and academic accommodations to students with documented disabilities. This office helps determine academic adjustments, and consults for the provision of such accommodations. Disability Support Services arranges for a variety of auxiliary services such as sign language interpreters, assistive technology, extended time on exams and academic assistance. To avoid delays, auxiliary requests such as ordering books in an electronic format and interpreting services for ongoing classes require four weeks advance notice. At least three business days are required for special requests/one-time Interpreting services.

Located in BE 1112, this office also offers consultations to faculty and staff to help design accommodations that provide equal access.

See page 45 for specific details and additional information on eligibility and policies.

International Education
Student Services
(206) 934-3893
seattlecentral.edu INTERNATIONAL/index.php
International Students: This office helps international students get started in their educational programs and adjust to the Seattle area. It offers advising, counseling, activities, and additional resources in BE 1113.
Study Abroad: This office also offers instruction on various Study Abroad opportunities, internships abroad, and international service learning.

See page 27 for additional information about International Programs.

Library & Media Services
Circulation (206) 934-4050
Reference (206) 934-5421
Media (206) 934-4053
seattlecentral.edu/library
The main library for Central campus, located in BE 2101, maintains collections of books, reserved textbooks, e-books, periodicals, DVDs, CDs, and research databases to support student learning. Student network computers, laptops, iPads, Chromebooks, and Wi-Fi are available. The library also provides study space, group study rooms, photocopiers, scanners, and media equipment. Librarians offer individual reference service to students seeking research help in person and online through email and 24/7 chat reference. Librarians also teach credit courses on information research and course-integrated research workshops.

Multicultural Services
(206) 934-4085
Multicultural Services is committed to creating an institutional climate and practice that supports Seattle Central’s diverse student populations in achieving their academic goals. The office, located in BE 1103, develops innovative services, collaborates with other college departments and divisions on campus-wide initiatives, presents professional development activities on multiculturalism and diversity, and disseminates information on diversity resources for students, faculty and staff. Multicultural Services advances institutional responsiveness to the needs of students of diverse cultural backgrounds through such efforts as the Annual Students of Color Conference, which supports critical thinking, leadership skills and social justice activism.

Senior Adult Education
Washington state residents 60 years or older may register for up to two courses for audit or credit, for a fee of $5 per class. Seniors register on a space-available basis beginning the second week of the quarter but prior to the tenth day of the quarter. Students should attend class the first week of the quarter with instructor permission while waiting to find out if space is available. If the instructor allows the student to attend, the student should pick up an enrollment form from the registration or information center to obtain instructor’s signature to enroll. Students are responsible for any additional charges, such as I.D. card, lab fees, activity fee, transportation fee, books or supplies. When seniors enroll for more than two courses, they pay for the additional credits at regular tuition rates. Credits taken using the senior citizen waiver cannot be used toward degree completion.
Student Academic Services/Tutoring

Seattle Central Learning Support Network
(206) 934-0973
seattlecentral.edu/learningsupportnetwork
The Learning Support Network provides high quality academic support to Seattle Central’s diverse student population in order to improve comprehension, increase competence, instill confidence, and promote success. This consortium of learning centers works together to provide uniform and proven support to students. Services are free to all current students, who can choose individual appointments, walk-in or online support. Trained tutors include alumni, retired instructors and current students.

BE Learning Center
(206) 934-0973
seattlecentral.edu/learningsupportnetwork
The BE Learning Center in BE 2102 provides one-to-one learning support and a quiet area for personal studying. Students can find help with humanities, writing, business, accounting, economics, languages, ASL/ITP, culinary arts and apparel design courses. Appointments can be guaranteed by booking up to a week in advance. Walk-ins can get help if tutors are available.

Math Path
seattlecentral.edu/learningsupportnetwork
Email: samlearningsupport@seattlecolleges.edu
The Math Path in Science and Math 100 provides learning support specifically for students enrolled in pre-college math (Math 080, 081, 087, 088, 091, 092, 096 and 098). Faculty and student peer tutors work together to model and foster successful math learning.

Science and Math (SAM) Learning Centers
seattlecentral.edu/learningsupportnetwork
Email: samlearningsupport@seattlecolleges.edu
Mon–Fri, 9 am–6 pm
Each discipline in the Science and Math building provides learning support for students on a drop-in basis. Visit the SAM Learning Centers in SAM 100 for help with math, chemistry, physics, computer science, and engineering. Several computers are available for students who need assistance with online assignments.

The Biology Learning Center, located on the 3rd floor of the SAM building, is a drop-in center that allows students to use course- and laboratory-specific materials.

TRiO Student Academic Assistance
(206) 934-3852
seattlecentral.edu/trio
In BE 1102B1 Student Support Services, a TRiO program funded by the U.S. Department of Education, promotes retention, graduation and transfer of underserved students through the delivery of targeted services to empower personal, academic, and professional growth. Services include counseling, tutoring, career advice, college campus tours and quarterly cultural events. Eligible students need to be either first generation, or low-income, or have a documented disabilities. For more information, stop by the TRiO office.

Testing Office
(206) 934-6344
seattlecentral.edu/testing/
Most students seeking a degree or certificate or enrolling in most English or mathematics classes must take placement tests prior to registration. These tests help the student and advisor to select appropriate classes. This office also offers ASL (American Sign Language) placement tests, ESL placement tests, GED exams and exam proctoring services for other institutions. Testing schedules and detailed descriptions are available online or by phone.

Veterans Affairs
(206) 934-4147
seattlecentral.edu/veterans
For information about using VA benefits to attend Seattle Central College or how to qualify for Veterans tuition discount, visit the website or contact the Veterans Coordinator in BE 1104C. For a complete description of the educational benefits for veterans and their dependents, as well as assistance for students interested in pursuing careers in the military, visit the U.S. Veterans Affairs website at www.va.gov.

See page 33 for more details.
Women’s Programs

907 E Pine St.
Seattle, WA 98122
(206) 934-3854
seattlecentral.edu/student-support/womens-programs.php

Through the Wednesday noon lecture series “Women in Society,” campus health fairs, and other student events, Women’s Programs build community awareness around gender concerns while creating a voice and community. It provides information about a variety of community financial resources and other forms of assistance to all students. It coordinates a schedule of visiting community partners available to meet with students to provide resources and additional referrals. Emergency funds are available for students who qualify through a variety of resources.

Workforce Services

(206) 934-3854
seattlecentral.edu/workforce/
907 E. Pine
Seattle, WA 98122

WorkForce Services assists students in identifying and achieving their educational and career goals, with a special emphasis on support for low-income returning students pursuing non-traditional career options and training in high-wage, high-demand jobs.

Financial assistance for tuition, books, and supplies is available to students who qualify through the Worker Retraining program, Basic Food Education & Training (BFET) program, WorkFirst programs, and Opportunity Grant programs. Visit startnextquarter.org to help determine preliminary eligibility.

Educational Planning with professional staff helps students access education and success through individual plans, campus and community resources.

Both current students and those wanting information and assistance in attending Seattle Central can contact WorkForce Services.

Art Gallery

M. Rosetta Hunter Art Gallery
(206) 934-4379
9:30 am–3:30 pm, Mon–Fri
5–7 pm, Tues and Wed

The Art Gallery, located in the Atrium, is an educational exhibition space that enhances Seattle Central’s academic goals and contributes to the cultural enrichment of the institution. It hosts exhibits and activities that reflect and serve our multicultural population. The Gallery presents approximately nine exhibits throughout the academic year, and one show during the summer. Many feature the work of Seattle Central students and graduates.

Bookstore

(206) 934-4148
seattlecentral.bncollege.com

The Bookstore, located in SAC 250 across the street from the main college building on Broadway, carries required and recommended textbooks for courses. Textbooks and supplies can also be ordered online at seattlecentral.bncollege.com. The Bookstore offers a wide array of rental and digital titles, as well as new and used textbooks. Rentals can save you up to 50 percent of the cost, and e-textbooks can be as much as 80 percent less than a new textbook. The bookstore offers a textbook buy-back service year-round with a special buy-back for students with proper ID during final exam week of each quarter. It also carries school supplies, clothing, gifts and snacks. For hours of operation and current information, visit the website or facebook.com/seattlecentralbooks.

Campus Optical

(206) 934-5440
seattlecentral.edu/campus-optical

Campus Optical fills prescriptions, fits eyeglasses, and contacts as part of the college Opticianry program. Licensed optometrist appointments are available. The office is open to the public In BE 2123. Call for hours of operation.

Copy Center

(206) 934-5419
Online ordering: seattlecentral.edu/copycenter/index.php

The Copy Center in BE 3105A provides copying service for students, faculty, and staff. In addition to copying services, self-service copiers are available. Supplies such as blue books, scantrons, envelopes, transparencies, and course packets are for sale here. Fax service available within the U.S.
Cosmetology Salon
1500 Harvard Avenue
(corner of Pike & Harvard)
(206) 934-5477

The Salon is staffed by cosmetology students from Seattle Vocational Institute, which is affiliated with Seattle Central. Students are always under the supervision of cosmetology staff, and perform a wide range of services at reasonable cost to the public.

Erickson Theatre
1524 Harvard Avenue (between Pike & Pine on Capitol Hill)
The Erickson Theatre is the home of the SCC Drama Department; teaching drama and technical theatre classes as well as being used for campus and community special events.

Food Services
(206) 934-4319
All are open to the public.

The Atrium cafeteria is open from 7:30 am to 6:00 pm Mondays–Thursdays and until 2:30 pm on Fridays. The Atrium features a variety of cafeteria-style food, including a breakfast menu, burgers, pizza, beverages, healthy salads, sandwiches, Grab ‘n Go items and pre-packaged snacks.

The Buzz by the Broadway entrance offers a wide variety of espresso, coffee, and smoothies as well as pastries and other sweets created by the Culinary Arts students. It is open from 7:30 am to 6:00 pm Mondays–Thursdays and until 2:30 pm on Fridays.

The Buzz Pastry Case offers both savory and sweet baked goods and pastries made by students of the Specialty Desserts & Breads program. Selections include a variety of breakfast pastries, European pastries, cakes, cookies, many desserts, chocolates and a large selection of rustic artisan breads. It is open 10:00 am to 3:30 pm Tuesdays to Fridays.

During Fall, Winter, and Spring Quarters, students from the Culinary Arts program prepare and serve a variety of specialty meals in the Square One Bistro and One World Dining Room. Guests who dine at our student run restaurants give students the opportunity to acquire the necessary experience to be successful out in industry. These restaurants are open to the public Tuesday through Friday, from 11:15 am to 12:45 pm.

Square One Bistro features contemporary, casual dining with fresh market salads, soups, entrees and baked goods, as well as pastas and artisanal pizzas from the WoodStone oven.

One World Restaurant offers seasonally focused, ever-changing menus with global influences, featuring quality local and sustainably-produced ingredients.

For current menus, visit: www.seattleculinary.com.
Reservations for restaurants: (206) 934-4330

Summer Quarter students prepare “small-plate” cuisine of sample salads, sandwiches, canapés, entrées, pâtés, international street food and tantalizing desserts including house made ice cream and gelato. Most of the ingredients are sourced from student-grown produce on Skagit Valley farm lands. The menu changes daily. The small plates buffet is open Tuesday through Thursday from 11:15 to 1:00 pm. Restaurants close for several weeks during the year when students are in finals or on break. Check the website for current status and hours.

Public Safety
(206) 934-5442 Public Safety Department
BE 1108

Seattle Central College Public Safety Department is committed to providing a safe environment for the college community including students, staff, faculty and visitors. The department takes a community approach to campus security and safety prevention. It is important that everyone speaks up. If you see something suspicious, tell someone.

- For all on-campus emergencies, call 911. When calling 911 for assistance, clearly state the type of emergency: police, fire, or medical. Clearly state your name, location, and telephone number, building and room number. Describe the emergency and follow the dispatcher’s instructions. Do not hang up until told to do so by the 911 dispatcher. When it is safe to do so, please call Public Safety at (206) 934-5442.

- For all on-campus security and safety concerns, call Public Safety at (206) 934-5442, or stop by room BE 1108 to report a concern.

See page 42 for more information on personal safety.

Recreation & Fitness
Charles H. Mitchell Student Activity Center (MAC)
(206) 934-6315
seattlecentral.edu/wp/mac
7:00 am–8:00 pm, Mon–Fri; 10:00 am–4:00 pm, Sat and Sun

The Mitchell Activity Center offers a wide range of recreational and fitness activities. The facility includes a basketball gym, a running track, indoor squash and racquetball courts, a well-equipped game room, weight room, pool and ping-pong tables, cardiovascular workout equipment, as well as men’s and women’s saunas. Drop-in fitness classes, recreational tournaments, and events for students are also offered. Membership for faculty/staff and community members is also available.
Student Parent Support Program
907 E Pine St.
Seattle, WA 98122
(206) 934-3854

The Student Parent Support Program offers funding, parenting information and referral resources to student parents. Parents eligible for our quarterly, need-based, funding can receive financial assistance toward a portion of their child care costs. Through our resources, parents can learn how to access and choose quality child care. We support an on-campus parent club, with the purpose of providing an avenue for student–parents to network, support each other, and share information and tips. Our parent resource fairs and workshops are designed to celebrate and support our student-parents.

Student Leadership Division
Student Leadership
(206) 934-6924  SAC 350 (Above the bookstore)
seattlecentral.edu/student-leadership

Student Leadership supports student learning and success through leadership development and involvement opportunities on campus. Students can develop and practice organizational and leadership skills in a nurturing learning environment, enhancing personal, social, and professional development.

Associated Student Council (ASC)
(206) 934-4057  SAC 356

The ASC, the official student government of Central, is responsible for representing student interests to the college administration. ASC organizes a broad range of student committees, addresses issues and promotes services that support student interests. The ASC includes six student Executives, chosen each spring by a student vote, and six associates who work on specific projects.

College Activities Board
(206) 934-6335  SAC 355

The College Activities Board (CAB) enriches campus life through multicultural events and activities that celebrate diversity, involvement and collaboration, ranging from parties, dances and fairs to comedy shows and poetry nights to speakers on cutting edge social issues. CAB members learn all aspects of event planning.

Global Engagement Team (GET)
(206) 934-0971  MAC 314

The GET works to maximize interaction between local and international students, by coordinating the Conversation Partners language exchange program, assisting with orientation, and providing leadership opportunities that enhance the international student experience.

Organizations, Clubs, and Student Organization Resource Council (SORC)
(206) 934-4028  SAC 357

Clubs empower students to create community, explore learning outside the classroom, and put ideas into action. Contact the office for a list of student organizations on campus. The Student Organizations Resource Council (SORC) facilitates the organization and orientation of campus clubs, reviews student organization funding requests, and presents a Student Involvement Fair every quarter.

Committee Involvement

Students serve the college and gain experience through participation on committees that address specific campus issues, mobilize energy toward organizing events and activities, or provide policy recommendations to the administration. Information is available at the Student Leadership Office.

Leadership Institute
Drop-in training sessions every Thursday at 2:00 pm in MAC 210 are open to all students. Facilitated by various Central staff and Seattle community members, sessions cover essential leadership topics such as time management, individual core values, and listening skills.

Tournaments & Games Team
(206) 934-6315  MAC 151

Tournaments and Games Team (TAG) organizes and facilitates recreational and sports activities, and tournaments that promote student involvement, fair play and physical activity.

Website & Publications Team
(206) 934-0943  BE 4108

The Student Website and Publications (SWAP) Team is responsible for presenting the voice of students on campus through online and print publications that feature the creative, artistic and intellectual work of Seattle Central students, including fair, accurate, and inclusive reporting and analysis of activities and events on campus.
Phi Theta Kappa
(206) 934-2928
Phi Theta Kappa is the International Academic Honor Society of the two-year college. The members of Seattle Central chapter, Alpha Chi Zeta, promote Phi Theta Kappa’s mission to recognize and encourage the academic achievement of two-year college students and to provide opportunities for individual growth and development.

Student Development Transcript
The Student Development Transcript (SDT) provides an official record of students’ involvement in clubs, boards, committees and other extra-curricular activities and accomplishments at Central, which can enhance applications for transfer to four-year institutions, for scholarships, and for employment.

Transportation & Parking
Seattle Central Transportation Services
Room BE 1143
(206) 934-6932 (Parking)
seattlecentral.edu/transportation

Alternative Transportation
Seattle Central encourages alternate forms of transportation like mass transit, biking, carpooling, and walking. Bike racks/lockers are available on campus. Central’s main campus is well-served by Metro. Students registered for 10 or more credits are eligible to purchase a discounted ORCA transit pass issued by the college. The ORCA pass may be used to ride Sound Transit and Community, Everett, Kitsap, Metro, Pierce transit systems. For additional information, contact our office or visit our website.

Public Parking
A very limited supply of parking permits for Central’s parking garage is available for purchase by students who live more than five miles away. 30 days before the quarter starts, individual permits may be purchased online at seattlecolleges.edu/parkingpermits.

The Seattle Central Foundation
(206) 934-5491
seattlecentral.edu/foundation
The Seattle Central Foundation supports students, faculty and programs by raising funds and providing resources to help students achieve their fullest potential through quality education. As the official gift-giving agency for the college, the Foundation awards hundreds of thousands of dollars in scholarships to over 200 recipients each year. Additionally, the Foundation supports college-wide tutoring services, faculty development, and other programs and activities not funded by state or federal funds.

One scholarship is the Seattle Central Promise which has a goal to provide a full scholarship to every student at Seattle Central who demonstrates financial need, enrolls full-time and maintains at least a 3.0 GPA.

The foundation staff and board of directors are committed to the idea of creating possibility through education, by giving students the opportunities and access they might not otherwise have. Central’s foundation is a 501c3, non-profit organization.
General Education Definition and Rationale
See page 4.

General Education
Learning Outcomes
Seattle Central students will achieve personal and professional goals in diverse and multicultural settings because they are able to:

Think: Analyze, create, and reflect to address and appreciate challenges and opportunities
- Gather, interpret, and evaluate information
- Identify problems and issues
- Formulate hypotheses
- Generate and implement creative strategies
- Create and appreciate aesthetic work
- Evaluate their thinking process

Collaborate: Work effectively with others to learn, complete tasks, and pursue common goals
- Identify problems and create action plans
- Apply understanding and knowledge of group process
- Pursue and critically evaluate different social and cultural perspectives
- Manage conflict productively
- Engage in community and civic life

Communicate: Exchange ideas and information through intentional listening, speaking, signing, reading, writing, or presenting
- Determine the purpose and context for communicating
- Organize and present information purposefully
- Seek feedback and revise to enhance effectiveness
- Attend to conventions of communication to minimize barriers
- Consider perspectives, experiences, and cultural differences to develop understanding

Connect: Apply knowledge and skills to solve problems
- Select and use theoretical models, quantitative and qualitative techniques, information sources, and technology tools
- Identify and solve problems using logical strategies and evaluate results
- Gather data from various reliable sources and assess the validity and relevancy
- Critically evaluate solutions using research-based evidence
- Use technology and apply to a wide range of practices, fields, and industries

Continue Learning: Self-evaluate and act to improve knowledge and skills
- Analyze own performance and revise to improve
- Transfer learning by applying it in other contexts
- Increase knowledge by identifying gaps and acting to fill them
- Seek mentors and share knowledge with others
- Provide and receive feedback

Associate of Arts Degree
Learning Outcomes
See page 5.

Associate of Science Degree
Learning Outcomes
Seattle Central College students completing the A.S. degree should:
- Have college-level knowledge and skills in critical thinking, quantitative analysis, and written composition
- Have college-level mastery of information literacy and be technologically literate
- Demonstrate effective oral and written communication, teamwork and collaboration in scientific, mathematical and other settings
- Have the ability to design and conduct experiments as well as to analyze and interpret data
- Understand methods of inquiry specific to traditional and contemporary areas of knowledge in mathematics and the natural and physical sciences
- Understand the interdisciplinary and multicultural nature of knowledge
- Demonstrate academic honesty and ethical behavior
- Be able to appreciate and apply their knowledge of science in the outside world
Seattle Central College offers a wide spectrum of college transfer courses that apply toward a four-year program of study. Students are encouraged to earn their Associate of Arts or Associate of Science degree at Seattle Central College for greater ease of transfer to a four-year institution; they may also take individual classes for transfer. It is recommended that students confer with an academic advisor to ensure course transferability.

Students planning to earn an A.A. or A.S. degree must meet minimum standards of preparation. Those whose records and test scores indicate a need for additional preparation may be required to complete preliminary work in the college preparatory program.

- Accounting
- Anthropology
- Art
- Astronomy
- Biology
- Business
- Chemistry
- Communication
- Computer Science
- Earth Science
- Economics
- Engineering
- English
- Environmental Science
- General Science
- Geography
- Geology
- Health
- History
- Humanities
- Journalism
- Mathematics
- Music
- Nutrition
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Theater
- World Languages

These fields of study are grouped among three Areas of Knowledge and are included throughout the A.A. degree curriculum.

See pages 7-9 for more information on A.A. and A.S. degree requirements.

### Associate of Arts Degree (A.A.)

The Associate of Arts (A.A.) degree is a 90-credit transfer degree that fulfills the general education requirements for most four-year degrees in arts and sciences. To earn the A.A. degree, students must achieve a cumulative grade point average (GPA) of 2.0 or better in courses numbered 100 and above, complete at least 15 credits at one of the Seattle Colleges (North, Central or South) awarding the degree and meet all degree requirements. Students should contact an advisor to develop their programs of study.

### Associate of Arts or Sciences: Special Emphasis Areas

Students planning to transfer to a four-year institution and pursue a specific field of study should work closely with their advisor to plan their Associate of Arts (A.A.) or Associate of Science (A.S.) degree. In addition to the A.A. and A.S. degrees, special courses of study have been designed for the following areas of emphasis at Seattle Central College.

#### Emphasis in Deaf Studies

The Deaf Studies emphasis offers two years of intensive study in American Sign Language and Deaf culture, providing a cultural and communication foundation about deafness and Deaf culture. It is designed for students who plan to work in agencies that provide services for the deaf and hard of hearing; for students seeking further degrees in fields such as education, social work, counseling or linguistics; and for those seeking enhanced communication and relationships with deaf relatives, coworkers, friends and consumers. Contact Central Advising Office for further information.

#### Emphasis in Global Health

The Global Health emphasis can be completed within either the A.A. or A.S. transfer degrees and places a priority on improving health and achieving health equity. The focus is on worldwide health access and improvement, reduction of disparities, and protection against global health challenges. It prepares students to work with diverse populations, provide international service and understand the nuances of global health care.


**Emphasis in Global Studies**
This emphasis can be completed within either the A.A. or A.S. transfer degrees and integrates the study of politics, economics and the arts with the analysis of cultural practices, beliefs and social systems. Students learn to appreciate and understand world cultures, focus on themes of global significance and develop an interdisciplinary approach to international issues.

**Emphasis in Sustainable Agriculture**
This innovative emphasis offers interdisciplinary courses and hands-on service-learning and internship opportunities in the emerging field of urban agriculture. The emphasis provides a foundation of knowledge and skills for students interested in pursuing related education at four-year institutions or entering the green workforce. For details, contact Central Advising Office or visit seattlecentral.edu/learn/sage.

**Associate of Science Transfer (A.S.) Degree**
The Associate of Science (A.S.) is designed to transfer to a four-year college or university in the state of Washington. A.S. degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA. At least 15 college level credits must be earned at the Seattle College awarding the degree.

Two different study options are offered:
1. biological sciences, environmental/resources sciences, chemistry, geology and earth sciences
2. engineering, computer science, physics and atmospheric science.

*Please contact an advisor for more information on this degree program.*

**Associate of Science (A.S.) Degree**
The Associate of Science (A.S.) is intended to be a transfer degree. However, there are certain major areas of study in which the student may not be able to take all the courses necessary to transfer with junior standing. Please contact an advisor for more information on this degree program.

A.S. degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA. At least 15 college level credits must be earned at the Seattle College awarding the degree.

**Associate in Business (A.B.–DTA) Direct Transfer Agreement**
Students who complete the A.B. can fulfill many of the general education and business major prerequisites required for many Washington state public four-year college and university business programs.

**Associate in Business Requirements**
This degree shall be granted only to students who have completed 90 college level credits with a minimum cumulative 2.0 GPA.

*NOTE: While many Washington state universities accept transfer of this degree, each has individual requirements and/or acceptable course substitutions needed for their specific programs. Also, admission to many business schools is competitive and higher grades are often required. It is essential to learn the requirements of your transfer school and to consult Advising.*

**GENERAL EDUCATION REQUIREMENTS**

**Communication Skills**
ENGL& 101 English Composition I .................. 5
ENGL& 102 English Composition II.................. 5

**Quantitative/Symbolic Reasoning Skills**
MATH 116 Application of Math to Management, Life and Social Sciences .................. 5
MATH 148 Elements of Calculus .................. 5
-OR-
    MATH&141 Pre-Calculus I ...................... 5
    MATH&142 Pre-Calculus II ...................... 5
    MATH&151 Calculus I ......................... 5

**Visual, Literary, and Performing Arts**
Choose from a minimum of two different prefixes* ........ 15
* One U.S. Cultures class. See advisor for other electives.

**Individuals, Cultures, and Societies**
ECON& 201 Micro Economics ..................... 5
ECON& 202 Macro Economics ..................... 5
Non-ECON& prefix course .................. 5

**The Natural World**
Physical, biological, and/or earth sciences ............... 10
(at least one 5-credit laboratory course must be included)
BUS 210 Business & Economic Statistics .............. 5
-OR-
    MATH&146 Intro to Statistics ................. 5

**BUSINESS REQUIREMENTS**
ACCT& 201 Principles of Accounting I .............. 5
ACCT& 202 Principles of Accounting II ............. 5
ACCT& 203 Principles of Accounting III ............. 5
BUS& 201 Business Law ................. 5
General Electives* .................. 5

TOTAL CREDITS 90
Suggested Courses
Chemistry: CHEM& 161, 162, 163 (some majors require only 8 credits)
Engineering: ENGR& 111; ENGR 142, 161, 170, 171; ENGR& 214, 204, 225, 215, 224
English: ENGL 106; ENGL& 230
Math: MATH& 151, 152, 153; MATH 220, 238
Physics: PHYS& 221, 222, 223

Other Requirements
Credits in general education, English and liberal studies as required for an A.A. or A.S. degree.

See pages 7-9, 58 for A.A. and A.S. degree requirements.

Engineering Pre-Majors
Science & Math Division
(206) 934-3858

The courses listed below generally meet requirements for the first and second years of study toward completion of a four-year engineering program, but may not constitute a complete two-year program leading to junior standing. Students who anticipate transferring to a specific school should consult with a counselor for assistance in course selection.

B.A.S. Allied Health
Allied Health Division
(206) 934-4347

Community Health and Education Track
Bachelor of Applied Science in Allied Health

Developed for healthcare professionals with associate degrees, this program can be a great next step. This degree helps to provide a path for a medical assistant, dental assistant, pharmacy technician, dispensing optician, surgical technician, or other allied health professional to advance in his or her career and educational opportunities.

This bachelor degree track opens the door for you to work as a Health Educator or Community Health Professional in a variety of settings, including:
- Nonprofit health organizations
- Government agencies
- Hospitals
- Medical clinics
- Colleges

Prerequisites
An A.A.S.-T or A.A.S. degree in an allied health field, with at least a 2.5 overall GPA, is required to be accepted into this B.A.S. track. Allied health professionals with at least one (1) year of work experience in the healthcare field or a healthcare certificate or license are also eligible to apply with an A.A., A.S., A.B., B.A., or B.S. degree from a regionally-accredited college or university with at least a 2.5 overall GPA.

A certificate or license in an allied health field (active within the last 5 years) or at least one (1) year of relevant experience in healthcare (within the last five [5] years) is required to be accepted into this B.A.S. track.

Applicants must have completed ENGL& 101 with at least a 2.0 and be eligible for (or demonstrate completion of) MATH& 146 (or another approved statistics class) to be accepted into this B.A.S. track.

Technical Specialty Courses
The following courses must be completed with a grade of at least 2.0.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 330</td>
<td>Information Literacy for Health Sciences</td>
<td>5</td>
</tr>
<tr>
<td>AHE 401</td>
<td>Principles of Research</td>
<td></td>
</tr>
<tr>
<td>CHED 300</td>
<td>Health Communication</td>
<td>5</td>
</tr>
<tr>
<td>CHED 301</td>
<td>Principles of Community Health</td>
<td>5</td>
</tr>
<tr>
<td>CHED 311</td>
<td>Social Determinants of Disease</td>
<td>5</td>
</tr>
<tr>
<td>CHED 312</td>
<td>Health Behavioral Change Theoretical Foundations</td>
<td>5</td>
</tr>
<tr>
<td>CHED 322</td>
<td>Program Planning and Evaluation</td>
<td>5</td>
</tr>
<tr>
<td>CHED 341</td>
<td>Community Health Needs Assessment and Improvement</td>
<td>5</td>
</tr>
<tr>
<td>CHED 479</td>
<td>Community Health and Education Capstone</td>
<td>5</td>
</tr>
</tbody>
</table>

Technical Specialty Credits 45

Tuition rates are different for upper division courses.
See the rate chart on page 19.

Seattlecolleges.edu/bachelors

Seattle Central College offers two Bachelor of Applied Science degrees, one in Applied Behavioral Science, and the second in Allied Health Sciences, which has four tracks that can lead to the B.A.S. degree, depending on a student’s background.

B.A.S. degrees build on associate degrees that provide workplace skills in specific career areas. When compared to traditional bachelor’s degrees, applied baccalaureate degrees incorporate more applied, hands-on learning with strong internship components.

See page 70 for details about Central’s programs.
Central Programs of Study

Programs of Study

The following courses must be completed with a grade of at least 2.0.

ENGL& 101 English Composition ........................................... 5
ENGL& 102 Composition II ...................................................... 5
HUM 105 Interculture Communication....................................... 5

Following can be substituted:
CMST 205 Multicultural Communication ..................................... 5
MATH& 146 Introduction to Statistics ........................................ 5

Following can be substituted:
MATH 136 Inferential Statistics ............................................... 5
-OR-
PSYC 217 Intro to Probability & Statistics for Psychology .............. 5
-OR-
BUS 210 Business & Economic Statistics .................................... 5

Lab Science ............................................................................. 5

Humanities course ..................................................................... 5
Natural Science course ............................................................. 5

Social Science course ............................................................. 10

Humanities, Social Science or Natural Science course ................ 15

Including Math or Computer Science course

RELATED INSTRUCTION CREDITS .............................................. 60

ELECTIVES

The following courses must all be at the 100-level or above and be completed with a grade of at least 2.0.

Total required elective credits (75) can be a combination of the following:

Allied Health credits (block if transferred) ........................................ 0-75
Associate degree block transfer credits (if applicable) ...................... 0-75
Other academic electives ................................................................ 0-75
Other upper-division AHE, HSM, or ABS classes .......................... 0-75

AHE 426 Leadership and Team Building/ Organizational Dynamics .............. 5
CHED 310 Provider-Patient Communication .................................... 5
CHED 321 Healthcare for Vulnerable Populations ........................... 5
CHED 356 Fundamentals of Health Promotion & Health Education .................. 5

CHED 455 Health Policy Studies .................................................. 5

ABS 310 Professionalism and Ethical Practice ................................ 5

CHED 304 Principles of Higher Education in Allied Health .................. 5

Includes Math or Computer Science course

ELECTIVE CREDITS .................................................................. 75

TOTAL PROGRAM CREDITS ...................................................... 180

The Community Health and Education B.A.S. degree track can help you meet the requirements to apply to UW School of Medicine’s MEDEX Northwest Physicians Assistant training program. For more information, please email AlliedHealthB.A.S.Central@seattlecolleges.edu.

Dental Hygiene Track
Bachelor of Applied Science in Allied Health

Dental hygienists are an integral part of the dental team. They perform tasks including cleaning teeth, taking x-rays, administering local anesthetics, placing and contouring dental fillings, and educating patients about oral hygiene. Note: The educational environment contains multiple latex products and exposure to potential blood borne pathogens. Current infection control standards are taught in the program.

The Dental Hygiene track is approved by the American Dental Association Commission on Dental Accreditation. Upon graduation, students will qualify to take all national and regional examinations required to be licensed as a Registered Dental Hygienist (RDH) in Washington State. Graduates are eligible to take the Dental Hygiene National Board and all Western Regional Examining Board (WREB) components and apply for a license as a registered dental hygienist.

Students will earn a total of 195 credits during the full–time program, which includes working in the school’s dental clinic.

PREREQUISITES

Prerequisite credits (65 total) are included in the total credits required for degree

BIOl& 241 Human Anatomy and Physiology 1 .................................... 5
BIOl& 242 Human Anatomy and Physiology 2 .................................... 5
BIOl& 260 Microbiology ............................................................... 5
CHEM& 121 Intro to Chemistry ....................................................... 5
CHEM& 122 Introduction to Organic Chemistry ................................. 5
ENGL& 101 English Composition .................................................. 5
ENGL& 102 Composition II ........................................................... 5
HUM 105 Interculture Communication ............................................ 5

MATH 136 Inferential Statistics ..................................................... 5

Following can be substituted:
MATH& 146 Introduction to Stats .................................................. 5

NTR 150 Human Nutrition ........................................................... 5

PSYC& 100 General Psychology .................................................... 5
SOC& 101 Introduction to Sociology ................................................ 5

Following can be substituted:
ANTH& 206 Cultural Anthropology ................................................. 5

Humanities Electives .................................................................... 5

TECHNICAL SPECIALTY COURSES

Upon completion of the courses listed below and prerequisites courses (95 credits total), Allied Health Associate of Applied Science - T Degree (A.A.S.-T) can be awarded.

AHE 128 Introduction to Healthcare Practice .................................. 4
AHE 129 Introduction to Healthcare Applied Practice ....................... 4

DHY 250 Oral Biology ................................................................. 2
DHY 251 Human Pathophysiology ................................................ 3
DHY 252 Fundamentals of Dental Hygiene I ................................... 3
DHY 253 Clinical Dental Hygiene I ................................................ 3
DHY 254 Health Promotion .......................................................... 2
DHY 255 Dental Radiology I ........................................................ 2
DHY 256 Dental Radiology I Practice .............................................. 2
DHY 257 Head and Neck Anatomy ................................................ 2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHY 258</td>
<td>Dental Anatomy &amp; Morphology (Didactic)</td>
<td>2</td>
</tr>
<tr>
<td>DHY 259</td>
<td>Dental Anatomy &amp; Morphology (Lab)</td>
<td>1</td>
</tr>
<tr>
<td>DHY 260</td>
<td>Emergency Management</td>
<td>1</td>
</tr>
<tr>
<td>DHY 261</td>
<td>Preventive Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>TECHNICAL SPECIALTY CREDITS</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY COURSES**

The following courses required for Bachelor of Applied Science Degree (B.A.S.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 401</td>
<td>Principles of Research</td>
<td>5</td>
</tr>
<tr>
<td>DHY 110</td>
<td>Head and Neck Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>DHY 300</td>
<td>Clinical Dental Hygiene II</td>
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<tr>
<td>DHY 301</td>
<td>Clinical Dental Hygiene III</td>
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<tr>
<td>DHY 302</td>
<td>Clinical Dental Hygiene IV</td>
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<tr>
<td>DHY 303</td>
<td>Fundamentals of Dental Hygiene II</td>
<td>3</td>
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<tr>
<td>DHY 304</td>
<td>Fundamentals of Dental Hygiene III</td>
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<tr>
<td>DHY 305</td>
<td>Fundamentals of Dental Hygiene IV</td>
<td>2</td>
</tr>
<tr>
<td>DHY 306</td>
<td>Restorative Practice &amp; Materials I (Didactic)</td>
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<tr>
<td>DHY 307</td>
<td>Restorative Practice &amp; Materials I (Lab)</td>
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<td>DHY 308</td>
<td>Restorative Practice &amp; Materials Theory II</td>
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<td>DHY 309</td>
<td>Restorative Practice &amp; Materials II</td>
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<td>DHY 311</td>
<td>Pain Control Anesthesia</td>
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<tr>
<td>DHY 312</td>
<td>Pain Control Anesthesia Practice</td>
<td>2</td>
</tr>
<tr>
<td>DHY 313</td>
<td>Periodontology I</td>
<td>3</td>
</tr>
<tr>
<td>DHY 314</td>
<td>Dental Radiology II</td>
<td>2</td>
</tr>
<tr>
<td>DHY 315</td>
<td>Dental Radiology II Practice</td>
<td>1</td>
</tr>
<tr>
<td>DHY 318</td>
<td>Oral Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DHY 323</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>DHY 391</td>
<td>Community Dental Health I</td>
<td>1</td>
</tr>
<tr>
<td>DHY 400</td>
<td>Advanced Practicum in Dental Hygiene I</td>
<td>8</td>
</tr>
<tr>
<td>DHY 401</td>
<td>Advanced Practicum in Dental Hygiene II</td>
<td>8</td>
</tr>
<tr>
<td>DHY 402</td>
<td>Advanced Practicum in Dental Hygiene III</td>
<td>8</td>
</tr>
<tr>
<td>DHY 405</td>
<td>Principles of Dental Hygiene Practice II</td>
<td>2</td>
</tr>
<tr>
<td>DHY 406</td>
<td>Principles of Dental Hygiene Practice III</td>
<td>1</td>
</tr>
<tr>
<td>DHY 407</td>
<td>Strategies of Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td>DHY 408</td>
<td>Capstone</td>
<td>1</td>
</tr>
<tr>
<td>DHY 409</td>
<td>Ethics and Jurisprudence</td>
<td>2</td>
</tr>
<tr>
<td>DHY 410</td>
<td>Advanced Restorative Practice II</td>
<td>2</td>
</tr>
<tr>
<td>DHY 411</td>
<td>Advanced Restorative Practice III</td>
<td>2</td>
</tr>
<tr>
<td>DHY 412</td>
<td>Advanced Restorative Practice IV</td>
<td>2</td>
</tr>
<tr>
<td>DHY 413</td>
<td>Periodontology II</td>
<td>2</td>
</tr>
<tr>
<td>DHY 414</td>
<td>Selective Populations</td>
<td>1</td>
</tr>
<tr>
<td>DHY 415</td>
<td>Selective Populations Practice</td>
<td>1</td>
</tr>
<tr>
<td>DHY 416</td>
<td>Professional Issues</td>
<td>1</td>
</tr>
<tr>
<td>DHY 419</td>
<td>Community Dental Health II</td>
<td>2</td>
</tr>
<tr>
<td>DHY 420</td>
<td>Community Dental Health III</td>
<td>1</td>
</tr>
<tr>
<td>TECHNICAL SPECIALTY CREDITS</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

195

Total required credits for B.A.S. degree (195 credits) includes prerequisite credits (65 credits total).

Allied Health A.A.S.-T degree awarded at completion of 95 credits (total includes prerequisite credits).

Note: Eligibility for graduation requires a 2.5 GPA in Related Instruction courses and Technical Specialty courses.

**Healthcare Services Management Track**

**Bachelor of Applied Science in Allied Health**

Are you an experienced healthcare professional with an associate’s degree interested in healthcare administration? Seattle Central’s Bachelor of Applied Science (B.A.S.) in Allied Health — Healthcare Services Management program will help you develop the knowledge and skills needed to advance in this in–demand profession.

With this degree, you will be qualified for positions such as healthcare services manager and healthcare administrator. Additionally, this program will prepare you to play critical roles in planning, coordinating and supervising service delivery in a variety of healthcare settings, including:

- Hospitals
- Medical care facilities
- Nursing homes
- Healthcare organizations
- and other health facilities

**PREREQUISITES**

An A.A.S.-T or AAS degree in an allied health field, with at least a 2.5 overall GPA, is required to be accepted into this B.A.S. track. Allied health professionals with at least one (1) year of work experience in the healthcare field are also eligible to apply with an A.A., A.S., A.B., B.A., or B.S. degree from a regionally accredited college or university with at least a 2.5 overall GPA. A minimum of one year of experience working in healthcare within the last five years is required to be accepted into this B.A.S. track.

Applicants must have completed ENGL& 101 with at least a 2.0 and be eligible for (or demonstrate completion of) MATH& 146 or MATH 136 to be accepted into this B.A.S. track.

**TECHNICAL SPECIALTY COURSES**

The following courses must be completed with a grade of at least 2.0.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 303</td>
<td>Accounting for Healthcare Management</td>
<td>5</td>
</tr>
<tr>
<td>AHE 301</td>
<td>Principles of Healthcare Delivery</td>
<td>5</td>
</tr>
<tr>
<td>AHE 330</td>
<td>Information Literacy for Health Sciences</td>
<td>5</td>
</tr>
<tr>
<td>AHE 401</td>
<td>Principles of Research</td>
<td>5</td>
</tr>
<tr>
<td>AHE 426</td>
<td>Leadership and Team Building/ Organizational Dynamics</td>
<td>5</td>
</tr>
<tr>
<td>HSM 322</td>
<td>Human Resources</td>
<td>5</td>
</tr>
<tr>
<td>HSM 325</td>
<td>Financial Management in Healthcare</td>
<td>5</td>
</tr>
<tr>
<td>HSM 451</td>
<td>Healthcare Outcomes and Quality Management</td>
<td>5</td>
</tr>
<tr>
<td>HSM 479</td>
<td>Healthcare Services Management Capstone</td>
<td>5</td>
</tr>
<tr>
<td>HSM 301</td>
<td>Principles of Healthcare Services Management</td>
<td>5</td>
</tr>
</tbody>
</table>

**GENERAL EDUCATION**

The following courses must be completed with a grade of at least 2.0.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 102</td>
<td>Composition II</td>
<td>5</td>
</tr>
</tbody>
</table>
Central Programs of Study

Bachelor of Applied Science in Allied Health

Respiratory Care is an allied health specialty in the treatment and management of patients with cardiopulmonary disorders. The seven-quarter program includes the study of the therapeutic use of medical gases, medications, aerosols, lung drainage, ventilatory support, cardiopulmonary resuscitation, airway management, respiratory disease management and diagnostic testing. Under the direction of the physician, the respiratory care practitioner works with other health professionals to deliver effective health care. The program offers an Associate of Applied Science (A.A.S.) degree and is fully accredited by the Committee on Accreditation for Respiratory Care.

Note: Because the A.A.S. degree may not transfer, students wishing to transfer to a four-year institution should take college transfer English and science courses and see an advisor.

Graduates are eligible for licensure as Respiratory Care Practitioners in Washington state, and are also eligible and prepared for the National Board Registered Therapist credentialing exams. The required 7 hours of HIV/AIDS education is included. New classes begin Fall Quarter only. For advanced placement consideration, contact the division office for specific requirements.

Program courses are under frequent review to maintain industry relevancy. Check with division for current program guidelines.

PREREQUISITES

Prerequisite credits (60 total) are included in the total credits required for degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL &amp; 241</td>
<td>Human Anatomy and Physiology 1</td>
</tr>
<tr>
<td>CHEM &amp; 121</td>
<td>Intro to Chemistry</td>
</tr>
<tr>
<td>CHEM &amp; 122</td>
<td>Introduction to Organic Chemistry</td>
</tr>
</tbody>
</table>

Following can be substituted:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 205</td>
<td>Multicultural Communication</td>
</tr>
</tbody>
</table>

MATH & 146 Introduction to Statistics

Following can be substituted:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 136</td>
<td>Inferential Statistics</td>
</tr>
</tbody>
</table>

PSYC 217 Intro to Probability & Statistics for Psychology

Following can be substituted:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 210</td>
<td>Business &amp; Economic Statistics</td>
</tr>
</tbody>
</table>

Lab Science

Taken from any BIOL or CHEM courses

Humanities course

Natural Science course

Social Science course

Humanities, Social Science or Natural Science course

Including Math or Computer Science course

GENERAL EDUCATION CREDITS 60

ELECTIVES

The following courses must all be at the 100-level or above and be completed with a grade of at least 2.0.

Required elective credits (70) can be a combination of the following:

Allied Health credits (block if transferred) 0-70

Associate degree block transfer credits (if applicable) 0-70

Other academic electives 0-70 credits

Other upper-division AHE, HSM, or ABS classes 0-70 credits

CHED 300 Health Communication

CHED 301 Principles of Community Health

CHED 304 Principles of Higher Education in Allied Health

HSM 412 Law and Ethics in Health Administration

HSM 417 Health Informatics

HSM 434 Strategic Planning and Marketing

HSM 445 Project Management

HSM 499 Special Topics

ELECTIVE CREDITS 70

TOTAL PROGRAM CREDITS 180

Respiratory Care Track - Bachelor of Applied Science in Allied Health

Upon completion of the courses listed below and prerequisites courses (90 credits total), Allied Health Associate of Applied Science - T Degree (A.A.S.-T) can be awarded.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 128</td>
<td>Introduction to Healthcare Practice</td>
</tr>
<tr>
<td>AHE 129</td>
<td>Introduction to Healthcare Applied Practice</td>
</tr>
<tr>
<td>AHE 168</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>AHE 202</td>
<td>Respiratory Care Orientation</td>
</tr>
<tr>
<td>AHE 209</td>
<td>Introduction to Respiratory Care</td>
</tr>
<tr>
<td>AHE 213</td>
<td>Respiratory Care Clinical Assessment</td>
</tr>
<tr>
<td>AHE 215</td>
<td>Basic Pharmacology</td>
</tr>
<tr>
<td>AHE 217</td>
<td>Cardiopulmonary Anatomy and Physiology</td>
</tr>
<tr>
<td>AHE 218</td>
<td>Basic Therapeutic Approaches</td>
</tr>
<tr>
<td>AHE 219</td>
<td>Basic Therapeutic Approaches Equipment and Techni</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Fundamentals of Supervision</td>
</tr>
</tbody>
</table>

Following can be substituted:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 103</td>
<td>Personnel/Human Resource Management</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIALTY CREDITS 30
**Technical Specialty Courses**
The following courses required for Bachelor of Applied Science Degree (B.A.S.):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 330</td>
<td>Information Literacy for Health Sciences</td>
<td>5</td>
</tr>
<tr>
<td>AHE 401</td>
<td>Principles of Research</td>
<td>5</td>
</tr>
<tr>
<td>CHED 304</td>
<td>Principles of Higher Education in Allied Health</td>
<td>5</td>
</tr>
<tr>
<td>RCP 320</td>
<td>Acute Care Clinical I</td>
<td>4</td>
</tr>
<tr>
<td>RCP 323</td>
<td>Pathophysiology for Respiratory Care</td>
<td>2</td>
</tr>
<tr>
<td>RCP 328</td>
<td>Advanced Therapeutic Approaches</td>
<td>4</td>
</tr>
<tr>
<td>RCP 329</td>
<td>Advanced Therapeutic Approaches Equip and Tech</td>
<td>1</td>
</tr>
<tr>
<td>RCP 330</td>
<td>Acute Care Clinical II</td>
<td>6</td>
</tr>
<tr>
<td>RCP 338</td>
<td>Fundamentals of Mechanical Ventilation</td>
<td>4</td>
</tr>
<tr>
<td>RCP 339</td>
<td>Mechanical Ventilation Equipment and Techniques</td>
<td>1</td>
</tr>
<tr>
<td>RCP 340</td>
<td>Adult Critical Care Clinical I</td>
<td>4</td>
</tr>
<tr>
<td>RCP 347</td>
<td>Cardiology for Respiratory Care</td>
<td>2</td>
</tr>
<tr>
<td>RCP 348</td>
<td>Advanced Mechanical Ventilation</td>
<td>2</td>
</tr>
<tr>
<td>RCP 349</td>
<td>Adv Mechanical Ventilation Equipment &amp; Technique</td>
<td>1</td>
</tr>
<tr>
<td>RCP 450</td>
<td>Adult Critical Care Clinical II</td>
<td>6</td>
</tr>
<tr>
<td>RCP 451</td>
<td>Neonatal/Pediatric Pathophysiology</td>
<td>2</td>
</tr>
<tr>
<td>RCP 455</td>
<td>Advanced Pharmacology (Respiratory Care)</td>
<td>2</td>
</tr>
<tr>
<td>RCP 458</td>
<td>Neonatal/Pediatric Respiratory Care</td>
<td>4</td>
</tr>
<tr>
<td>RCP 459</td>
<td>Neonatal/Pediatric Equipment and Techniques</td>
<td>1</td>
</tr>
<tr>
<td>RCP 460</td>
<td>Neonatal/Pediatric Clinical</td>
<td>6</td>
</tr>
<tr>
<td>RCP 463</td>
<td>Advanced Pathophysiology for Respiratory Care</td>
<td>2</td>
</tr>
<tr>
<td>RCP 464</td>
<td>Pulmonary Rehabilitation and Home Care</td>
<td>2</td>
</tr>
<tr>
<td>RCP 467</td>
<td>Advanced Cardiopulmonary Physiology</td>
<td>2</td>
</tr>
<tr>
<td>RCP 468</td>
<td>Adv Cardiopulmonary Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>RCP 469</td>
<td>Diagnostic Equipment and Techniques</td>
<td>1</td>
</tr>
<tr>
<td>RCP 470</td>
<td>Adult Critical Care Clinical III</td>
<td>6</td>
</tr>
<tr>
<td>RCP 472</td>
<td>Advanced Practitioner Exam Review</td>
<td>1</td>
</tr>
<tr>
<td>RCP 476</td>
<td>Advanced Patient Assessment</td>
<td>3</td>
</tr>
<tr>
<td>RCP 479</td>
<td>Senior Capstone Project</td>
<td>4</td>
</tr>
</tbody>
</table>

**Technical Specialty Credits**: 90

**Total Program Credits**: 180

Total required credits for B.A.S. degree (180 credits) includes prerequisite credits (60 credits total).

(Allied Health A.A.S.-T degree awarded at completion of 90 credits - includes prerequisite credits)

*Note: Eligibility for graduation requires a minimum 2.0 GPA in all technical specialty and related instruction courses, including prerequisite courses.*

The Respiratory Care B.A.S. degree track can help you meet the requirements to apply to UW School of Medicine’s MEDEX Northwest Physicians Assistant training program. For more information, email AlliedHealthB.A.S.Central@seattlecolleges.edu.

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**Applied Behavioral Science**

**Applied Behavioral Science Department**

(206) 934-3101

The Bachelor degree in Applied Behavioral Science creates a continuing educational and professional pathway for students with the Associate of Applied Science degree. It is designed specifically for people in the human services professions such as:

- Social services
- Early childhood education/child welfare
- Chemical dependency counseling
- Family support services
- Public/community health
- Prevention and early intervention
- Interpreting/translation services

With the baccalaureate option, students are able to move from short–term certificates and related degrees to further foundational and specialized coursework, creating access to multiple high demand jobs within many areas of applied behavioral sciences.

**Bachelor of Applied Science Degree (B.A.S.)**

**Prerequisites**

Meet a minimum GPA requirement of 2.5.

Have completed a two year degree (such as an A.A.S., A.A.S.-T, A.T.A, A.A.A) in Social and Human Services, Child and Family Studies, Interpreter Training, or a related human services degree.

Be eligible for Math 098 (Intermediate Algebra).

**Technical Specialty Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS 310</td>
<td>Professionalism and Ethical Practice</td>
<td>5</td>
</tr>
<tr>
<td>ABS 320</td>
<td>Applied Social Psychology</td>
<td>5</td>
</tr>
<tr>
<td>ABS 330</td>
<td>Information Literacy and Program Assessment</td>
<td>5</td>
</tr>
<tr>
<td>ABS 340</td>
<td>Applied Environmental Science</td>
<td>5</td>
</tr>
<tr>
<td>ABS 350</td>
<td>Quantitative Principles in Research &amp; Assessment</td>
<td>5</td>
</tr>
<tr>
<td>ABS 360</td>
<td>Public Policy Analysis</td>
<td>5</td>
</tr>
<tr>
<td>ABS 410</td>
<td>Economic &amp; Political Systems-Implications Public</td>
<td>5</td>
</tr>
<tr>
<td>ABS 415</td>
<td>Cross-Cultural Competency in Human Services</td>
<td>5</td>
</tr>
<tr>
<td>ABS 430</td>
<td>Sociology of Families</td>
<td>5</td>
</tr>
<tr>
<td>ABS 495</td>
<td>Senior Capstone Project</td>
<td>5</td>
</tr>
<tr>
<td>ABS 497</td>
<td>Advanced Field Placement I</td>
<td>5</td>
</tr>
<tr>
<td>ABS 498</td>
<td>Advanced Field Placement II</td>
<td>5</td>
</tr>
</tbody>
</table>

**Technical Specialty Credits**: 60
GENERAL EDUCATION
Minimum GPA requirement of 2.0.
CMST& 101 Introduction to Communication ............. 5
ENGL& 101 English Composition ..................... 5
ENGL& 102 Composition II ............................ 5
PSYC& 100 General Psychology ........................ 5
SOC& 101 Introduction to Sociology .................. 5
Lab Science ........................................... 5
Humanities & Arts course ............................. 5
Following can be substituted: Social Science course .... 5
College Level MATH course (e.g, MATH& 107, MATH 136) . 5

GENERAL ELECTION CREDITS 30

HUMAN SERVICES CORE
Minimum GPA requirement of 2.0
Choose required 30 credits from one of the three options below:

HUMAN SERVICES CORE - OPTION 1: SOCIAL/HUMAN SERVICES
SHS 100 Introduction to Human Services ............... 5
SHS 103 Social Welfare Policy ........................ 5
SHS 106 Principles of Interviewing and Counseling ..... 5
SHS 108 Group Dynamics & Counseling ............... 5
SHS 197 Field Placement: Social and Human Services 3
SHS 198 Field Placement: Social and Human Services 5
SHS 199 Field Placement: Social and Human Services 5
OPTION 1 CREDITS 30

HUMAN SERVICES CORE - OPTION 2: EARLY CHILDHOOD/FAMILY STUDIES
CFS 263 Working with Children w/Disabilities .......... 3
ECED& 105 Intro to Early Childhood Ed. ............... 5
ECED& 107 Health, Safety, Nutrition .................. 5
EDUC& 115 Child Development ........................ 5
EDUC& 150 Child, Family, Community ................ 3
ECED& 160 Curriculum Development .................. 5
ECED& 180 Language Lit Dev
-OR-
CFS 215 Math and Science for Young Children ........ 3
ECED& 120 Practicum ................................. 2
OPTION 2 CREDITS 31

HUMAN SERVICES CORE - OPTION 3: INTERPRETING/TRANSLATION
Ethics 5
Cultural Studies (e.g. ASL 125 or ANTH& 206) ......... 5
World Language (e.g. ASL, Spanish, Arabic, Japanese) .. 10
Field Placement ....................................... 10
Following can be substituted:
350 hours of documented translation/interpreting experience

OPTION 3 CREDITS 30

HUMAN SERVICES CORE - OPTION 4: SOCIAL SCIENCE
Eligible courses included would be in subjects such as: Sociology, Psychology, Economics, Political Science, Anthropology, etc that are related to the field of Applied Behavioral Science.
Must meet with Melissa Martinez to determine course eligibility

ELECTIVES
An additional 50 credits of electives is required. These credits will be a combination of courses from the A.A.S. degree, additional courses taken during the A.B.S. degree program including the following A.B.S. elective course options below:

ABS 335 Human Services Practice ..................... 5
ABS 420 Multicultural and Artistic Expression ........ 5

ELECTIVE CREDITS 50

TOTAL PROGRAM CREDITS 180

Information Technology: Networking

Information Technology Programs
(206) 934-3150

The B.A.S. in IT Networking (B.A.S.-ITN) will help students prepare for network related jobs in IT, including computer and network administrators and network systems and security analysts.
The degree will help meet the growing regional demand for employees in advanced certifications or skills, including: Cisco Certified Network Professionals (CCNP); industry certifications in Microsoft SQL and SharePoint; supplemental skills in PERL; and fluency in advanced programming languages, mobile application security, and cloud-based hybrid environments.
Along with these specific skills and certifications, general education in the curriculum will prepare graduates by developing the ability to communicate and build working relationships, solve problems, and plan and structure tasks while allocating time and resources effectively.

Bachelor of Applied Science Degree (B.A.S.)
Associate of Applied Science - T Degree (A.A.S.-T) in Networking (98 credits)

PREREQUISITES
Full-time applicants to the B.A.S.-ITN Program must possess a minimum of an A.A.S.-T degree in Networking from any one of the many options at regional two-year institutions, or from other regionally accredited institutions. Additionally, applicants must have a cumulative grade point average (GPA) of at least 2.0, and a 2.5 or higher GPA in Networking related coursework.
Prior to acceptance into the B.A.S.-ITN, applicants will have completed the following coursework:
Networking Introduction (e.g, NET 120) .................. 5
Cisco I, II, III (CCNA) (e.g. NET 142, NET 144, NET 146) .15
UNIX and Security (e.g. ITC 136, ITC 151) ............ 15
### General Education*

<table>
<thead>
<tr>
<th>Credit Hour</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>General Education*</td>
</tr>
</tbody>
</table>

*A total of 60 will be required for the B.A.S. degree. It is suggested that 30 credits be earned prior to B.A.S. enrollment.

### Technical Specialty Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTI 300</td>
<td>Linux and Enterprise Scripting Technologies</td>
</tr>
<tr>
<td>NTI 310</td>
<td>Linux Applications</td>
</tr>
<tr>
<td>NTI 320</td>
<td>Optimizing and Monitoring of Enterprise Networks</td>
</tr>
<tr>
<td>NTI 340</td>
<td>Enterprise Routing - CCNP 1</td>
</tr>
<tr>
<td>NTI 350</td>
<td>CCNP II – Enterprise Switching</td>
</tr>
<tr>
<td>NTI 360</td>
<td>CCNP III – Enterprise Troubleshooting</td>
</tr>
<tr>
<td>NTI 400</td>
<td>Information Security for the Enterprise</td>
</tr>
<tr>
<td>NTI 410</td>
<td>Network Security for the Enterprise</td>
</tr>
<tr>
<td>NTI 430</td>
<td>Secure Content Management</td>
</tr>
<tr>
<td>NTI 440</td>
<td>Devices and Services Cloud Environment</td>
</tr>
<tr>
<td>NTI 460</td>
<td>Practicum</td>
</tr>
<tr>
<td>NTI 470</td>
<td>Capstone</td>
</tr>
</tbody>
</table>

### General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 330</td>
<td>Information Literacy in IT</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computer Programming</td>
</tr>
</tbody>
</table>

- **Following can be substituted:** higher CSC course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON&amp; 201</td>
<td>Micro Economics</td>
</tr>
</tbody>
</table>

- **Following can be substituted:**
  - ECON& 202 Macro Economics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL&amp; 106</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>POLS&amp; 203</td>
<td>International Relations</td>
</tr>
<tr>
<td>Lab Science</td>
<td>Lab Science</td>
</tr>
</tbody>
</table>

### Total Program Credits

<table>
<thead>
<tr>
<th>Credit Hour</th>
<th>General Education Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>180</td>
<td>TOTAL PROGRAM CREDITS</td>
</tr>
</tbody>
</table>

---

### Continuing Education

(206) 934-5448

Continuing Education offers a variety of non-credit educational opportunities for individuals, organizations, and businesses. It does this through a variety of flexible and innovative educational programs.

**Schedule:** Continuing Education courses are listed in printed quarterly course catalogs and online at www.learnatcentral.org.

### Community Education Classes

(206) 934-5448

Continuing Education classes are focused on lifelong learning needs for personal enrichment. These programs respond to current community needs through seminars, workshops, and classes that are non-credit and may range from a one-evening, three-hour offering to quarter-long classes.

### Professional Education Classes and Certificates

(206) 934-5448

Continuing Education offers a number of short-term certificate programs to help upgrade skills or prepare people for a career change. Certificates are offered in AutoCAD, Data Analysis, Fundamentals of Distilling, Medical Marijuana Consultant, Nutritional Therapy, and TESOL. Visit the website for a complete list.

### Corporate & Customized Contract Training

(206) 934-5448

Business and industry can select from a range of management and employee training programs and development services through corporate and customized contract training offered by all of the colleges. Courses may be held at the employer’s site or at the Seattle Colleges.
Cooperative Education & Service-Learning

seattlecentral.edu/coop

The office of Cooperative Education and Service-Learning provides students with a variety of resources and opportunities to enhance their academic, professional and personal growth, leadership development, and sense of civic responsibility.

Cooperative Education Program
(206) 934-6998

Cooperative Education is an educational program offered to students enrolled in college transfer or workforce education programs. Students are able to earn credit for their jobs (with permission), paid or unpaid internships, volunteer service to the community, and/or international travel/study experiences.

WORK EXPERIENCE/COOPERATIVE EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Range</th>
<th>Total Required Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 197</td>
<td>Work Experience-Allied Health</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>AHE 198</td>
<td>Work Experience-Allied Health</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>AHE 199</td>
<td>Work Experience-Allied Health</td>
<td>1 - 5</td>
<td>2-5</td>
</tr>
<tr>
<td>BIOL 197</td>
<td>Work Experience-Biology</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>BUS 197</td>
<td>Work Experience-Business Occupations</td>
<td>1-15</td>
<td>2-15</td>
</tr>
<tr>
<td>CHEM 197</td>
<td>COOP Work Exp</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>CIS 197</td>
<td>Work Experience-Computer Information Systems</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>CMS 197</td>
<td>Community Service</td>
<td>1-3</td>
<td>2-3</td>
</tr>
<tr>
<td>CMS 198</td>
<td>Community Service</td>
<td>1-3</td>
<td>2-3</td>
</tr>
<tr>
<td>CMS 199</td>
<td>Community Service</td>
<td>1-3</td>
<td>2-3</td>
</tr>
<tr>
<td>COM 197</td>
<td>Work Experience: Film and Video</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>CWE 197</td>
<td>Work Experience-Cooperative Education</td>
<td>1-15</td>
<td>2-15</td>
</tr>
<tr>
<td>CWE 198</td>
<td>Work Experience-Cooperative Education</td>
<td>1-15</td>
<td>2-15</td>
</tr>
<tr>
<td>DES 197</td>
<td>Work Experience-Graphic Design</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>EDUC 197</td>
<td>Work Experience-Education</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>EDUC 198</td>
<td>Work Experience-Education</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>EDUC 199</td>
<td>Work Experience-Education</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>HDC 197</td>
<td>Leadership Practice and Application</td>
<td>3</td>
<td>2-3</td>
</tr>
<tr>
<td>HOS 197</td>
<td>Work Experience-Food and Hospitality</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>HUM 197</td>
<td>Work Experience-Humanities</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>ITL 197</td>
<td>International Cooperative Education</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>ITL 198</td>
<td>International Cooperative Education</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>OPH 197</td>
<td>Work Exp</td>
<td>1-5</td>
<td>2-5</td>
</tr>
<tr>
<td>OPH 198</td>
<td>Ophthalmic Dispensing</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>OPH 199</td>
<td>Ophthalmic Dispensing</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>PHO 197</td>
<td>Work Experience-Photography</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>RCP 196</td>
<td>Work Experience: Respiratory Care</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>RCP 197</td>
<td>Work Experience: Respiratory Care</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>SAL 197</td>
<td>Work Experience-Sales and Marketing</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>SCI 197</td>
<td>Work Experience-Science</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>SHS 197</td>
<td>Field Placement: Social and Human Services</td>
<td>3</td>
<td>2-5</td>
</tr>
<tr>
<td>SSC 197</td>
<td>Work Experience-Social Science</td>
<td>5</td>
<td>2-5</td>
</tr>
<tr>
<td>WCO 197</td>
<td>Work Experience: Wood Construction</td>
<td>15</td>
<td>2-15</td>
</tr>
</tbody>
</table>

Service-Learning

Service-learning integrates community service and academic instruction by focusing on critical reflective thinking and civic responsibility to enhance the learning experience.

The Cooperative Education and Service-Learning Office lists internship, volunteer, and service-learning opportunities as a resource for students and also provides access to organizations that recruit on campus.

Travel/Study Courses
(206) 934-6998
seattlecentral.edu/coop/travel_courses.php

Seattle Central provides students (resident and non-resident) with an opportunity to earn credit for various international travel/study experiences. Students can earn credit for language enhancement, research, or work/internship/volunteer activities. The website lists possible credit courses. Students are charged a per-course fee.
Basic & Transitional Studies Division
(206) 934-4180
seattlecentral.edu/basic

Basic studies courses provide instruction for those who want to improve their English, to improve basic verbal and math skills, to earn a high school diploma or GED in order to get better jobs, to continue their education and prepare for college-level work, or to enter college while still in high school. Each of the programs in this area is designed to meet a particular set of student needs.

5 Bridge to College/ Pre-College

BRIDGE TO COLLEGE PROGRAMS:
- Developmental Education
- English as a Second Language – Advanced Levels
- Concurrent High School / College Programs

PRE-COLLEGE PROGRAMS:
- Adult Basic Education
- ESL – Beginning & Intermediate Levels
- GED Preparation
- HS21+
- High School Completion

Bridge to College Programs

Developmental Education

English, Mathematics and Human Development Courses

Many students entering college or returning after some time away from studies need additional work to prepare for college-level courses. For these students, the Seattle Colleges offer a series of courses in English, mathematics and human development. Placement in one or more of these courses is determined by performance on placement tests required for admission to the specific college program or courses. Courses in this category are those numbered below 100. They are described in the course description sections for English (ENGL), mathematics (MATH) and human development (HDC). For more information contact the Basic & Transitional Studies division counselor at (206) 934-4180.

English as a Second Language

Transitional ESL

Placement in transitional ESL classes (ESL 093-099) is done by the ESL College Success test. These courses prepare students for college-level work with increasing emphasis on note-taking, composition, oral presentation, and class discussion at high levels. Although these classes do not count as credit for college-level work, ESL 093-099 can be covered by financial aid. Tuition for these classes is the same as regular tuition.

For information on more basic ESL classes (levels 1-5), see page 23.

NOTE: International Students should take ESL classes through International Programs, page 27.

Concurrent High School/ College Programs

Running Start
(206) 934-3820
seattlecentral.edu/runstart

Eligible junior and senior high school students can earn high school and college credit simultaneously by taking courses at Seattle Central at reduced or free tuition.

See page 22 for more information.

Pre-College Programs

Adult Basic Education

seattlecentral.edu/basic/abe

Adult Basic Education (ABE) classes are for adults who already know English but wish to improve their basic reading, writing, and math skills. Students can start at a level matching their current skills and progress at their own pace. Classes in basic math and reading, writing and communication skills are designed to help adults become more self-sufficient, improve their job prospects, prepare for high school equivalency options, such as the General Education Development (GED) or qualify for entry into post-secondary education programs. Course descriptions are listed under ABE and/or GED. Classes are non-credit. Tuition is currently $25 per quarter (subject to change).
**High School Completion**

For students who have not completed work for a high school diploma, High School Completion offers the opportunity to earn the diploma through two options: the Standard High School Diploma and the Associate Degree Conversion Diploma. Students working toward a high school diploma should obtain a copy of “Requirements for the High School Diploma” brochure from the Admissions Office for complete information.

See page 24 for details about the diploma options and possible tuition waiver for high school completion.

---

**Ged® Preparation**

Adults may demonstrate they have reached an education level equal to a high school diploma by taking the General Educational Development (Ged) test. Ged preparation helps students improve their reading, writing and math skills before taking the test. The course also covers the science and social studies skills, stresses math for practical problem-solving, English usage, reading comprehension and test-taking skills.

Ability to read at or above eighth grade level or completion of ABE Level 3 is required for students. Students who pass the test earn a Ged certificate, which is accepted by colleges, workforce training programs, unions, and many employers as equivalent to a high school diploma. See course descriptions under Ged. Tuition is $25 per quarter (subject to change).

See page 24 for more information.

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**English as a Second Language (ESL)**

English as a Second Language (ESL) classes, levels 1-5, are offered to help non-native speakers communicate in English and increase their understanding of American culture. Conversation, pronunciation, reading, writing, and grammar are taught through topics important to adult students. These non-credit courses cost $25 per quarter tuition (subject to change). Course descriptions are found under ESL. When students complete ESL level 5, they can move to the Transitional ESL level, ESL 093-099, which concentrate on college-preparation skills.

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**Elearning/Distance Education**

(206) 934-4060
seattlecentral.edu/distance/

The eLearning/Distance Education Office at Seattle Central, now part of the Center for Extended Learning, provides information and support services for students taking online, correspondence, seminar and video courses. Students taking eLearning courses experience the same curriculum, content and challenges as on-campus courses while benefiting from the flexibility of fewer or no campus visits.

See page 25 for information on elearning/distance education options.

---

**High School 21+**

HS21+ is an alternative competency-based diploma for adults age 21 or older to earn the Washington state high school diploma. This program is offered at Washington’s community and technical colleges. Each college has designed their own program; the requirements and pathways are not standardized across the colleges.

Ability to read at or above eighth grade level or completion of ABE Level 3 is required for students. Students who pass the test earn a GED certificate, which is accepted by colleges, workforce training programs, unions, and many employers as equivalent to a high school diploma. See course descriptions under GED. Tuition is $25 per quarter (subject to change).

How do I know if HS21+ at Seattle Central is for me?

- You prefer to earn a diploma versus taking the GED test.
- You are probably only missing a few credits. If you’re missing many credits, this may not be a good option.
- You are 21 or older.
- You are comfortable taking a combination of basic skills classes and college-level courses.

---

**International Programs**

**Institute of English**

(206) 934-3893
intl.seattlecentral.edu/institute-of-english

The Seattle Central Institute of English (SCIE) is a self-supporting intensive academic English program offering a variety of accelerated English as a Second Language courses and related training for international students. Most SCIE students are either preparing to enter U.S. colleges and universities, or are interested in improving English language skills for personal or business use in their home countries.

See page 27 for further information.

---

**Travel/Study Abroad**

(206) 934-6966
seattlecolleges.edu/international/studyabroad.aspx
Worker Retraining Program

(206) 934-3854
seattlecentral.edu/worker-retraining/

Worker retraining at Seattle Central College is a package of services, opportunities, and specialized instructional programs to help candidates return to work as soon as possible. A person may be eligible for Worker Retraining Assistance if he or she:

- Is unemployed and is collecting Washington State Unemployment Benefits
- Has exhausted unemployment benefits in the past four years
- Has been working in the home, experiences a significant loss of income and needs to re-enter the workforce
- Has received a WARN letter
- Has closed a business due to economic downturn
- Is working in a not-in-demand job (along with other criteria)
- Has lost a job because of a disaster
- Separated from the military with an honorable discharge within the last 48 months
- Suffered a loss of more than 50% of household income due to a divorce, separation, or death of a spouse or partner within the last 48 months

**WORKER RETRAINING BENEFITS INCLUDE:**

- Priority registration
- Tuition assistance career planning services
- High wage, high demand training programs
- Tutoring assistance
- Employment Security staff on campus
- Assistance with TAA and CAT/TB paperwork
- Liaison to other agencies, programs and funding

See page 29 for additional information.
Seattle Central College offers degrees and certificates in more than 30 workforce education areas, including several Bachelor of Applied Science degrees. See page 18. These programs, which vary in length from one to seven quarters, are designed to prepare students for careers and/or to expand skills in their career area. Several professional/technical programs offer short-term training certificates; students may build skills and add certifications over time to progress in their fields. Contact the program office for information. Seattle Central College is accredited by the Northwest Commission on Colleges and Universities.

**Allied Health**

**Allied Health / Business / Languages & Cultures Division**

(206) 934-4347

The Associate of Applied Science degree in Allied Health was conceived as a bridge between a transfer degree and vocational certificates. The degree is designed to prepare students to enter the workplace in an Allied Health career with advanced college level skills in math, science and humanities. Graduates are also eligible to transfer into one of Central’s B.A.S. degrees or to another college or university. The goal of this degree is to provide vertical career mobility for students with an Allied Health vocational training certificate or to provide technical skills to those who have general education credits. Those with this degree can enter other Allied Health associate level programs. It provides a link between vocational education and higher education at the baccalaureate level.

Certificate Students (e.g. dental assisting, nursing assistant, medical assistant, and similar programs) will typically have from 30 to 45 credits in a specialty or certificate major. They must have completed Math 107 or 146, Psychology 201, English 101, basic computer skills, and a competency assessment prior to being accepted into the Allied Health associates program. To complete their associate degree in Allied Health, they must complete college distribution requirements and additional credits. Some of these courses may have prerequisites, so check with an advisor.

Students who do not come from a certificate program, must complete college distribution requirements and choose 30 credits from Allied Health/Global Health electives plus other electives to make up 90 credits. Check with you advisor for appropriate electives from Allied Health, Global Health or B.A.S. courses. A student who chooses a career path in public health may alter the curriculum to suit entrance requirements into the UW School of Public Health.

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**Associate of Applied Science-T Degree (A.A.S.-T)**

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 128</td>
<td>Survey of Human Anatomy &amp; Physiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL &amp; 241</td>
<td>Human Anatomy &amp; Physiology 1</td>
<td>5</td>
</tr>
<tr>
<td>BIOL &amp; 242</td>
<td>Human Anatomy &amp; Physiology 2</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition</td>
<td>5</td>
</tr>
<tr>
<td>HUM 105</td>
<td>Interculture Communication</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 107</td>
<td>Math in Society</td>
<td>5</td>
</tr>
<tr>
<td>MATH 136</td>
<td>Inferential Statistics</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 146</td>
<td>Introduction to Stats</td>
<td>5</td>
</tr>
</tbody>
</table>

**General Education/Foundation Science**

Up to 40 additional credits from the General Educational list. See Advising Center for list of approved courses.

**ALLIED HEALTH COURSES**

Total of 30 credits required from either:

- Allied Health Certificate (up to 30 credits transferable)
  - See Advising Center for list of approved programs.

- AND/OR-

- Choose from the options below. Maximum of 11 credits in BUS courses.
  
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 126</td>
<td>Essential Skills in Healthcare</td>
<td>2</td>
</tr>
<tr>
<td>AHE 152</td>
<td>Health Care Provider CPR</td>
<td>1</td>
</tr>
<tr>
<td>AHE 168</td>
<td>Medical Terminology</td>
<td>5</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>BUS &amp; 101</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 103</td>
<td>Personnel/Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 113</td>
<td>Diversity Issues in Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
<tr>
<td>BUS 131</td>
<td>Integrated Communications I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 132</td>
<td>Integrated Communications II</td>
<td>5</td>
</tr>
<tr>
<td>BUS 140</td>
<td>Customer Relations</td>
<td>5</td>
</tr>
<tr>
<td>HEA 125</td>
<td>Health and Wellness</td>
<td>5</td>
</tr>
<tr>
<td>HEA 150</td>
<td>Health and Human Sexuality</td>
<td>5</td>
</tr>
<tr>
<td>HEA 160</td>
<td>Human Wellness and Fitness</td>
<td>5</td>
</tr>
<tr>
<td>HEA 225</td>
<td>Global Health</td>
<td>5</td>
</tr>
<tr>
<td>HEA 226</td>
<td>Advanced Global Health Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

90
Care Navigation and Coordination Short-Term Certificate

The Care Navigation and Coordination program is designed to prepare students to assist clients and patients in navigating the social services and healthcare systems, and to be strong members of teams providing coordinated, client and patient-centered care. Students will learn about factors affecting patients such as chronic disease, behavioral health, wellness and patient activation and engagement as well as communication strategies such as patient/client coaching, motivational interviewing, and health literacy.

TECHNICAL SPECIALTY COURSES
SHS 121 Introduction to Care Navigation .......................... 5
SHS 123 Advanced Care Coordination and Navigation . . . . 5
SHS 122 Care Navigation: Systems of Care .......................... 5
TOTAL PROGRAM CREDITS 15

Central Supply Processing Short-Term Certificate

This certification, qualifies you to become a certified Central Supply & Instrument Technician. Medical staff depend on these technicians to provide them with the correct tools in order to administer the highest levels of patient care. They work in hospitals and clinics, sterilizing and packaging surgical instruments and maintaining supply inventories.

PREREQUISITE
Permission

TECHNICAL SPECIALTY COURSES
AHE 126 Essential Skills in Healthcare, ....................... 2
AHE 140 Central Supply/Instrument Technician ......... 10
TOTAL PROGRAM CREDITS 12

Dental Auxiliary (Expanded Function) Short-Term Certificate

The Expanded Function Dental Auxiliary (EFDA) are used primarily in Community Health Clinics to increase the delivery of restorations, allowing dentists to increase their productivity in delivering these services to the community. Currently, registered dental hygiene practitioners are licensed to perform these restorative duties; however, they are underutilized in this capacity because traditional periodontal care is in high demand. Only about 30% of registered dental hygienists are performing restorative functions.

TECHNICAL SPECIALTY COURSES
EFDA 100 Procedures I ........................................ 1
EFDA 101 Restorative Lab I ................................. 3
EFDA 110 Dental Coronal Anatomy ....................... 2
EFDA 111 Dental Materials and Technique ............... 2
EFDA 200 Procedures II .................................. 1
EFDA 201 Restorative Clinic II ............................. 4
EFDA 202 WRED Preparation ........................... 1
EFDA 212 Ethics and Jurisprudence ..................... 1
TOTAL PROGRAM CREDITS 15

Apparel Design & Development

Business, Information Technologies & Creative Arts Division
(206) 934-3830

The School of Apparel Design & Development at Central is the most technically oriented design program in the region, with a track record for training the region’s best fashion design talent. The comprehensive curriculum is aligned to current apparel industry trends to offer relevant technical and creative skills to prepare students to succeed in a competitive industry. Students earn an Associate of Applied Science degree upon completion of 93 credits of course work over six quarters.

Associate of Applied Science Degree (A.A.S.)

PREREQUISITES
APPRL 096 AD&D Skill Development 1 .................. 2
APPRL 098 AD&D Skill Development 2 .................. 2
APPRL 100 AD&D Skill Development 3 .................. 2

TECHNICAL SPECIALTY COURSES
APPRL 101 Construction 1 - Professional Techniques . . . . 4
APPRL 102 Construction 2 - Professional Techniques . . . . 4
APPRL 103 Construction 3 - Professional Techniques . . . . 4
APPRL 111 Patternmaking 1 - Flat Pattern and Drafting . . 4
APPRL 112 Patternmaking 2 - Draping ..................... 4
APPRL 113 Patternmaking 3 - Design by Flat Patternmaking 4
APPRL 114 Patternmaking 4 - Pattern Alteration for Fit .... 2
APPRL 130 Apparel Manufacturing ........................ 2
APPRL 131 Business Practices in Fashion ................ 3
APPRL 141 Design 1 - Principles of Design .............. 2
APPRL 142 Design 2 - Fabric Science and Textiles ....... 2
APPRL 143 Design 3 - Color and Palettes ............... 2
APPRL 151 Computer Applications for Apparel Design 1 . 3
APPRL 152 Computer Applications for Apparel Design 2 . 3
APPRL 197 Work Experience in Apparel Design ........ 5
Credit range: 1-8 (5 required)
Class meets ‘Related Instruction’ requirement.

APPRL 201 Ready-To-Wear Construction ............... 4
APPRL 202 Active Sportswear Construction .......... 4
APPRL 211 Pattern Design for Ready-To-Wear .......... 4
APPRL 212 Pattern Design for Active Sportswear .... 4
APPRL 221 Pattern Grading ............................. 4
APPRL 222 Computerized Pattern Grading .......... 4
APPRL 230 Portfolio and Resume Development .......... 4
Credit range: 1-8 (5 required)
Class meets ‘Related Instruction’ requirement.

APPRL 241 Design 4 - Print and Pattern .......... 4
APPRL 242 Design 5 - Line Design ..................... 4
APPRL 260 Fashion History ........................... 3
APPRL 270 Final Line Design and Development .... 8

RELATED INSTRUCTION
APPRL 298 Apparel Design Special Topics .............. 5
Credit range: 1-5

TOTAL PROGRAM CREDITS 95
Entrepreneurship Short-Term Certificate

The Entrepreneurship Certificate targets students who are interested in applying the ideas and fundamentals (skill sets) of successful entrepreneurs to a variety of organization structures. These include starting a new business, working for an early stage start-up, or implementing a new initiative in an existing organization (e.g. corporate, government, non-profit).

**TECHNICAL SPECIALTY COURSES**
- BUS 122 the Entrepreneur Toolkit ................ 3
- BUS 129 Small Business Accounting .............. 5
- BUS 134 Small Business Start-Up .................. 3
- BUS 155 Small Business Marketing ................ 3
- BUS 185 Small Business Management ............. 5

**TOTAL PROGRAM CREDITS**  19

Small Business Accounting Short-Term Certificate

The Small Business Accounting Certificate emphasizes practical accounting and bookkeeping skills that will prepare the student for entry level positions related to small business accounting and to support the accounting needs of the small business entrepreneur. The completion of the three course series will also prepare students for the Certified Bookkeeper exam.

**PROGRAM CERTIFICATE OUTCOMES:**
- Apply industry standard accounting cycle and budgets
- Prepare financial statements with knowledge of commercial accounting software
- Implement internal procedures and accurate records to address rules and regulations related to taxes, audits, regulatory laws

**TECHNICAL SPECIALTY COURSES**
- BTM 231 Applied Accounting I ....................... 5
- BTM 232 Applied Accounting II ...................... 5
- BTM 233 Applied Accounting III ..................... 5

**TOTAL PROGRAM CREDITS**  15

Certification

**PREREQUISITES**
- MATH 081, ENGL 096 or test out may substituted for prerequisite courses listed. Students who enroll in all 11 credits, will be advised to take a specific HDC course to support learning.
- BTM 098 Computing Essentials ...................... 3
- BTM 108 Applied Business Math I ................. 3
- BTM 109 Business Communications I ............. 5

**TECHNICAL SPECIALTY COURSES**
- All courses require BTM 098 or test out.
- BTM 100 Orientation and Career Exploration ....... 2
- BTM 111 Business Applications I ................... 5
- BTM 112 Business Applications II .................. 5
- BTM 113 Business Applications III ............... 5
- BTM 118 Applied Business Math II ................ 5

Following can be substituted: BTM 108, MATH 081 or test out

- BTM 119 Business Communications II ............. 5

Following can be substituted: BTM 109, ENGL 096 or test out

- BTM 197 Work Experience: Business Technology Management ........................................ 5
- BTM 120 Customer Relations Management ........ 5
- BTM 122 Professional Development ................. 5

**TECHNICAL SPECIALTY CREDITS**  37-40

**RELATED INSTRUCTION**
- BTM 197 Work Experience: Business Technology Management ........................................ 5
  Internship is Optional. Total 3-5 credits required.
- Elective .............................................. 20
  Based on chosen track, students will either take an additional 15-20 credits of electives within the BTM Program or take 10-15 credits within the BTM Program and 5 unrestricted elective credits.

**TOTAL PROGRAM CREDITS** AT LEAST 90

Associate of Applied Science Degree (A.A.S.)

**PREREQUISITES**
- MATH 081, ENGL 096 or test out may substitute for prerequisite courses listed. Students who enroll in all 11 credits, will be advised to take a specific HDC course to support learning.
- BTM 098 Computing Essentials ...................... 3
- BTM 108 Applied Business Math I ................. 3
- BTM 109 Business Communications I ............. 5

**TECHNICAL SPECIALTY COURSES**
- All courses require BTM 098 or test out.
- BTM 100 Orientation and Career Exploration ....... 2
- BTM 111 Business Applications I ................... 5
- BTM 112 Business Applications II .................. 5
- BTM 113 Business Applications III ............... 5
- BTM 118 Applied Business Math II ................ 5

Following can be substituted: BTM 108, MATH 081 or test out

- BTM 197 Work Experience: Business Technology Management ........................................ 5
- BTM 120 Customer Relations Management ........ 5
- BTM 122 Professional Development ................. 5

**TECHNICAL SPECIALTY CREDITS**  37-40

**RELATED INSTRUCTION**
- BTM 197 Work Experience: Business Technology Management ........................................ 5
  Internship is Optional. Total 3-5 credits required.
- Elective .............................................. 20
  Based on chosen track, students will either take an additional 15-20 credits of electives within the BTM Program or take 10-15 credits within the BTM Program and 5 unrestricted elective credits.

**TOTAL PROGRAM CREDITS** AT LEAST 90
<table>
<thead>
<tr>
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<tr>
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<tr>
<td>BTM 120</td>
<td>Customer Relations Management</td>
<td>5</td>
</tr>
<tr>
<td>BTM 122</td>
<td>Professional Development</td>
<td>5</td>
</tr>
<tr>
<td>BTM 197</td>
<td>Work Experience: Business Technology Management</td>
<td>5</td>
</tr>
<tr>
<td>Elective</td>
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<td>20</td>
</tr>
</tbody>
</table>

**Business Technology Management Tracks**

Choose from two of the following tracks that range from 15-25 credits each.

**BUSINESS PROCESS MANAGEMENT TRACK**
- BTM 260 Project Management .... 5
- BTM 265 Operations Management ... 5
- BTM 268 Content Management - SharePoint ... 5

**BUSINESS PROCESS MGT TRACK CREDITS** 15

**BUSINESS ANALYSIS MANAGEMENT TRACK**
- BTM 240 Applied Database Design ... 5
- BTM 245 Business Analysis Planning ... 5
- BTM 248 Data Analysis - Advanced Excel ... 5

**BUSINESS ANALYSIS MGT TRACK CREDITS** 15

**APPLIED ACCOUNTING TRACK**
- BTM 231 Applied Accounting I ... 5
- BTM 232 Applied Accounting II ... 5
- BTM 233 Applied Accounting III ... 5
- BTM 234 Bookkeeping Test Prep ... 1

**APPLIED ACCOUNTING TRACK CREDITS** 15-16

**USER SUPPORT TRACK**
- BTM 240 Applied Database Design ... 5
- BTM 275 Computer Support ... 4
- ITC 134 Computer Operating Systems ... 5
- ITC 140 Introduction to Computer Hardware ... 5
- NET 120 Network Essentials - Comptia Network + ... 5

**USER SUPPORT TRACK CREDITS** 25

**OFFICE MANAGEMENT TRACK**
- BTM 236 Leadership and Supervision ... 5
- BTM 237 Human Resource Management ... 3
- BTM 250 RIM Management ... 5
- BTM 278 Organizational Behavior ... 5

**OFFICE MANAGEMENT TRACK CREDITS** 20

**ENTREPRENEURSHIP TRACK**
- BTM 225 Marketing Fundamentals ... 5
- BTM 226 Small Business Startup ... 3
- BTM 227 Entrepreneurship Toolkit ... 3
- BTM 228 Small Business Management ... 5
- BTM 231 Applied Accounting I ... 5

**ENTREPRENEURSHIP TRACK CREDITS** 21

**ACCOUNTING ASSISTANT TRACK**
- ACCT& 202 Principles of Accounting II ... 5
- ACCT& 203 Principles of Accounting III ... 5
- BTM 231 Applied Accounting I ... 5

**ACCOUNTING ASSISTANT TRACK CREDITS** 25

**TOTAL PROGRAM CREDITS** 90-107

**Cisco Certified Network Professional (CCNP) Short-Term Certificate**

Students work through the Cisco CCNP curriculum to earn a college certificate and be Cisco certification ready. Applying Cisco coursework to industry, this certificate validates the ability to plan, implement, and verify local and wide-area enterprise networks. This foundational CCNP curriculum prepares administrators for additional variants that support advanced troubleshooting, provisioning for the cloud, advanced security, and voice, wireless and video solutions. The CCNP Routing and Switching certification is appropriate for those with a CCNA and/or a year of networking experience.

**PROGRAM CERTIFICATE OUTCOMES:**
- Plan and manage multiple projects, both individually and as a team member
- Explain and implement network industry standards such as: the OSI model; Routing protocols, Address Resolution, and Reverse Address Resolution Protocols; IP Addresses and Sub netting; and MAC addressing
- Apply industry standard techniques for troubleshooting, collecting, analyzing, and optimizing data within an enterprise network infrastructure.

**TECHNICAL SPECIALTY COURSES**
- NTI 350 Enterprise Switching - CCNP 2 ... 5
- NTI 360 Enterprise Troubleshooting - CCNP 3 ... 5
- NTI 340 Enterprise Routing - CCNP 1 ... 5

**TOTAL PROGRAM CREDITS** 15
Chemical Dependency Specialist
Social & Human Services / Child & Family Studies  
(206) 934-6900
The Chemical Dependency Specialist Program provides training for those interested in working with those affected by addiction to alcohol and other drugs. The program meets Washington State educational requirements for Chemical Dependency Professional certification. State requirements include a minimum A.A.S. degree and 45 credits of chemical dependency specific curriculum (WAC 246-811-030). Additional Washington State Department of Health requirements must be satisfied to obtain certification. Consult the division counselor and/or the Washington State Department of Health before enrolling.
Students with a higher level of formal education may also obtain the 45 credits of chemical dependency curriculum through the Chemical Dependency Specialist Program. A Washington State background check may be required for Field Practicum. A 2.0 is required in all Chemical Dependency certificate courses.

Certificate

PREREQUISITES
Additional courses may be needed to meet state certification requirements. Consult the division counselor before enrolling.
Eligibility for the following:
ENGL& 101 English Composition ................... 5
MATH 084 Algebra I ........................... 5
CORE COURSES
SHS 106 Principles of Interviewing and Counseling .... 5
SHS 108 Group Dynamics & Counseling** ............. 5
TECHNICAL SPECIALTY COURSES
SHS 150 HIV/AIDS Brief Risk Intervention** ........... 1
SHS 210 Intro to Diversity in Human Services Practice** . 3
SHS 215 Adolescent Development and Treatment** .... 3
SHS 231 Pharmacology of Addictions** .................. 5
SHS 232 Chemical Dependency and the Family** .......... 3
SHS 233 Chemical Dependency Counseling** ............. 5
SHS 235 Introduction to Chemical Dependency** ........ 5
SHS 270 Ethics in Human Services and Chemical Dependency** .............. 5
SHS 280 Chemical Dependency Case Management** .... 3
SHS 296 Special Topics .................................. 1
1-3 Human Services Workshop credits required.  
SHS 210 and SHS 215 can be taken as a  
SHS 296 workshop.

**Course meets current minimum state requirements for registration as Chemical Dependency Counselors with the Department of Health.

FIELD PLACEMENT COURSES
CDS 197 Field Practicum: Chemical Dependency .......... 3
CDS 198 Field Practicum: Chemical Dependency .......... 3
CDS 199 Field Practicum: Chemical Dependency .......... 4

GENERAL EDUCATION COURSES
ENGL& 101 English Composition .......................... 5
PSYC& 100 General Psychology ........................... 5
PSYC& 200 Lifespan Psychology ........................... 5

Following can be substituted:
PSYC 207 Developmental Psychology [Adolescent] .... 5

TOTAL PROGRAM CREDITS 67-69
Note: Eligibility for graduation requires a minimum 2.0 GPA in all required technical specialty and related instruction courses.
Certification as a Chemical Dependency Professional with Washington State also requires an associate’s degree or its academic equivalent in any area, and 2,500 clock hours of supervised clinical work.

Commercial Photography
Business, Information Technologies & Creative Arts Division  
(206) 934-3830
The Commercial Photography program prepares committed students for careers as professional image-makers. Centered on digital photography, the program places emphasis on individual attention in a supportive learning environment with state-of-the-art facilities and equipment. This rigorous program assists students in realizing their creative potential and professional direction while providing technical and business skills necessary to earn a living. Students graduate with marketable portfolio(s), web presence, and business and marketing plans, prepared to succeed in a changing and competitive profession.
At this time the program is under revision. Please contact the division office for current information.

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES
PHO 111 Digital Capture Techniques ..................... 3.5
PHO 112 Lighting Techniques I ............................. 3.5
PHO 113 Audio Production I ................................. 3.5
PHO 121 Digital Imaging I .................................. 3.5
PHO 122 Lighting Techniques II ............................. 3.5
PHO 123 Video Production I ................................ 3.5
PHO 131 Digital Imaging II .................................. 3.5
PHO 132 Location Techniques ............................... 3.5
PHO 133 Video Production II ................................. 3.5
PHO 141 Survey of Photography ............................ 3
PHO 142 Digital Imaging ..................................... 4
PHO 143 Digital Media Production .......................... 3
PHO 197 Work Experience-Photography ................ 5

Credit range: 1-5  
Total required credits for PHO 197: 1

CDS 197 Field Practicum: Chemical Dependency .......... 3
CDS 198 Field Practicum: Chemical Dependency .......... 3
CDS 199 Field Practicum: Chemical Dependency .......... 4
### Professional/Technical Programs

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<td>Conceptual Development</td>
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<td>PHO 234</td>
<td>Professional Business Practices I</td>
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<td>PHO 235</td>
<td>Professional Business Practices II</td>
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<td>PHO 244</td>
<td>Visual Narrative</td>
<td>3</td>
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<td>PHO 245</td>
<td>New Media</td>
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<td>PHO 254</td>
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### Related Instruction

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<td>NME 130</td>
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**TOTAL PROGRAM CREDITS**: 103

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### Culinary Arts

**Seattle Culinary Academy**

**Hospitality & Culinary Arts Division**

(206) 934-5425

The Culinary Arts program is a six-quarter (certificate) or seven-quarter (A.A.S. degree) course of study. The curriculum builds on classical techniques by integrating the modern cooking styles and methods of a variety of international cuisines, as well as seasonal Northwest cooking. Our focus is on sustainable principles and practices in order to teach our students about their impact on and responsibility for the environment and society. This education is enhanced by our campus greenhouse and Skagit Valley farm curricula.

Students learn to prepare appetizers, soups, sauces, salads, entrées, vegetables and starches, breads, pastries and desserts. They also learn to identify and fabricate meat, poultry and fish. In addition to cooking and pastry techniques, the program covers sanitation, nutrition, management, purchasing, costing, menu development, as well as food and wine pairing.

Seattle Central’s Culinary Arts program meets the needs of those new to food preparation as well as those who have industry experience and wish to develop a broader range of skills. Many of our students have a degree in another field and wish to make a career change.

Students may enter the program Fall, Winter or Spring Quarters. The Associate of Applied Science (A.A.S.) degree may be granted with the completion of 16 additional elective credits. A cumulative GPA of 2.0 or higher in all core and related instructional courses is required to attain a Culinary Arts Certificate and/or A.A.S. degree.

The Seattle Culinary Academy's certificate programs are accredited by the American Culinary Federation Education Foundation’s Accrediting Commission and have received exemplary status.

### Certificate

**PREREQUISITES**

<table>
<thead>
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<th>Course</th>
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<td>ENGL101</td>
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**HOS 150** Measurements and Meanings .................. 2

Following can be substituted: college level math

- OR -

<table>
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### Technical Specialty Courses

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<td>Restaurant Baking: Theory</td>
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<td>BAK 115</td>
<td>Restaurant Baking: Practicum</td>
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<td>BAK 116</td>
<td>Fine Dining Baking: Practicum</td>
<td>1</td>
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<td>BAK 117</td>
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<tr>
<td>CUL 101</td>
<td>Food Theory I</td>
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<td>CUL 104</td>
<td>Food Theory IV</td>
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<td>CUL 111</td>
<td>Introduction to Professional Cooking: Practicum</td>
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<td>CUL 112</td>
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<td>CUL 113</td>
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<td>CUL 114</td>
<td>International Cooking: Practicum</td>
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<td>CUL 120</td>
<td>Introduction to Wine</td>
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<td>CUL 151</td>
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<td>CUL 152</td>
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<td>Functions of Management</td>
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**TOTAL PROGRAM CREDITS**: 102

**Note**: Certain courses require concurrent enrollment.

Please check under culinary course descriptions for specifics.
Associate of Applied Science Degree (A.A.S.)

Completion of Certificate Requirements ................. 102

PREREQUISITES

ENGL 105 Applied Composition ..................................... 3
  Following can be substituted:
  ENGL& 101 English Composition .................................... 5
HOS 150 Measurements and Meanings ... 2
  Following can be substituted: college level math
  -OR-
  MATH 110 App Math for Technician ................................ 5

TECHNICAL SPECIALTY COURSES

BAK 105 Restaurant Baking: Theory ......................... 1.5
BAK 115 Restaurant Baking: Practicum ...................... 1
BAK 116 Fine Dining Baking: Practicum .................... 1
BAK 117 Introduction to Cheese Making ..................... 1
CUL 101 Food Theory I ............................................. 6
CUL 102 Food Theory II ........................................... 5
CUL 103 Food Theory III ........................................... 4
CUL 104 Food Theory IV ........................................... 6
CUL 111 Introduction to Professional Cooking: Practicum ... .6
CUL 112 Quantity Cooking: Practum ......................... .8
CUL 113 Restaurant Cooking: Practicum .................... .8
CUL 114 International Cooking: Practicum .................. .8
CUL 120 Introduction to Wine ..................................... 1
CUL 151 Sustainable Food Systems Practices I ............. .1
CUL 152 Sustainable Food Systems Practices II ............. .1
CUL 153 Sustainable Food Systems Practices III .......... .1
CUL 205 Advanced Culinary Theory ......................... .1
CUL 215 Advanced Culinary Practices ....................... 4.5
CUL 251 Buffet Catering & Garde Manger: Theory ....... .4
CUL 255 Buffet Cater/Garde Manger: Practicum ........... .8
HOS 101 Customer Service Practicum I .................... 1
HOS 102 Customer Service Practicum II .................... 1
HOS 103 Customer Service Practicum III ................... 1
HOS 104 Customer Service Practicum IV ................... 1
HOS 108 Dining Room and Kitchen Management .......... 4
HOS 110 Principles of Sanitation .............................. 3
HOS 111 Introduction to Customer Service: Theory ... 1
HOS 122 Purchasing and Inventory: Theory ................. 1
HOS 123 Food Costing Principles and Application ....... 1
HOS 124 Computerized Menu Planning ....................... 2
HOS 201 Functions of Management ............................ 2

RELATED INSTRUCTION

BIOL 103 Nutrition for Food Service Professionals ....... 3
MIC 102 Using Computers I ...................................... 1
  MIC 102E Computer Lab Survival Skills
PSYC 240 Psychology of Human Relations .................. 3

GENERAL EDUCATION ELECTIVES

CSC course ......................................................... 4
  Any humanities, social sciences, natural science of CSC class.

ALLIED SUPPORT ELECTIVES

Select 12 credits from any of the following:

CUL 299 Independent Projects/Culinary Arts ............... 5
BUS course ...................................................... 5
CSC course ...................................................... 5
MIC course ...................................................... 5
College Transfer course ......................................... 5

ALLIED SUPPORT CREDITS 12
TOTAL PROGRAM CREDITS 117

Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES

BAK 105 Restaurant Baking: Theory ......................... 1.5
BAK 115 Restaurant Baking: Practicum ...................... 1
BAK 116 Fine Dining Baking: Practicum .................... 1
BAK 117 Introduction to Cheese Making ..................... 1
BIOL 103 Nutrition for Food Service Professionals ....... 3
CUL 101 Food Theory I ............................................. 6
CUL 102 Food Theory II ........................................... 5
CUL 103 Food Theory III ........................................... 4
CUL 104 Food Theory IV ........................................... 6
CUL 111 Introduction to Professional Cooking: Practicum .......... 6
CUL 112 Quantity Cooking: Practum ......................... .8
CUL 113 Restaurant Cooking: Practicum .................... .8
CUL 114 International Cooking: Practicum .................. .8
CUL 120 Introduction to Wine ..................................... 1
CUL 151 Sustainable Food Systems Practices I ............. .1
CUL 152 Sustainable Food Systems Practices II ............. .1
CUL 153 Sustainable Food Systems Practices III .......... .1
CUL 205 Advanced Culinary Theory ......................... .1
CUL 215 Advanced Culinary Practices ....................... 4.5
CUL 251 Buffet Catering & Garde Manger: Theory ....... .4
CUL 255 Buffet Cater/Garde Manger: Practicum ........... .8
HOS 101 Customer Service Practicum I .................... 1
HOS 102 Customer Service Practicum II .................... 1
HOS 103 Customer Service Practicum III ................... 1
HOS 104 Customer Service Practicum IV ................... 1
HOS 108 Dining Room and Kitchen Management .......... 4
HOS 110 Principles of Sanitation .............................. 3
HOS 111 Introduction to Customer Service: Theory ... 1
HOS 122 Purchasing and Inventory: Theory ................. 1
HOS 123 Food Costing Principles and Application ....... 1
HOS 124 Computerized Menu Planning ....................... 2
HOS 201 Functions of Management ............................ 2
MIC 102 Using Computers I ...................................... 1

TECHNICAL SPECIALTY CREDITS 74.5
**RELATED INSTRUCTION**

Total of 20 credits is derived from all three Related Instruction areas.

- **ENGL& 101** English Composition ........................................... 5

**RELATED INSTRUCTION - QUANTITATIVE SKILLS**

College-level Math with MATH 098 prereq.
Choose 5 credits (1 course) from the following:
- **MATH& 107** Math in Society ............................................. 5
- **MATH& 146** Introduction to Statistics ................................. 5

TOTAL QUANTITATIVE SKILLS CREDITS 5

**RELATED INSTRUCTION - SCIENCE, SOCIAL OR HUMAN**

Choose 10 credits (2 courses) from the following:
- **ANTH& 206** Cultural Anthropology ........................................ 5
- **ANTH 275** Medical Anthropology ........................................ 5
- **BIOL& 160** General Biology w/Lab ........................................ 5
- **CHEM& 121** Intro to Chemistry ........................................... 5
- **CMST& 101** Introduction to Communication .......................... 5
- **HUM 105** Interculture Communication ................................. 5
- **NTR 150** Human Nutrition ................................................ 5
- **PSYC& 100** General Psychology ......................................... 5

SCIENCE, SOCIAL OR HUMAN CREDITS 10

TOTAL PROGRAM CREDITS 119

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**Specialty Desserts & Breads**

Specialty Desserts & Breads program features comprehensive “hands on” and step-by-step training to prepare students to be professional bakers or pastry chefs.

Learn to create rustic artisan breads and doughs, plated desserts, decorative cakes, and mouthwatering pastries.

Explore European specialties such as tarts, mousses, truffles, and petit fours. Discover the fine art of wedding cakes and cake decorating. Learn chocolate work with demonstrations on pulled and blown sugar, intricate decoration, and showpieces.

Classroom theory instruction includes “hands-on” experience in how to serve breads and desserts for two on-campus restaurants and in our pastry shop.

Sustainable practices are integrated throughout the program, especially in food preservation and cheese production courses. Learn the value of buying seasonally and locally storing the bounties of the summer harvest and purchasing milk from local dairies.

The Specialty Desserts & Breads certificate is accredited by the American Culinary Federation Education Foundation’s Accrediting Commission and received exemplary status.

Specialty Desserts & Breads is a five-quarter certificate program. Students may enter the program Fall, Winter or Spring Quarters. The Associate of Applied Science (A.A.S.) degree can be earned with the completion of 16 additional elective credits. A cumulative GPA of 2.0 or higher in all core and related instructional courses is required to attain a Culinary Arts Certificate and/or A.A.S. degree.

**PREREQUISITES**

- **ENGL 105** Applied Composition ........................................ 3
  - Following can be substituted: 
    - ENGL& 101 English Composition ........................................ 5
- **MATH 111** Applied Mathematics I ..................................... 5
  - Following can be substituted: college level math
  - OR
  - **MATH 110** App Math for Technician ................................ 5

**TECHNICAL SPECIALTY COURSES**

- **BAK 101** Intro to Desserts & Breads: Theory ...................... 4
- **BAK 102** Bread and Food Preservation ............................. 3
- **BAK 103** Science and Practice of Baking with Chocolate .......... 4
- **BAK 111** Introduction to Desserts & Breads: Practicum .......... 6
- **BAK 112** Beginning Desserts and Breads: Practicum ............ 8
- **BAK 113** Intermediate Desserts and Breads: Practicum ........ 8
- **BAK 123** Adv Buff. Desserts/Wed Cakes/Preservation-Theory ...... 2
- **BAK 124** Adv. Buffet Desserts/Wedding Cakes/Preservation ....... 8
- **BAK 125** Advanced Desserts and Breads: Practicum ............. 8
- **BAK 126** Advanced Food Preservation .............................. 3
- **CUL 106** Introduction to Culinary Arts: Theory ................... 1.5
- **CUL 116** Introduction to Culinary Arts: Practicum ................ 1
- **CUL 120** Introduction to Wine ........................................... 1
- **CUL 151** Sustainable Food Systems Practices I .................... 1
- **CUL 152** Sustainable Food Systems Practices II ................. 1
- **CUL 153** Sustainable Food Systems Practices III ............... 1
- **HOS 101** Customer Service Practicum I ............................. 1
- **HOS 102** Customer Service Practicum II ............................ 1
- **HOS 105** Customer Service for Specialty Desserts Breads ....... 1
- **HOS 110** Principles of Sanitation ..................................... 3
- **HOS 122** Purchasing and Inventory: Theory ........................ 1
- **HOS 123** Food Costing Principles and Application ............... 1
- **HOS 201** Functions of Management .................................. 2

TECHNICAL SPECIALTY CREDITS 74.5

**RELATED INSTRUCTION**

- **BIOL 103** Nutrition for Food Service Professionals ............. 3
- **MIC 102** Using Computers I ............................................. 1
  - MIC 102E Computer Lab Survival Skills
- **PSYC 240** Psychology of Human Relations ....................... 3

TOTAL PROGRAM CREDITS 77.5
### Specialty Desserts & Breads
#### Associate of Applied Science Degree (A.A.S.)

Completion of Certificate Requirements: 77.5 credits

**PREREQUISITES**

<table>
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*Following can be substituted:*

- ENGL& 101 English Composition ................. 5
- MATH 111 Applied Mathematics I ............... 5

*Following can be substituted:*

- MATH 110 App Math for Technician ............... 5
  or college level math

**TECHNICAL SPECIALTY COURSES**

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**TECHNICAL SPECIALTY CREDITS** 70.5

**RELATED INSTRUCTION**

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<td>PSYC 240</td>
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**GENERAL ELECTIVES**

Choose 4 credits from any of the following:

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<td>CSC course</td>
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  or Natural Science of CSC class

**GENERAL ELECTIVE CREDITS** 15

**ALLIED SUPPORT ELECTIVES**

Choose 12 credits from any of the following:

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<td>College Transfer course</td>
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**ALLIED SUPPORT ELECTIVE CREDITS** 12

**TOTAL PROGRAM CREDITS** 93.5

---

**Specialty Desserts & Breads - T Degree (A.A.S.-T)**

**TECHNICAL SPECIALTY COURSES**

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<tr>
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**TECHNICAL SPECIALTY CREDITS** 74.5

Total of 20 credits from all three related instruction areas:

**RELATED INSTRUCTION**

<table>
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<th>Course</th>
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<tbody>
<tr>
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**RELATED INSTRUCTION - QUANTITATIVE SKILLS**

College-level Math with MATH 098 prereq.

Choose 1 course listed below:

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<th>Course</th>
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<td>MATH 107</td>
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<td>MATH 146</td>
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</table>

**QUANTITATIVE SKILLS CREDITS** 5
RELATED INSTRUCTION - SCIENCE, SOCIAL OR HUMAN

Choose 2 from the following:

ANTH & 206 Cultural Anthropology .................. 5
BIOL & 160 General Biology w/Lab .................. 5
CHEM & 121 Intro to Chemistry .................. 5
CMST & 101 Introduction to Communication ............ 5
HUM 105 Interculture Communication .................. 5
NTR 150 Human Nutrition .......................... 5
PSYC & 100 General Psychology .................. 5

SCIENCE, SOCIAL, OR HUMAN CREDITS 10
TOTAL PROGRAM CREDITS 94.5

Early Childhood & Family Studies

Social & Human Services & Child & Family Studies
(206) 934-6900

The Child & Family Studies option provides academic preparation for students interested in working with children and their families in a wide range of employment opportunities.

Certificate

PREREQUISITES
Eligibility for the following:

ENGL & 101 English Composition .................. 5
MATH 084 Algebra I .......................... 5

SPECIALIZATION CERTIFICATE COURSES

SHS 103 Social Welfare Policy .................. 5
SHS 106 Principles of Interviewing and Counseling ........ 5
Following can be substituted:
SHS 108 Group Dynamics & Counseling ............ 5
SHS 197 Field Placement: Social and Human Services . 3
Credit range: 2-5
Total required field placement credits: 3

RELATED INSTRUCTION

ENGL & 101 English Composition .................. 5
HUM 105 Interculture Communication .................. 5
PSYC & 200 Lifespan Psychology .................. 5
SOC & 101 Introduction to Sociology .................. 5
Following can be substituted:
SOC 250 Marriage, Family & Intimate Relationships . 5

CFS SPECIALIZATION AREA

Students may take a total of 12 credits from the specialization areas listed below.

CFS 110 Developmentally Appropriate Activities Environment .................. 3
CFS 120 Physical & Intellectual Development .................. 3
CFS 130 Social/Emotional Development .................. 3
CFS 145 Activities to Foster Development School Age Year . 3
CFS 155 Development During the Adolescent Years ............ 3
CFS 180 Guiding Behavior & Social Dev School Age and Ad . 3
CFS 208 Planning & Space Design for School-Age & Youth . 3

CFS 215 Math and Science with Young Children .......... 3
CFS 223 Physical Development in School Age/Youth Program .................. 2
CFS 225 Assessment & Programming .................. 3
CFS 228 Childhood/Adolescent Sexuality & Education ........ 3
CFS 245 Partnerships with Diverse Families .................. 3
CFS 252 Violence Prevention .................. 3
CFS 263 Children with Disabilities .................. 3
CFS 270 Child and Family Health .................. 3
CFS 280 Methods Cultural Relv/Anti-Bias: Child & Families .................. 3
CFS 284 Literacy Development for Children & Families . 3
CFS 290 Budget and Finance .................. 4
Total required credits for CFS 290: 1-4
CFS 296 Personnel and Supervision .................. 4
Total required credits for CFS 296: 1-4
CFS 299 M.E.R.I.T .......................... 2
Total required credits for CFS 299: 1-5
Maximum of three credits may be applied toward certificate or degree.

TOTAL PROGRAM CREDITS 45

Eligibility for graduation requires a minimum 2.0 GPA in all required technical specialty and related instruction courses.

Early Childhood Education (State)

Social & Human Services / Child & Family Studies
(206) 934-6900

This program is part of the Washington State Career State Career Lattice for Early Childhood Education (meets minimum child care licensing standards or registered apprentice in high school, high School or equivalent and 20 hours basic STARS/MERIT training or 2 college credits in basics of child care course, at least 2 hours of training in each of the ECE Core Competency areas.) for early care and education professionals.

The State Early Childhood Education certificate is awarded following completion of the one of the specialized Early Childhood Short Certificates (total of 20 credits, which includes completion of the State Initial Early Childhood Education Certificate [12 credits] ) plus 27 credits in additional required coursework as noted.

Early Childhood Education Certificate (State Initial)

The initial Certificate is a point of entry or a continuation of professional development based on Level 1 on the Washington State Career State Career Lattice (meets minimum child care licensing standards or registered apprentice in high school, high School or equivalent and 20 hours basic STARS/MERIT training OR 2 college credits in basics of child care course, at least 2 hours of training in each of the ECE Core Competency areas.) The initial Certificate (level 2 Step 5) is the first “Stackable certificate” providing a foundation for the ECS State Credential and association degree.
**Early Childhood Education Certificate (State)**

**TECHNICAL SPECIALTY COURSES**

- ECED& 105 Introduction to Early Childhood Education .................. 5
- ECED& 107 Health Safety Nutrition ............................................. 5
- ECED& 120 Practicum: Nurturing Relationships ............................. 2

**TOTAL PROGRAM CREDITS** 12

**TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE**

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education .................. 5
- ECED& 107 Health Safety Nutrition ............................................. 5
- ECED& 120 Practicum: Nurturing Relationships ............................. 2

**TECHNICAL SPECIALTY INITIAL CERTIFICATE CREDITS** 12

**TECHNICAL SPECIALTY COURSES - SPECIALIZATION**

ECED& 139 Administration .......................................................... 3
ECED& 115 Child Development .................................................... 5

**TECHNICAL SPECIALTY SPECIALIZATION CREDITS** 8

**TECHNICAL SPECIALTY SPECIALIZATION CREDITS** 8

**RELATED INSTRUCTION**

- ENGL& 101 English Composition .................................................. 5
- EDUCC 115 Child Development .................................................... 5

**RELATED INSTRUCTION CREDITS** 10

**TOTAL PROGRAM CREDITS** 47

**Early Childhood Education Certificate (State Short) - Administration**

This certificate is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

**TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE**

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education .................. 5
- ECED& 107 Health Safety Nutrition ............................................. 5
- ECED& 120 Practicum: Nurturing Relationships ............................. 2

**TECHNICAL SPECIALTY INITIAL CERTIFICATE CREDITS** 12

**TECHNICAL SPECIALTY COURSES - SPECIALIZATION**

ECED& 134 Family Child Care ..................................................... 3

**TECHNICAL SPECIALTY SPECIALIZATION CREDITS** 8

**TOTAL PROGRAM CREDITS** 20

**Early Childhood Education Certificate (State Short) - Family Child Care**

This Certificate is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

**TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE**

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education .................. 5
- ECED& 107 Health Safety Nutrition ............................................. 5
- ECED& 120 Practicum: Nurturing Relationships ............................. 2

**TECHNICAL SPECIALTY INITIAL CERTIFICATE CREDITS** 12

**TECHNICAL SPECIALTY COURSES - SPECIALIZATION**

ECED& 134 Family Child Care ..................................................... 3

**TECHNICAL SPECIALTY SPECIALIZATION CREDITS** 8

**TOTAL PROGRAM CREDITS** 20
Early Childhood Education Certificate (State Short) - General

This certificate is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education ........ 5
- ECED& 107 Health Safety Nutrition .......................... 5
- ECED& 120 Practicum: Nurturing Relationships .............. 2

TECHNICAL SPECIALTY - INITIAL CERTIFICATE CREDITS 12

TECHNICAL SPECIALTY COURSES - SPECIALIZATION

- EDUC& 115 Child Development .............................. 5
- EDUC& 130 Guiding Behavior ............................... 3

TECHNICAL SPECIALTY SPECIALIZATION CREDITS 8

TOTAL PROGRAM CREDITS 20

Early Childhood Education Certificate (State Short) - Infant Toddler Care

This certificate is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education ........ 5
- ECED& 107 Health Safety Nutrition .......................... 5
- ECED& 120 Practicum: Nurturing Relationships .............. 2

TECHNICAL SPECIALTY - INITIAL CERTIFICATE CREDITS 12

TECHNICAL SPECIALTY COURSES - SPECIALIZATION

- EDUC& 132 Infants/Toddlers Care ......................... 3
- EDUC& 115 Child Development .............................. 5

TECHNICAL SPECIALTY SPECIALIZATION CREDITS 8

TOTAL PROGRAM CREDITS 20

ECE: State Short Early Childhood Education Certificate - School-Age Care

This certificate is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

- ECED& 105 Introduction to Early Childhood Education ........ 5
- ECED& 107 Health Safety Nutrition .......................... 5
- ECED& 120 Practicum: Nurturing Relationships .............. 2

TECHNICAL SPECIALTY - INITIAL CERTIFICATE CREDITS 12

TECHNICAL SPECIALTY COURSES - SPECIALIZATION

- EDUC& 115 Child Development .............................. 5
- EDUC& 136 School Age Care ................................. 3

TECHNICAL SPECIALTY SPECIALIZATION CREDITS 8

TOTAL PROGRAM CREDITS 20

Graphic Design

Business, Information Technologies & Creative Arts Division
(206) 934-3830

Graduates of the Graphic Design program get to work when they leave us. We concentrate on skills for immediate entry into the job market. Our curriculum is strong on graphic design fundamentals, yet explores and adapts to emerging communication technologies. We pride ourselves in keeping our curriculum current with changes and developments on an annual basis.

Conceptual design and technical skill combine to produce a competitive portfolio. Instructors with industry experience lead students in consecutive integrated tracks of print design and interaction design, which includes but is not limited to, Web Design, UI/UX, Mobile Apps, and Motion. Problem solving, strategy development, and powerful use of typography and visuals achieve our communication solutions. Classes are organized in collegial work groups mirroring a professional studio environment. Design theory and practice, along with production using current computer software, prepare students for a graphic design career in print and interactive media.

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

- DES 110 History of Graphic Design ...................... 3.5
- DES 121 Typography I .................................... 3.5
- DES 122 Typography II ................................... 3.5
- DES 131 Graphic Design I .................................. 3.5
- DES 132 Graphic Design II .................................. 3.5
- DES 133 Graphic Design III ................................ 3.5
- DES 145 Graphic Production I ............................ 3.5
- DES 146 Graphic Production II .......................... 3.5
- DES 147 Graphic Production III .......................... 3.5
- DES 151 Interactive I ....................................... 3.5
- DES 152 Interactive II ...................................... 3.5
- DES 153 Interactive III ..................................... 3.5
- DES 197 Work Experience - Graphic Design ........... 3
  Credit range: 2-5
  Total required work experience credits for DES 197: 3
- DES 223 Typography III ..................................... 4
  Following can be substituted:
  DES 232 Graphic Design V .................................. 4

DES 223 is a book design class, while DES 232 is a magazine design class.
### Professional/Technical Programs

#### CenTral Professional/Technical Programs

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**Related Instruction**

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**Total Program Credits:** 117

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### Information Technology

**Business, Information Technologies & Creative Arts Division**

(206) 934-3150

The Information Technology three- to seven-quarter certificate and Associate of Applied Science–T degree (A.A.S.-T) programs prepare students for an industry with a growing need for skilled technicians. IT offers certificates and/or degrees in six areas: Applications Support, Database Administration and Development, Mobile Product Development, Network Design and Administration, Programming, Web Design, and Web Development. Graduates can expect to find employment as help desk analysts, programmers, web designers and developers, software support specialists, application developers, network designers and administrators, database designers and administrators and IT security specialists. Short-term certificates or industry certifications are offered in Computer Support Technician, Cisco Specialist I, II, III, Microsoft Specialist I, II, III, and Mobile Product Development.

#### Mobile Product Development Specialist Certificate

**At this time the program is under revision. Please contact division office for current information.**

**PREREQUISITES**

Computer Programming Certificate or Web Design Certificate OR passage of all courses.

Eligibility for the following courses:

- MATH& 141 Pre-Calculus I (Compass or MATH 098 pass)
- ENGL& 101 English Composition
- BTM 111 Business Applications I

*Following can be substituted:*

- 80%+ on Science and Math (SAM) Challenge - MS Office

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### Cisco Specialist I Certificate

**PREREQUISITES**

Each course listed below be completed with a 2.0 GPA or better.

- ENGL& 101 English Composition
- ITT 140 Introduction to Computer Hardware
- MATH 084 Algebra I
- NET 120 Network Essentials - Comptia Network +

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BTM 120</td>
<td>Customer Relations</td>
<td>5</td>
</tr>
<tr>
<td>ITC 136</td>
<td>UNIX Operating System</td>
<td>5</td>
</tr>
<tr>
<td>NET 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>NET 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS**

20

**Total Program Credits**

44

---

### Cisco Specialist II Short-Term Certificate

A short term, intensive Cisco Certified Network Administrator (CCNA or ICND 2) certificate in network infrastructure, Linux Administration and Network Security skills for entry level workers or established workers seeking updated skills

**PREREQUISITES**

Must meet all college requirements and Eligibility for ENG 101 and MAT 081. Prerequisites completed with minimum 2.0 or better GPA in each course and completion of Cisco Specialist I Short Term Certificate with 2.0 or better or related CompTIA certification and prior work experience.
ENGL& 101 English Composition .......................... 5
ITC  140 Introduction to Computer Hardware ........ 5
MATH 084 Algebra I ...................................... 5
NET 120 Network Essentials - Comptia Network + .... 5

**TECHNICAL SPECIALTY COURSES**

ITC  151 Introduction to Network Security ........... 5
ITC  299 Independent Study .......................... 5
NET 138 UNIX for Network Administration ........... 5
NET 146 Network Management - Cisco III .......... 5

TOTAL PROGRAM CREDITS 16-18

---

**Cloud Specialist Certificate**

This certificate is designed to provide core knowledge in Internet (cloud) technologies. Four areas of emphasis include: Solution architectures, risk and governance, mobility and applications, and service management. Cloud computing at Seattle Central focuses on new Internet-only business models and the re-ordering of traditional client server local area networking technologies in a highly distributed, mobile world. Entry into the certificate requires Linux and Windows experience. The Enterprise Virtualization and Cloud Management Capstone course requires the highest skill set.

**PROGRAM CERTIFICATE OUTCOMES:**
- Plan and manage multiple projects, both individually and as a team member
- Assess, develop, and maintain network security systems using ethical best practices and standardized tools.
- Design, implement, and manage hybrid-distributed environments.

**TECHNICAL SPECIALTY COURSES**

NTI  430 Collaboration and Secure Content Management 5
NTI  440 Devices and Services Cloud Environments ... 5
NTI  460 Enterprise Virtualization and Cloud Management Capstone ............ 5

TOTAL PROGRAM CREDITS 15

---

**Computer Support Technician Certificate**

**PREREQUISITES**
Prerequisites require completion with a 2.5 GPA or higher. Equivalent course work or experience will be evaluated for possible substitution. Prerequisites differ for I-BEST students.

**TECHNICAL SPECIALTY COURSES**

BTM 111 Business Applications I .................. 5
ENGL& 101 English Composition .................. 5
ITC  102 Information Systems Concepts ........ 5
MATH 084 Algebra I ............................... 5

TOTAL PROGRAM CREDITS 15

---

**Database Administration and Development Certificate**

**PREREQUISITES**
Prerequisites do not count toward credits required for this certificate.

**TECHNICAL SPECIALTY COURSES**

ITC  134 Computer Operating Systems ........... 5
ITC  140 Introduction to Computer Hardware .... 5
NET 120 Network Essentials - Comptia Network + . 5

TOTAL PROGRAM CREDITS 23

---

**Database Administration and Development Certificate**

**PREREQUISITES**
Prerequisites do not count toward credits required for this certificate.

**TECHNICAL SPECIALTY COURSES**

ITC  110 Programming Fundamentals ............. 5
ITC  134 Computer Operating Systems ........... 5
ITC  136 UNIX Operating System ............... 5
ITC  140 Introduction to Computer Hardware .... 5
ITC  172 NET Web Programming .................. 5
ITC  220 Database Development ................... 5
ITC  222 SQL ..................................... 5
ITC  224 Designing Database Solutions ........... 5
ITC  226 Database Administration ............... 5
ITC  255 Systems Analysis ........................ 5
ITC  240 Web Applications 1 .................... 5
WEB 110 Web Authoring I ......................... 4

TECHNICAL SPECIALTY CREDITS 59

**RELATED INSTRUCTION**

BTM 120 Customer Relations ....................... 5

TOTAL PROGRAM CREDITS 64

---

**Linux Short-Term Certificate**

This three-class series of courses prepare individuals with previous Linux administration skills for implementation in enterprise computing environments, past the equivalency of Linux certification. Students examine and demonstrate auto-configuration, file systems, partitioning, logical volumes, firewalling, LAN/WAN support applications, Enterprise Applications, like web, mobility, email, storage, cloud virtualization, database, and troubleshooting. Students will also implement third-party applications and mixed server environments, including integration with Microsoft and Apple products.

**PROGRAM CERTIFICATE OUTCOMES:**
- Plan and manage multiple projects, both individually and as a team member
- Apply industry standard techniques for collecting, analyzing, and optimizing data within an enterprise network infrastructure.
- Assess, develop, and maintain network security systems using ethical best practices and standardized tools.

ITC  205 IT Career Strategies .................... 2

Following can be substituted:

ITC  205 IT Career Strategies .................... 2
**Microsoft Specialist I Certificate**

**PREREQUISITES**
Entrance requirements: Compass test and writing samples and eligibility for MATH 081 and ENGL 101

Courses listed below must be completed with a 2.0 GPA or better:
- BTM 111 Business Applications I .... 5
- ENGL& 101 English Composition .......... 3
- ITC 102 Information Systems Concepts ........ 3
- MATH 084 Algebra I .......................... 5

**TECHNICAL SPECIALTY COURSES**
- BTM 275 Computer User Support ............... 5
- HDC 106 Interviewing, Resumes, Job Hunting, Employer/En int ......................... 2
  *Following can be substituted:*
  - ITC 205 IT Career Strategies ............... 2
- NET 122 Network Operating Systems 1 - Win2k Professional ................................ 5
- NET 124 Network Operating Systems 2 - Win2k Server .......... 5

**TECHNICAL SPECIALTY CREDITS** 37

**ELECTIVE**
Total IT Elective: 5 credits
Choose one of the following. ITC 110 is recommended course.
- ITC 110 Programming Fundamentals .............. 5
- ITC 220 Database Development ..................... 5

**TOTAL CREDITS** 21

**Microsoft Office System Short-Term Certificate**

This certificate is designed to provide essential technical support skills to end users of essential Microsoft applications in both technical and non-technical departments and positions. Students will receive preparation to take the Microsoft Office Systems (MOS) certification exam at the proficient level.

**TECHNICAL SPECIALTY COURSES**
- MIC 101 Introduction to Microcomputer Applications ..... 4
  *Following can be substituted:*
  - MIC 160 P (Supporting Microsoft Application for PowerPoint)
    Students can take MIC 101 or MIC 160 P as an alternate for the third course
  - MIC 160 Supporting Microsoft Application W Certification .................................. 4
    *Following can be substituted:*
    - MIC 160 W (Supporting Microsoft Application for Word)

**TOTAL PROGRAM CREDITS** 12

**Microsoft Specialist II Short-Term Certificate**

A short term, intensive Microsoft Specialist II certificate delves deeper into Microsoft Windows Server 2008 for implementing and administering a networked environment utilizing tools, applications and processes to manage a secure client/server environment.

**PREREQUISITES**
Must meet all college requirements and Eligibility for ENG 101; ITC 102 and MIC 101; must also have completed Microsoft Specialist I Certificate of Completion or have related MSITP certification tests completed.

**TECHNICAL SPECIALTY COURSES**
- NET 126 Network OS 3 - Win2k Network Infrastructure .................. 5
- NET 134 Network Communications - TCP/IP .......................... 5

**ELECTIVES**
Any IT course - Recommended Electives listed below:
- ITC 110 Programming Fundamentals .............. 5
  *Following can be substituted:*
  - Recommend ITC 110 or ITC 220
- ITC 220 Database Development ..................... 5
  *Following can be substituted:*
  - Recommend ITC 110 or ITC 220

**ELECTIVE CREDITS** 5

**TOTAL PROGRAM CREDITS** 15

**Microsoft Specialist III Short-Term Certificate**

(206) 934-5558

A short term, intensive Microsoft Specialist III certificate explores case studies to analyze requirements, discuss needs and implement solutions to solve enterprise network technology and application integration issues.

**PREREQUISITES**
Must meet all college requirements and Eligibility for ENG 101; ITC 102 and MIC 101; must also have completed Microsoft Specialist II Certificate of Achievement or have passed related MS Cert tests leading to MSITP.

**TECHNICAL SPECIALTY COURSES**
- ITC 197 Work Experience Computer Information Technology .................................. 5
- NET 200 Enterprise Applications .......................... 10

**TOTAL PROGRAM CREDITS** 15
Network Design and Administration Certificate

(206) 934-5558

PREREQUISITES
Prerequisites don’t count toward credits required for this certificate.

Eligibility for ENGL& 101 and College Math

ITC  102  Systems Concepts..........................3

Following can be substituted:
BTM 111 - Business Applications I

-OR-

Previous computer experience and MS Office

ITC  140  Introduction to Computer Hardware........5
NET  120  Network Essentials - Comptia Network +....5

TECHNICAL SPECIALTY CLASSES

CIS  197  Work Experience - Computer Information Systems..................3
Credit range: 3-5
Total CIS 197 credits required: 3

ITC  136  UNIX Operating System........................5
ITC  151  Introduction to Network Security....................5

NET  122  Network Operating Systems 1 - Win2k Professional........5
NET  124  Network Operating Systems 2 - Win2k Server........5
NET  126  Network OS 3 - Win2k Network Infrastructure........5
NET  134  Network Communications - TCP/IP................5
NET  138  UNIX for Network Administration................5
NET  142  Network Management - Cisco I................5
NET  144  Network Management - Cisco II........5
NET  146  Network Management - Cisco III........5
NET  200  Enterprise Applications........................10

TECHNICAL SPECIALTY CREDITS 58

TOTAL PROGRAM CREDITS 68

Network Design and Administration Associate of Applied Science - T Degree (A.A.S-T)

Completion of Certificate Requirements: 78 credits

PREREQUISITES
Prerequisites don’t count toward credits required for this certificate.

Eligibility for ENGL& 101 and College Math

ITC  102  Information Systems Concepts........3

Following can be substituted:
BTM 111 - Business Applications I

-OR-

Previous computer experience and MS Office

ITC  140  Introduction to Computer Hardware........5
NET  120  Network Essentials - Comptia Network +....5

TECHNICAL SPECIALTY CLASSES

CIS  197  Work Experience - Computer Information Systems........3
Credit range: 3-5
Total CIS 197 credits required: 3

ITC  136  UNIX Operating System........................5
ITC  151  Introduction to Network Security....................5

NET  122  Network Operating Systems 1 - Win2k Pro........5
NET  124  Network Operating Systems 2 - Win2k Server........5
NET  126  Network OS 3 - Win2k Network Infrastructure....5
NET  134  Network Communications - TCP/IP................5
NET  138  UNIX for Network Administration................5
NET  142  Network Management - Cisco I................5
NET  144  Network Management - Cisco II........5
NET  146  Network Management - Cisco III........5
NET  200  Enterprise Applications........................10

TECHNICAL SPECIALTY CREDITS 58

RELATED INSTRUCTION

CSC  110  Introduction to Computer Programming........5
Following can be substituted: other Natural Science course

ENGL& 101  English Composition...................5
ENGL& 102  Composition II........................5
Following can be substituted: other Communications course

HUM  105  Interculture Communication...........5
Following can be substituted: other Humanities course

MATH  136  Inferential Statistics...................5
Following can be substituted:
MATH& 146 - Introduction to Statistics

PSYC& 100  General Psychology...................5
Following can be substituted: other Social Science course

RELATED INSTRUCTION CREDITS 30

TOTAL PROGRAM CREDITS 98

Programming Certificate

PREREQUISITES
Prerequisites don’t count toward credits required for this certificate.

Eligibility for MATH 098 and ENGL&101

ENGL  106  Technical Writing.........................3
ITC  102  Information Systems Concepts........3
MATH  119  Mathematics Behind Information Technology..3
MIC  120  Business Applications 1....................5

TECHNICAL SPECIALTY COURSES

ITC  110  Programming Fundamentals................5
Following can be substituted:
CSC  110  Intro to Computer Programming........5

ITC  115  Object Oriented Programming.................5
Following can be substituted:
CSC  142  Computer Programming I..................5

ITC  162  JAVA 2 with Intro to Android.................5
Following can be substituted:
CSC  143  Computer Programming II....................5

ITC  172  NET Web Programming........................5
ITC  220  Database Development......................5
ITC  240  Web Application 1..........................5
ITC  260  Web Application 3..........................5
ITC  255  Systems Analysis..........................5
ITC  298  Special Topics...........................5
WEB  110  Web Authoring I............................4

TECHNICAL SPECIALTY CREDITS 49
### Programming Associate of Applied Science - T Degree (A.A.S.-T)

Completion of Certificate Requirements: 69 credits

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITC 285</td>
<td>Capstone Project Class</td>
<td>5</td>
</tr>
</tbody>
</table>

#### RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 140</td>
<td>Customer Relations</td>
<td>5</td>
</tr>
</tbody>
</table>

#### ELECTIVES

Total Required Elective Credits: 15

IT Electives ........................................... 15

Total Program Credits 69

### Web Design Certificate

#### PREREQUISITES

Prerequisites don’t count toward credits required for this certificate.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition</td>
<td>5</td>
</tr>
<tr>
<td>ITC 102</td>
<td>Information Systems Concepts</td>
<td>3</td>
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</tbody>
</table>

Following can be substituted: Final Exam Test-out

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 098</td>
<td>Intermediate Algebra</td>
<td>5</td>
</tr>
<tr>
<td>MIC 120</td>
<td>Business Applications</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:
Science and Math (SAM) Challenge

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITC 197</td>
<td>Work Experience Computer Information Technology</td>
<td>5</td>
</tr>
</tbody>
</table>

Credit range: 1-5

Total ITC 197 credits required: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ITC 220</td>
<td>Database Development</td>
<td>5</td>
</tr>
<tr>
<td>ITC 240</td>
<td>Web Application 1</td>
<td>5</td>
</tr>
<tr>
<td>WEB 105</td>
<td>Working On A Web Project</td>
<td>3</td>
</tr>
<tr>
<td>WEB 110</td>
<td>Web Authoring I</td>
<td>4</td>
</tr>
<tr>
<td>WEB 112</td>
<td>Typography</td>
<td>3</td>
</tr>
<tr>
<td>WEB 120</td>
<td>Web Authoring II</td>
<td>4</td>
</tr>
<tr>
<td>WEB 130</td>
<td>Web Authoring III</td>
<td>3</td>
</tr>
<tr>
<td>WEB 150</td>
<td>Introduction to JavaScript</td>
<td>5</td>
</tr>
<tr>
<td>WEB 160</td>
<td>Writing for the Web</td>
<td>2</td>
</tr>
<tr>
<td>WEB 170</td>
<td>Content Management Systems</td>
<td>4</td>
</tr>
<tr>
<td>WEB 200</td>
<td>Theory of Web Design</td>
<td>4</td>
</tr>
<tr>
<td>WEB 202</td>
<td>User Centered Web Design</td>
<td>4</td>
</tr>
<tr>
<td>WEB 205</td>
<td>Web Career Strategies</td>
<td>2</td>
</tr>
<tr>
<td>WEB 210</td>
<td>Advanced Web Design</td>
<td>5</td>
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#### RELATED INSTRUCTION

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHIL&amp; 106</td>
<td>Introduction to Logic</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Program Credits 86

### Web Design Associate of Applied Science - T Degree (A.A.S.-T)

Completion of Certificate Requirements: 66 credits

#### TECHNICAL SPECIALTY COURSES

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<td>WEB 130</td>
<td>Web Authoring III</td>
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<tr>
<td>WEB 150</td>
<td>Introduction to JavaScript</td>
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</tr>
<tr>
<td>WEB 160</td>
<td>Writing for the Web</td>
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</tr>
<tr>
<td>WEB 170</td>
<td>Content Management Systems</td>
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<td>Theory of Web Design</td>
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<td>PHIL&amp; 106</td>
<td>Introduction to Logic</td>
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</table>

Total Program Credits 94

### Web Design Certificate

#### PREREQUISITES

Prerequisites don’t count toward credits required for this certificate.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition</td>
<td>5</td>
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Following can be substituted:
Science and Math (SAM) Challenge

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</table>

Total Program Credits 86
### Related Instruction
- **BUS 240** Internet Law .......................... 5
- **ENGL& 101** English Composition ................... 5
- **HUM 105** Interculture Communication .............. 5
- **MATH& 136** Inferential Statistics ..................... 5

**Related Instruction Credits** 20

### Electives
- Natural World, the ..................................... 5
  - Following can be substituted:
  - Individual, Cultures and Societies

**Total Program Credits** 96

### Web Development Certificate

#### Prerequisites
Prerequisites don’t count toward credits required for this certificate.

- **ENGL 106** Technical Writing ............................ 3
- **ITC 102** Information Systems Concepts ............. 3
  - Following can be substituted: Final Exam Test-out
- **MATH 119** Mathematics Behind Information Technology ............................ 3
- **BTM 111** Business Applications I .......................... 5
  - Following can be substituted:
  - Science and Math (SAM) Challenge

- **WEB 110** Web Authoring I ............................. 4

#### Technical Specialty Courses

- **CSC 142** Computer Programming I .................. 5
  - Following can be substituted:
  - ITC 115 Object Orientated Programming ............. 5
  - ITC 110 Programming Fundamentals ..................... 5
  - ITC 136 Intro to UNIX .................................... 5
  - ITC 172 NET Web Programming ......................... 5
  - ITC 210 Advanced Web Development .................... 5
  - ITC 220 Database Development ........................... 5
  - ITC 240 Web Application 1 ............................... 5
  - ITC 250 Web Application 2 ............................... 5
  - ITC 260 Web Application 3 ............................... 5
  - ITC 285 Capstone Project Class ......................... 5
  - ITC 298 Special Topics .................................. 5
  - WEB 105 Working on a Web Project ..................... 3
  - WEB 120 Web Authoring II ............................... 4
  - WEB 150 Introduction to JavaScript ..................... 5
  - WEB 205 Web Career Strategies ........................ 2
  - IT Electives .............................................. 5

**Technical Specialty Credits** 74

#### Related Instruction

- **BUS 240** Internet Law .......................... 5
- **ENGL& 101** English Composition ................... 5
- **HUM 105** Interculture Communication .............. 5
- **MATH& 136** Inferential Statistics ..................... 5

**Related Instruction Credits** 20

**Total Program Credits** 93

### Maritime

Seattle Maritime Academy
4455 Shilshole Ave NW, Seattle, WA 98107
(206) 934-2647

The Marine Deck Technology program combines practical shipboard experience and requisite courses in nautical science with additional courses in computation, communication and human relations. Emphasis is placed on the theory, design, operation and maintenance of deck equipment and applied navigation skills. Students go to sea once a week during the second and third quarters aboard the college’s training vessels. The academic program is followed by a 30-day at-sea internship on a large commercial vessel.

SMA offers the Marine Deck Technology curriculum as a 63-64 credit program, culminating in a certificate in Marine Deck Technology. Each graduate who successfully completes the program receives eight months of sea service credit toward
Marine Deck Technology Certificate

This program is under review. Contact the department for up-to-date information.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGO 101</td>
<td>Principles of Marine Mechanics</td>
<td>2</td>
</tr>
<tr>
<td>MGO 103</td>
<td>Survival Craft</td>
<td>3</td>
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<tr>
<td>MGO 111</td>
<td>Seamanship</td>
<td>3</td>
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<tr>
<td>MGO 112</td>
<td>Marlinspike</td>
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<tr>
<td>MGO 113</td>
<td>Marine Safety</td>
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<tr>
<td>MGO 120</td>
<td>Vessel Maintenance</td>
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<tr>
<td>MGO 123</td>
<td>Basic Piloting and Navigation</td>
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<tr>
<td>MGO 124</td>
<td>Basic Vessel Handling</td>
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<tr>
<td>MGO 133</td>
<td>Seamanship Practicum</td>
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<td>MGO 137</td>
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<td>MGO 140</td>
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<td>MGO 166</td>
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<td>MGO 200</td>
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<td>Credit range: 4-5</td>
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<td>Total MGO 200 credits</td>
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**RELATED INSTRUCTION**

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<tbody>
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<td>ENGL 105</td>
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<tr>
<td>MGO 105</td>
<td>Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>MGO 119</td>
<td>Marine Mathematics</td>
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**TOTAL PROGRAM CREDITS** 61-64

Marine Engineering Technology Certificate

**TECHNICAL SPECIALTY COURSES**

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<tr>
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<td>Survival Craft</td>
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<tr>
<td>MGO 111</td>
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<td>MGO 113</td>
<td>Marine Safety</td>
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<tr>
<td>MGO 127</td>
<td>Fundamentals of Marine Electricity</td>
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<tr>
<td>MGO 147</td>
<td>Marine Engineering Practicum</td>
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<tr>
<td>MGO 177</td>
<td>Advanced Engineering Practicum</td>
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<tr>
<td>MTS 200</td>
<td>At Sea Internship</td>
<td>.5</td>
</tr>
<tr>
<td>MTS 212</td>
<td>Auxiliary Machinery and Ship Design</td>
<td>.4</td>
</tr>
<tr>
<td>MTS 217</td>
<td>Diesel Engine Maintenance and Operation</td>
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<tr>
<td>MTS 221</td>
<td>Applied Marine Electricity</td>
<td>.4</td>
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<tr>
<td>MTS 228</td>
<td>Marine Hydraulics</td>
<td>.5</td>
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<td>MTS 233</td>
<td>Marine Refrigeration</td>
<td>.5</td>
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<td>MTS 257</td>
<td>Advanced Diesel Engines</td>
<td>.4</td>
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<td>MTS 263</td>
<td>Propulsion Systems</td>
<td>.3</td>
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<td>MTS 284</td>
<td>Shipboard Pollution Prevention</td>
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<td>MTS 295</td>
<td>Marine Boilers</td>
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<td>MTS 294</td>
<td>License Seminar</td>
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**TOTAL PROGRAM CREDITS** 73-77

Nursing

Health & Human Services Division
(206) 934-4123

**Associate Degree in Nursing Direct Transfer Agreement/Major Ready Pathway (ADN DTA/MRP)**

The Associate Degree Nursing Program (ADN) offers an Associate In Nursing Direct Transfer Degree/Major Related Program (ADN DTA/MRP) with a two-year curriculum designed to prepare registered nurses for the workforce. The program includes nursing lab, skills theory, clinical practice and general education courses.

New students are accepted into the six-quarter program each fall and winter. Students are accepted on a first-come, first-served basis, after completion of all admission requirements. Applications are accepted in April and September. Opening dates and times will be posted before each application period. Prepares students to take the National Council of State Boards of Nursing Examination (NCLEX-RN) and apply for a license as a registered nurse in Washington State.
PREREQUISITES
The 45 credits of Program Prerequisites listed below are included in the total credits required for the program.
BIO& 160 General Biology W/ Lab .......................... 5
BIO& 241 Human Anatomy and Physiology 1 .......... 5
BIO& 242 Human Anatomy and Physiology 2 .......... 5
BIO& 260 Microbiology .................................... 5
CHEM& 121 Intro to Chemistry .............................. 5
ENGL& 101 English Composition .......................... 5
MATH& 146 Introduction to Statistics ....................... 5
PSYC& 100 General Psychology ............................ 5
PSYC& 200 Lifespan Psychology ........................... 5

COURSE REQUIREMENTS
Students are required to take the following general education requirements prior to graduation from the nursing program. These may be taken before entering the nursing program (preferred) or during the nursing program.
ENGL& 102 Composition II .................................. 5
HUM 105 Interculture Communication ...................... 5
Humanities Electives ........................................ 5
See Advising for list of approved courses

TECHNICAL SPECIALTY COURSES
NURS 204 Medical-Surgical Nursing III ................... 5
NURS 225 Maternal Practice ................................ 1
NURS 101 Fundamentals of Nursing ........................ 4
NURS 102 Medical-Surgical Nursing I ..................... 3
NURS 103 Medical-Surgical Nursing II .................... 3
NURS 111 Skills Lab I ........................................ 2
NURS 112 Nursing Practice I ................................. 3
NURS 113 Skills Lab II ......................................... 1
NURS 121 Nursing Practice .................................. 3
NURS 123 Nursing Practice II ................................ 4
NURS 132 Behavioral Health Nursing ....................... 3
NURS 142 Behavioral Health Practice ........................ 3
NURS 205 Medical-Surgical Nursing IV .................... 4
NURS 206 Health Promotion and Managing Care in Nursing .......................... 3
NURS 214 Nursing Practice III ............................... 3
NURS 215 Maternal Nursing .................................. 3
NURS 216 Nursing Practice IV ................................ 5
NURS 224 Pediatric Nursing .................................. 3
NURS 226 Transitions to Professional Nursing Role ...... 3
NURS 234 Pediatric Practice .................................. 1
NUTR& 101 Nutrition ......................................... 5
PHIL 131 Ethics and Policy in Healthcare I ................ 1
PHIL 132 Ethics and Policy in Healthcare II ................ 2
PHIL 230 Ethics and Policy in Healthcare III .............. 2
PSYC 132 Psychosocial Issues in Healthcare I ............ 2
PSYC 231 Psychosocial Issues in Healthcare II ............ 2
PSYC 232 Psychosocial Issues in Healthcare III .......... 1

TOTAL PROGRAM CREDITS ........................... 135

Nursing Assistant Short-Term Certificate
This course provides instruction and hands-on experience in basic nursing care skills including First Aid, CPR, and HIV/AIDS and supervised clinical training in a long-term care facility. Instruction will also be provided in student success and career transition skills. After successful completion of the Nursing Assistant Program, students are eligible to sit for the State of Washington NAC exam for certification as a Nurse Assistant.

TECHNICAL SPECIALTY COURSES
AHE 111 Nursing Assistant Certified ........................ 12

TOTAL PROGRAM CREDITS ................................ 12

Parent Education
Child and Family Education Division
(206) 934-6906
Seattle Central College offers parent education programs during fall, winter and spring quarters. In addition to the on-campus Parent/Child Center classes for infants and toddlers, there are numerous off-campus parent-operated cooperatives in the Seattle area for preschool children and their parents.

On campus, parents and their children attend a weekly two-hour class which offers children the opportunity to learn and grow through music and song, art, physical activities and numerous hands-on play and exploration materials.

Parents increase their skills and knowledge by sharing their experiences and learning from each other, enabling parents to gain confidence in themselves and their abilities to set reasonable guidelines and expectations.

Opticianry (School of)
(206) 934-4321
This two-year program provides an Associate of Applied Science (A.A.S.) degree in dispensing opticianry and is nationally accredited by the Commission on Opticianry Accreditation (COA). According to the Washington State Administrative Code and licensing guidelines: “The ophthalmic dispenser (dispensing optician) prepares duplications of and dispenses lenses, spectacles, eyeglasses, and/or appurtenances for intended wearers on written prescriptions from physicians or optometrists; and in accordance with such prescriptions, the dispenser measures, adapts, adjusts and fabricates such lenses, spectacles, eyeglasses and/or appurtenances to the human face for the aid or correction of visual or ocular anomalies of the human eye.” Students learn to help patients choose correct frames for their face and prescriptions and make sure that the lenses are individually appropriate, and learn to fit contact lenses. Business/administrative functions include record maintenance, purchasing, maintenance of supplies and equipment. Graduates must pass a state licensing exam and have four hours of HIV/AIDS education to practice in this field. Students may enter during Fall and Winter Quarters only. For more information contact the division office.
Professional/Technical Programs

School of Opticianry
Associate of Applied Science Degree (A.A.S.)

PREREQUISITES
Eligibility for the following:
ENGL 101 English Composition ......................... 5
MATH 110 Applied Math for Technicians ............... 3

TECHNICAL SPECIALTY COURSES

OPH 100 Orientation to Ophthalmic Dispensing ........ 2
OPH 101 Optical Theory I ................................ 5
OPH 102 Optical Theory II ................................ 4
OPH 103 Optical Theory III ................................ 3
OPH 105 Ocular Anatomy and Physiology ............. 3
OPH 106 Contact Lens Tech I .......................... 3
OPH 107 Ophthalmic Dispensing I ........................ 3
OPH 108 Ophthalmic Dispensing II ........................ 3
OPH 110 Optical Laboratory Technology I ............. 2
OPH 111 Optical Laboratory Technology II ............. 2
OPH 112 Optical Lab Tech III ........................... 2
OPH 113 Finishing I ................................. 2
OPH 197 Work Exp .................................... 3
Credit range: 2-5; Total required credits: 3
OPH 198 Ophthalmic Dispensing ........................ 3
Credit range: 2-5; Total required credits: 3
OPH 199 Ophthalmic Dispensing ........................ 3
Credit range: 2-5; Total required credits: 3
OPH 203 Contact Lenses II ............................. 3
OPH 204 Contact Lenses Tech III ....................... 3
OPH 205 Contact Lens IV ............................... 2
OPH 211 Finishing II ................................. 2
OPH 212 Finishing III ................................. 2
OPH 215 Benchwork Equipment and Techniques ....... 3
OPH 295 Ophthalmic Dispensing Bus .................... 1
OPH 296 Ophthalmic Disp Bus .......................... 1
OPH 297 Ophthalmic Disp Bus .......................... 1
OPH 299 Comprehensive ................................ 7

RELATED INSTRUCTION
AHE 165 Medical Terminology I ....................... 3
BUS& 101 Introduction to Business .................... 5

Following can be substituted:
BUS 185 Small Business Management ............... 5
-OR-
BUS 103 Personnel Management ...................... 3
CMST& 101 Introduction to Communication ........... 5

Following can be substituted:
HUM 105 Interculture Communication ............... 5
ENGL 101 English Composition ....................... 5
MATH 110 Applied Math for Technicians ............... 3
MIC 101 Introduction to Microcomputer Applications .4
PSYC& 100 General Psychology ....................... 5

Total Program Credits 123-127

Note: Eligibility for graduation requires a minimum 2.0 GPA in all required technical specialty and related instruction courses.

Social & Human Services

Social & Human Services & Child & Family Studies (206) 934-6900

The Social and Human Services program is for students interested in careers in the helping professions. The interdisciplinary program focuses on a strengths-based approach to prevention and intervention. The curriculum includes theoretical knowledge and targeted, skills-based education. Students practice their skills in a community based setting through a required internship in the student’s selected specialization area. The program covers many facets of the human services profession from the history of the field to social policy to interviewing skills.

Graduates may find employment in non-profit and for-profit agencies in the fields of child welfare, chemical dependency, family support, case management, early childhood education, delivery of basic needs, aging, and other service provision areas. Specialization options within the A.A.S. degree are Generalist, Chemical Dependency Specialist Certificate (details below) or the Child and Family Studies concentration. A 2.0 GPA in all required technical specialty and related instruction courses is required for graduation. For information on entrance requirements and additional coursework, contact the division office.

Associate of Applied Science Degree (A.A.S.)

PREREQUISITES
Eligibility for the following:
ENGL 101 English Composition ....................... 5
MATH 084 Algebra I .................................... 5

HUMAN SERVICES CORE
SHS 100 Introduction to Human Services ............ 5
SHS 103 Social Welfare Policy ......................... 5
SHS 106 Principles of Interviewing and Counseling ... 5
SHS 108 Group Dynamics & Counseling ............... 5
SHS 197 Field Placement: Social and Human Services .3
Credit range: 2-5; Total required credits: 3
SHS 198 Field Placement: Social and Human Services .5
Credit range: 2-5; Total required credits: 3
SHS 199 Field Placement: Social and Human Services .5
Credit range: 2-5; Total required credits: 4
SHS 210 Intro to Diversity in Human Services Practice ... 3
HUMAN SERVICES SPECIALIZATIONS

Select 30 credits from the following classes:

SHS 120 Introduction to Disabilities Study and Practice 3
SHS 150 HIV/AIDS Brief Risk Intervention 1
SHS 200 Theories of Counseling 4
SHS 205 Crisis Intervention and Management 3
SHS 207 Behavior Management 3
SHS 210 Intro to Diversity in Human Services Practice 3
SHS 215 Adolescent Development and Treatment 5
SHS 222 Conflict Management 3
SHS 223 Multicultural Counseling Gay Lesbian Bisexual Tr 1
SHS 224 Leadership Theory and Skills 3
SHS 225 Relapse Prevention 1
SHS 226 Adolescent Assessment 1
SHS 230 Suicide Risk Assessment 3
SHS 231 Pharmacology of Addictions 5
SHS 232 Chemical Dependency and the Family 3
SHS 233 Chemical Dependency Counseling 5
SHS 235 Introduction to Chemical Dependency 5
SHS 242 Mental Health Diagnosis in Chemical Dependency 5
SHS 245 Mental Health Overview 3
SHS 250 Client and Community Advocacy 4
SHS 255 Co-Occurring Disorders Treatment Issues and Services 5
SHS 265 Management and Supervision 5
SHS 270 Ethics in Human Services and Chemical Dependency 5
SHS 275 Chemical Dependency and Domestic Violence 3
SHS 280 Chemical Dependency Case Management 3
SHS 296 Special Topics 1
SHS 297 Special Topics 2
SHS 298 Special Topics 5
SHS 299 Independent Study or Research 5

Maximum of 8 credits applied towards degree

HUMAN SERVICES CORE

SHS 100 Introduction to Human Services 5
SHS 103 Social Welfare Policy 5
SHS 106 Principles of Interviewing and Counseling 5
SHS 108 Group Dynamics & Counseling 5
SHS 197 Field Placement: Social and Human Services 3
SHS 198 Field Placement: Social and Human Services 5
SHS 210 Intro to Diversity in Human Services Practice 3

Related Instruction

CMST& 101 Introduction to Communication 5
ENGL& 101 English Composition 5
ENGL& 102 Composition II 5
MATH 087 Foundations of Algebra 5
Following can be substituted:
MATH 091 Descriptive Statistics Algebra I
MIC 101 Introduction to Microcomputer Applications 4
PSYC& 100 General Psychology 5
SOC& 101 Introduction to Sociology 5

TOTAL PROGRAM CREDITS 90

Specific chemical dependency classes required for Washington State Chemical Dependency Counselor qualifications are listed in the Chemical Dependency Specialist brochure.
Eligibility for graduation requires a minimum 2.0 GPA in all required technical specialty and related instruction courses.

Associate of Applied Science - T Degree (A.A.S.-T)

PREREQUISITES
Eligibility for the following:
ENGL& 101 English Composition 5
MATH 084 Algebra I 5

HUMAN SERVICES CORE

SHS 100 Introduction to Human Services 5
SHS 103 Social Welfare Policy 5
SHS 106 Principles of Interviewing and Counseling 5
SHS 108 Group Dynamics & Counseling 5
SHS 197 Field Placement: Social and Human Services 3
SHS 198 Field Placement: Social and Human Services 5
SHS 210 Intro to Diversity in Human Services Practice 3

HUMAN SERVICES SPECIALIZATIONS

SHS 120 Introduction to Disabilities Study and Practice 3
SHS 150 HIV/AIDS Brief Risk Intervention 1
SHS 200 Theories of Counseling 4
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SHS 207 Behavior Management 3
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SHS 224 Leadership Theory and Skills 3
SHS 225 Relapse Prevention 1
SHS 226 Adolescent Assessment 1
SHS 230 Suicide Risk Assessment 3
SHS 231 Pharmacology of Addictions 5
SHS 232 Chemical Dependency and the Family 3
SHS 233 Chemical Dependency Counseling 5
SHS 235 Introduction to Chemical Dependency 5
SHS 242 Mental Health Diagnosis in Chemical Dependency 5
SHS 245 Mental Health Overview 3
SHS 250 Client and Community Advocacy 4
SHS 255 Co-Occurring Disorders Treatment Issues and Services 5
SHS 265 Management and Supervision 5
SHS 270 Ethics in Human Services and Chemical Dependency 5
SHS 275 Chemical Dependency and Domestic Violence 3
SHS 280 Chemical Dependency Case Management 3
SHS 296 Special Topics 1

Maximum of 8 credits applied towards degree
Surgical Technology Certificate

PROGRAM ENTRANCE REQUIREMENTS
High School Diploma or GED equivalent in the U.S.
Eligibility for MATH 085

All prerequisites must be completed with a 2.5 GPA for each course before a student can enter the program or be placed on the waiting list. Entrance into the program or waiting list is on a first come first served basis.

PREREQUISITES
Total Prerequisite Credits: 20
AHE 168 Medical Terminology ...................... 5
BIOL 128 Survey of Human Anatomy & Physiology .5
ENGL 101 English Composition .................... 5
PHYS 200 Lifespan Psychology

TECHNICAL SPECIALTY COURSES
AHE 126 Essential Skills in Healthcare ............. 2
AHE 140 Central Supply/Instrument Technician ..... 10
SURG 111 Surgical Lab ................................ 6
SURG 113 Theory I ..................................... 10
SURG 115 Clinical Orientation ...................... 2
SURG 121 Surgical Specialty/Professional PREP .6
SURG 123 Surgical Theory II ......................... 9
SURG 125 Clinical Practice I ......................... 4
SURG 133 Surgical Theory III ....................... 10
SURG 135 Clinical Practice II ...................... 12

TOTAL PROGRAM CREDITS 86

Associate of Applied Science - T Degree (A.A.S.-T)

PROGRAM ENTRANCE REQUIREMENTS
High School Diploma or GED equivalent in the U.S.
Eligibility for Math 085

All prerequisites must be completed with a 2.5 GPA for each course before a student can enter the program or be placed on the waiting list. Entrance into the program or waiting list is on a first come first served basis.

PREREQUISITES
Total Prerequisites Credits: 30
AHE 168 Medical Terminology ...................... 5
BIOL 128 Survey of Human Anatomy & Physiology .5
ENGL 101 English Composition .................... 5
HUM 105 Interculture Communication .............. 5
MATH 146 Introduction to Statistics ............... 5
PHYS 100 Physics for Non-Science Majors .......... 5

Following can be substituted:
PHYS 200 Lifespan Psychology
### Wood Technology

**2310 South Lane**  
(206) 934-5460

#### Cabinetmaking & Architectural Woodworking  
Associate of Applied Science Degree (A.A.S.)

This program prepares students for employment in the cabinetmaking and fine woodworking trades.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCO 110</td>
<td>Introduction to Professional Woodworking</td>
<td>18</td>
</tr>
<tr>
<td>WCO 150</td>
<td>Cabinetmaking &amp; Fine Woodworking</td>
<td>18</td>
</tr>
<tr>
<td>WCO 153</td>
<td>Basic Cabinetmaking Fundamentals</td>
<td>18</td>
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<tr>
<td>WCO 155</td>
<td>Adv Cabinetmaking Architectural Woodworking Fund</td>
<td>18</td>
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<tr>
<td>WCO 157</td>
<td>Independent Capstone Project</td>
<td>18</td>
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</tr>
<tr>
<td>MIC 103</td>
<td>Computer Applications for Builders</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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**TOTAL PROGRAM CREDITS**  
102

#### Cabinetmaking & Fine Woodworking Certificate

**TECHNICAL SPECIALTY COURSES**

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<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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</tbody>
</table>

**TOTAL PROGRAM CREDITS**  
78

### Carpenter Certificate

The Carpenter program prepares students for employment in residential and light commercial construction trades. Students have the option to earn quarterly short term certificates or the Carpenter Program Associate of Applied Science (A.A.S.) degree. The carpentry one-quarter certificates can build to a full carpentry degree.

**TECHNICAL SPECIALTY COURSES**

<table>
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<tr>
<td>WCO 140</td>
<td>Carpentry</td>
<td>18</td>
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<tr>
<td>WCO 142</td>
<td>Introduction to Carpentry and Blueprint Reading</td>
<td>18</td>
</tr>
<tr>
<td>WCO 143</td>
<td>Building Site System Site Selection to Layout</td>
<td>18</td>
</tr>
<tr>
<td>WCO 144</td>
<td>Foundation System Forms to Concrete Finishes</td>
<td>18</td>
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</table>

**TOTAL PROGRAM CREDITS**  
85

#### Carpenter Fundamentals Short-Term Certificate

Teaches the fundamental knowledge and skills of residential carpentry. Topics cover: carpentry math, blueprint reading, building science, building site systems, foundation systems, and the selection and use of tools and material.

**TECHNICAL SPECIALTY COURSES**

<table>
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<tr>
<td>WCO 142</td>
<td>Introduction to Carpentry and Blueprint Reading</td>
<td>4</td>
</tr>
<tr>
<td>WCO 143</td>
<td>Building Site System Site Selection to Layout</td>
<td>5</td>
</tr>
<tr>
<td>WCO 144</td>
<td>Foundation System Forms to Concrete Finishes</td>
<td>9</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**  
18
**Finish Fundamentals Short-Term Certificate**

Teaches basic knowledge and skills for applying exterior and interior carpentry finishes. Topics cover: enclosure systems, siding, insulation, windows, drywall, trim work, and the selection and use of construction products and materials.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCO 148</td>
<td>Exterior Finishes Building Enclosure Finish Trim</td>
<td>.9</td>
</tr>
<tr>
<td>WCO 149</td>
<td>Interior Finishes Door Installation to Trim</td>
<td>.9</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 18

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**Framing Fundamentals Short-Term Certificate**

Teaches basic knowledge and skills for building framing systems. Topics cover: floor, ceiling, wall, roof, and stair system construction; building codes, best practices for improving a building’s energy and resource efficiency; and the selection and use of construction products and material

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCO 145</td>
<td>Framing Systems Floor to Ceiling</td>
<td>.9</td>
</tr>
<tr>
<td>WCO 146</td>
<td>Roof System Framing to Roofing Installation</td>
<td>.5</td>
</tr>
<tr>
<td>WCO 147</td>
<td>Stair System Rough Framing to Finished Stainwell</td>
<td>.4</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 18

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**Marine Technology Certificate**

The Marine Technology program at Seattle Central College will train students for a career in the boatbuilding and repair-refit industries. The program teaches entry-level skills in the building and repair of wood and fiberglass hull and vessel components, outboard and inboard engines, testing, maintaining, and repairing electrical systems, and the installation of marine pumps in new or retrofit vessels. Instruction also includes the techniques of working with fiberglass and related chemicals.

Students who complete the certificate program will have the option to complete an A.A.S. degree by completing an internship, taking marine electronics, marine welding, or advanced wooden boat joinery and repair.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRT 101</td>
<td>Introduction to Composite Boatbuilding</td>
<td>.14</td>
</tr>
<tr>
<td>MRT 102</td>
<td>Introduction to Marine Electrical Systems</td>
<td>.4</td>
</tr>
<tr>
<td>MRT 103</td>
<td>Wooden Boat Joinery and Repair</td>
<td>.10</td>
</tr>
<tr>
<td>MRT 104</td>
<td>Introduction to Marine Mechanical Systems</td>
<td>.8</td>
</tr>
<tr>
<td>MRT 105</td>
<td>Advanced Composites</td>
<td>.14</td>
</tr>
<tr>
<td>MRT 106</td>
<td>Marine Electrical II</td>
<td>.4</td>
</tr>
<tr>
<td>WCO 110</td>
<td>Introduction to Professional Woodworking</td>
<td>.18</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS** 72

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**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
<td>.3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Applied Math for Technicians</td>
<td>.3</td>
</tr>
<tr>
<td>MIC 103</td>
<td>Computer Applications for Builders</td>
<td>.3</td>
</tr>
</tbody>
</table>

Following can be substituted:

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MIC 203</td>
<td>Introduction to CAD</td>
<td>.3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>.3</td>
</tr>
</tbody>
</table>

**RELATED INSTRUCTION CREDITS** 12

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**ELECTIVES**

Choose from one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRT 107</td>
<td>Internship</td>
<td>.10</td>
</tr>
<tr>
<td>MRT 108</td>
<td>Advanced Wooden Boat Joinery and Repair</td>
<td>.18</td>
</tr>
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<td>Introduction to Professional Woodworking</td>
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**ELECTIVE CREDITS** 10

**TOTAL PROGRAM CREDITS** 84

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**Marine Technology Associate of Applied Science Degree (A.A.S.)**

The Marine Technology program at Seattle Central College will train students for a career in the boatbuilding and repair-refit industries. The program teaches entry-level skills in the building and repair of wood and fiberglass hull and vessel components, outboard and inboard engines, testing, maintaining, and repairing electrical systems, and the installation of marine pumps in new or retrofit vessels. Instruction also includes the techniques of working with fiberglass and related chemicals.

**TECHNICAL SPECIALTY COURSES**

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**TECHNICAL SPECIALTY CREDITS** 72

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**RELATED INSTRUCTION CREDITS** 12

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**ELECTIVES**

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**ELECTIVE CREDITS** 10

**TOTAL PROGRAM CREDITS** 94-116
Welcome
For students who intend to transfer to a four-year college or university, starting at North Seattle College offers real advantages—strong academic preparation and advising services, small classes, an innovative integrated studies program, broad eLearning options, and a variety of partnerships with four-year schools. While many graduates have continued their studies at universities such as Dartmouth, Penn State, and UC Berkeley, most North students transfer to the University of Washington. In fact, North consistently ranks among the highest of all community colleges in the number of students who are accepted to the University of Washington’s main campus. And North graduates fare well—for three of the last five years, a North transfer student has won the top academic award at the University of Washington or Seattle University.

North also provides outstanding career training in more than 50 certificate and degree programs including those in emerging fields such as nanotechnology, sustainable and conventional energy, and control technology, and fraud accounting. North helps students earn GEDs, learn English, enhance basic skills, and pursue a new skill or personal interest.

North Seattle College has three Bachelor of Applied Science (B.A.S.) degree programs in International Business, Information Technology: Application Development, and Early Childhood Education. All of North’s B.A.S. programs are designed for working students, using a hybrid format of online learning combined with weekday evening classes. North is planning to offer additional B.A.S. programs in the future, so keep checking the college website.

The college also provides a rich student life. Concerts, plays, intramural sports, fitness programs, an award-winning literary magazine, and diverse student population add depth to students’ experiences. Conveniently located in a quiet residential neighborhood five miles north of downtown, the campus includes environmentally sensitive wetlands which have inspired a college-wide commitment to sustainability.

Come for a visit and learn how North changes lives.

Vision
North Seattle College is a progressive educational resource, actively engaged with its community and known for innovation and responsiveness.

Getting Started at North
Admissions (206) 934-3663
Financial Aid (206) 934-3688
Registration (206) 934-3663
TTY (206) 934-0079

Mission
North Seattle College is committed to changing lives through education. We achieve our mission by offering comprehensive educational opportunities, creating a highly supportive learning environment, and engaging in effective and enduring partnerships.

Core Themes
- Excelling in Teaching and Learning
- Advancing Student Success
- Building a Sustainable Community
Academic & Student Support Services

Facts at a Glance*

2015–2016 ANNUAL PROFILES
Annual attendance 2015–2016 15,535

Special Enrollments
Distance Education 4,189
Running Start 394
International Students 1,452
Worker Retraining 394

FALL 2016 PROFILES
Students **
Median age 30
Ethnic diversity 44%
Male/Female 39%/61%
With bachelor or higher degrees 31%
Employed full-time 57%
With dependents 29%
single parents 6%
Full-time/Part-time attendance 29%/71%

Programs
Academic Transfer 40%
Workforce Education 45%
Basic Skills 9%
Pre-college and Others 6%

Course Funding Sources
State-funded 64%
Contract-supported 9%
Student-supported 27%

* Source: State Board for Community and Technical Colleges Data Warehouse and Seattle College District’s Database.
** State-funded

Advising
(206) 934-3658 ■ advisornorth@seattlecolleges.edu
northseattle.edu/advising
Advisors help students select courses and programs to reach their educational goals. Students seeking degrees or certificates attend new student orientation sessions, where they receive information about North and their program of study, and are assisted in selecting classes. Currently enrolled students work with advisors to develop educational plans based on the degrees or certificates they are pursuing. Advising provides resources and workshops on college transfer planning and provides opportunities for students to meet with four-year college representatives.

Career Services and Internships
Career Services
(206) 934-6074 ■ CareerServices@seattlecolleges.edu
northseattle.edu/career-services
Career Services provides students with full-time and part-time job listings, job search training, labor market information, and assistance clarifying career and occupational goals. Career Services can also provide Career Search workshops in the classroom or work with students one-to-one. The WorkSource Affiliate North Seattle, located in the Opportunity Center for Employment and Education, offers a wealth of job search resources, workshops, and events designed to help students and all job seekers find employment.

Internships
(206) 934-3734
northseattle.edu/services/internships/
Internships provide students with the opportunity to earn college credit while gaining practical work experience in their field of study. The Internship Program begins with CWE 101, which is a two-credit course designed to assist students in developing and applying for internships. Once an internship is secured, CWE 110 provides three credits for the internship.

Class Schedule Quarterly
northseattle.edu/schedule
Each college produces a quarterly Class Schedule listing the specific courses being offered that quarter. This schedule is available online approximately six weeks before the start of each quarter. View the online class schedule or download a PDF of the printed schedule at the website above.
Computer Labs
(206) 934-3630
itservices.northseattle.edu/content/open-computer-lab
Students at North have access to 70 computers in the Library and 50 more in the open computer lab in IB3303. In addition, all students with a North Seattle College NetID account can access the North wireless network from many areas on campus.

Counseling
(206) 934-3676
counseling
Counseling offers North students individual appointments, classes, workshops, and online self-help to identify career interests and select programs of study and majors. Counseling can help students improve concentration, study skills, test taking, lower stress and crisis management and to find referral resources.

Disability Services
(206) 934-3697 ■ Fax (206) 934-3958
ds@seattlecolleges.edu
disability-services
The Disability Services office provides accommodations so qualified students with disabilities have an equal opportunity to participate at North. Accommodations include, but are not limited to, sign language interpreters, adaptive equipment and software, testing modifications, note taking, and books in alternative format. Students are encouraged to contact Disability Services as soon as possible in order to avoid delays in accommodations. This office also offers consultations to faculty and staff about course content that provides equal access.

For specific details and additional information on eligibility and policies, see page 45.

eLearning/Distance Education
(206) 934-3738
North’s eLearning Support Center provides logistical support to distance learners as well as on-campus students in hybrid and web-enhanced classes. Academic divisions offer many credit courses and curricula through several non-traditional delivery modes, including fully online and blended learning. These modes bring new learning options to students who have diverse learning styles, those who require flexibility in their schedules, and those who do not live within commuting distance. Students can earn an A.A. Degree and/or receive specific certificates through fully online courses.

See page 25 for complete information on eLearning options.

International Programs
(206) 934-3672
international@seattlecolleges.edu
FAX (206) 934-3794
ip.northseattle.edu
International Programs (IP) oversees admissions of international students for study in the U.S. as well as Study Abroad Programs for domestic students. IP provides international student admissions, activities, and services for students who have non-resident visas. IP processes admission applications for international students and assists them after admission. Contact this office for information about international admissions, or for assistance with academic issues, immigration regulations, housing, or personal concerns. Field trips and other student activities promoting intercultural communication and enhanced experience of American culture are also provided. Students interested in Study Abroad should contact the IP office to learn about programs and scholarship opportunities.

See page 27 for more information.

Library Services, Student Media Center, and Teaching & Learning Center
(206) 934-3607
library.northseattle.edu
Library Services offers a wide range of books, eBooks, journals, magazines, DVDs, videos, CDs, digital cameras, and digital voice recorders for checkout or use in the library or classroom. Computer workstations provide access to the online library catalog, the Internet, databases, magazines, eJournals, journals, newspapers, encyclopedias, and more. Students have access to the collections of all Seattle Colleges and a national library collection database. Librarians can help students take full advantage of library resources. The librarians also offer for-credit classes in information literacy. The Student Media Center (SMC) is on the upper floor of the NSC Library. The SMC provides students with access to media resources and basic instruction, enabling them to incorporate audiovisual and print media into their course assignments and presentations.

North’s Teaching and Learning Center (TLC) is dedicated to the professional development of North’s faculty and staff. We actively support and encourage the continuous improvement of teaching and learning at NSC.
The Opportunity Center for Employment & Education (OCE&E) brings together multiple state agencies, community-based organizations and community colleges to help customers achieve self-sufficiency through education and employment. The Center offers an enhanced experience for the unemployed, the underemployed, students, and their families. It provides access to WorkSource employment services, Department of Social & Health Services benefits, North’s Workforce Education resources, and numerous other employment, education, and social services organizations—all conveniently located in one building at North Seattle College.

Testing Center
(206) 934-3674
northseattle.edu/testing

Students seeking a degree or certificate or enrolling in most English or mathematics classes (or classes with English or mathematics prerequisites) must take the placement tests prior to registration. These tests help the student and advisor to select appropriate classes. The placement tests are offered during weekly drop-in hours. Basic Transitional Skills test which include ABE and ESL placement tests are also available during drop-in hours. GED exams need to be scheduled through ged.com. For testing schedule and detailed information, visit the website or the Testing Center.

Student Learning Center
(206) 934-4752
northseattle.edu/tutoring
HSSR building next to the Grove Café

The Student Learning Center offers comprehensive one-on-one and group tutoring services including accounting, biology, chemistry, computer science, English, ESL, math, world languages, and more. The center also provides other support services including multimedia computer labs, study rooms, and student success workshops.

Important Areas in the Student Learning Center

Page One Writing & Language Center

The Page One Writing & Language Center offers tutoring assistance on reading, writing, listening, or speaking assignments for any class offered at North.

The Math/Science Learning Center (MSLC)
The Math/Science Learning Center (MSLC) offers free tutoring assistance to all North students currently enrolled in math, physics, chemistry, or computer science classes. Biology tutoring is also offered in a lab setting.

Accounting and Business Learning Center
The Accounting & Business Learning Center offers students coaching on accounting and business statistics questions and problems. Other Business Engineering & Information Technology (BEIT) Division programs that offer tutoring help include Real Estate, Electronics, and Information Technology.

Veterans Services
(206) 934-7309
https://northseattle.edu/office-veterans-services

The Office of Veterans Services at North Seattle College offers a range of assistance to veterans, reservists, active duty personnel, and eligible family members who receive Veterans Affairs education benefits. We provide help with any issues having to do with veteran status and serve as a resource for military personnel transitioning into civilian life.

We also offer certification services for anyone eligible for: Chapter 33 Post 9/11 GI Bill; Chapter 30 Montgomery GI Bill; Chapter 31 Vocational Rehabilitation; Chapter 35 Aid for Eligible Family Members and Chapter 1606/1607 Selective Reservists.

See page 33 for financial aid information.

Gender Equity Center
(206) 934-3696
northseattle.edu/womens-center

The Gender Equity Center connects current and prospective students to resources, referral, and information such as housing assistance, health care, childcare, intimate partner/domestic violence, and contraception. To foster diversity, equity, and care, the Gender Equity Center also helps organize, plan, and sponsor campus events and initiatives on gender and sexuality to support a welcoming campus environment. In collaboration with Student Leadership, the Gender Equity Center connects students to clubs such as the Feminist Alliance, the LGBTQ Club, and Sexes and Scholars Book Club.
Student Life

WorkForce Education Programs
(206) 934-3787
nsccwfe@seattlecolleges.edu
northseattle.edu/workforce-education

WorkFirst
(206) 934-3769

North Seattle College is a WorkFirst contractor that provides tuition assistance and support for eligible students. In order to be eligible, students must be pursuing a career training certificate or degree, English as a Second Language (ESL) classes, or a high school completion or high school equivalency certificate. Students must also be receiving TANF benefits from DSHS and have a referral.

Opportunity Grant (OG)

Opportunity Grant helps low-income Washington residents increase job skills and knowledge to become eligible for living-wage, high-demand careers in nursing, nursing assistant, general business, IBEST Phlebotomy, IBEST Early Childhood Education, accounting, or HVAC (heating and cooling systems). Students must be in one of these programs, be income eligible, have less than an associate degree, and complete a Free Application for Federal Student Aid (FAFSA) or Washington Application for State Financial Aid (WASFA) every year. Qualified students may receive funds to cover tuition and mandatory fees for 45 credits, up to $1,000 for books per year and limited emergency assistance.

Basic Food Employment and Training

The Basic Food Employment & Training (BFET) program is available to individuals who receive basic food assistance from DSHS, meet program eligibility guidelines, and are not receiving TANF cash assistance. Students who participate in BFET are eligible to receive tuition assistance and other support services. Students can pursue a career training certificate or degree, English as a Second Language (ESL) classes, or a high school completion or high school equivalency certificate.

Worker Retraining

Worker Retraining provides tuition assistance for students who are eligible for Unemployment Insurance (UI) benefits; have exhausted unemployment benefits within the past 48 months; veterans who has been discharged within the past 48 months; active duty military with separation orders; workers employed in a not-in-demand job; displaced homemakers due to divorce or death of spouse within the past 48 months or self-employed, but are now unemployed due to economic changes in your community.

Art Gallery
(206) 934-4557
northseattle.edu/programs/art

The art gallery is a professional art gallery featuring artwork by regional artists working in a range of media. The gallery hangs six different exhibitions annually, including a student show in spring. It is located next to the bookstore in IB1430.

11 am–3 pm, Mon–Fri
5–8 pm, Wed and Thurs evenings

Bookstore
(206) 934-4678
northsecc.bncollege.com/

The Bookstore carries textbooks, supplemental course materials, food and drinks, school supplies, and North clothing. Rent textbooks and save an average of 50%. Purchase books online to get first pick of the used books, and save time in line. The Bookstore also offers a year-round textbook buy-back service.

Hours: 8 am–6 pm, Mon & Tues; 8 am–4:30 pm, Wed–Fri

Childcare Center
(206) 934-3644
northseattle.edu/child-care

For the children of students at North, the ASB Child Care Center provides a safe, supportive, welcoming, and diverse environment that fosters student access, retention and success. The childcare center is licensed by the Department of Early Learning of Washington state and participates in the City of Seattle’s Child Care Assistance Program. It serves children ages 18 months through five years old. Call for tours or fee information.

Hours: 7:30 am–4 pm, Mon–Fri

Food Services
(206) 934-3728
northseattle.edu/dining-services

The Espresso Lounge features Caffe Vita coffee, other drinks, an array of fresh pastries and sweets, and healthy, locally-prepared breakfast items. The North Star Cafe serves breakfast and lunch and features a rotating menu of regional and international entrées, gourmet pizza and burgers, and a selection of vegetarian and dietary-friendly options. Both venues feature local, sustainable ingredients. The Espresso Lounge can be opened for special events, and Food Services offers special event catering services.
Housing
(206) 934-3641

On-campus housing is not available. However, a bulletin board lists various accommodations that are available in the local area. Call if you need housing or if you have a room or apartment available for students to rent.

Safety & Security
(206) 934-3636
northseattle.edu/safety

The well-being and safety of students are of utmost importance. The office provides security services, maintains a campus crime log and provides notices of possible threats. In the event of an on-campus crime, serious accident or injury, students should call 911 first, and then notify campus security. Contact the office for non-life threatening incidents or injuries as well. Campus pay phones are programmed for one-button, free calls to security and 911.

See page 42 for additional information on personal safety.

Student Clubs
(206) 934-3641
studentleadership.northseattle.edu/clubs

Clubs provide students with opportunities to develop leadership skills and to promote personal and intellectual growth. Participation provides experience in planning, organizing, and working in teams. For information about student clubs, see the website or visit the Student Leadership and Multicultural Programs office located on the north end, ground floor of the College Center building.

Student Administrative Team (SAT)
(206) 934-3642
studentleadership.northseattle.edu

The Student Administrative Team (SAT) serves as North Seattle College’s executive student government. SAT advocates for the student body by working with faculty, staff and administration to ensure that student needs and concerns are addressed. SAT, including the Student Body President, also provides leadership and daily support to the 7 Student Boards:

- Student Fee Board
- Events Board
- Student Cabinet
- Research and Advocacy Board
- Communications Board
- Sustainability Board
- Club Council

Each board includes students who work with college staff, faculty, and administration on behalf of their constituents, the student body. Students who serve on a board or SAT, receive an hourly wage, training and mentoring designed to strengthen their leadership skills and to provide a foundation for success.

Student Insurance

Brochure information on student injury and sickness insurance is available at the Cashier’s Office (206-934-3627) or at northseattle.edu/cashiers-office/student-insurance.

See page 37 for information on Student Insurance.

Student Leadership & Multicultural Programs
(206) 934-3642
https://studentleadership.northseattle.edu/

The department of Student Leadership and Multicultural Programs (SLMP) administers North’s Student Leadership program, which consists of approximately forty paid Student Leaders, and collaborates with college faculty, staff, and the administration to develop programming that engages and represents our diverse student body. SLMP promotes and aids in creating a campus climate and culture that respects and celebrates diversity.

SLMP provides leadership training and advising for Student Leaders, as well as a wide variety of cultural, educational, and leisure programs that fuel a vibrant and inclusive campus life. SLMP is committed to supporting students from all backgrounds, experiences, and levels of academic preparation.
Transportation & Parking

(206) 934-0060
northseattle.edu/transportation

North is served by several Metro bus routes. Carpooling, walking, busing, biking, and van pooling are encouraged. Students registered for 10 or more credits are eligible to purchase a discounted ORCA transit pass issued by the college through the Cashier's Office. ORCA passes may be used to ride Community, Everett, Kitsap, Metro, Pierce and Sound Transit systems. Call (206) 934-3646 for more information.

Parking

(206) 934-3636

Students may purchase a parking permit 30 days prior to start of the quarter online at seattlecolleges.edu/parkingpermit. Carpool parking is also available. Campus speed limit is 15 mph. Purchase daily parking at Cashier’s Office or permit machines on the parking lots.

The Roy Flores Wellness Center / Student Recreation

(206) 934-3631
Information Line (206) 934-3649
northseattle.edu/wellness-center

The Roy Flores Wellness Center offers a variety of fitness activities such as yoga, Pilates, resistance training, and cardiovascular training. The facility also includes a well-equipped strength and conditioning room, a running track, and gym for playing basketball or volleyball. The Wellness Center fee of $1.25 per credit up to 10 credits entitles students to use the facility and to participate in free, drop-in sessions. The current schedule is available on the website.

Alumni Association

(206) 934-3604
www.facebook.com/nsccalumni

The Alumni Association of North Seattle College was established to build and sustain meaningful relationships with our former students in order to foster the success of current and future students. All students who have attended the college, even if they did not complete a certificate or degree, are considered alumni. The goals of the Alumni Association are to provide alumni recognition; encourage participation in lifelong learning; offer professional development and networking opportunities; establish volunteer opportunities, including mentorship for current students; and gather feedback to enhance college programs and services. Membership is free. Join online at nsceducationfund.org/alumni.

North Seattle College Education Fund

(206) 934-3604
NSCCEducationFund@seattlecolleges.edu
northseattle.edu/edfund

A non-profit 501(c)(3) organization guided by a volunteer board of directors comprised of community and business leaders, the Education Fund provides support for North students through scholarships and emergency assistance, and for faculty and staff through professional development grants. The Education Fund also assists with the purchase of classroom equipment and supports other college programs that benefit students. Student scholarships are awarded annually and faculty mini-grants are awarded on a quarterly basis.
Programs of Study at North

General Education

General Education is college-level work that introduces students to the content and methods of major areas of knowledge including humanities and fine arts, the natural sciences, mathematics, and the social sciences. General Education emphasizes the following outcomes:

- Attitudes necessary to function as a citizen and lifelong learner
- Intellectual skills required for college level inquiry and competence
- Knowledge and awareness of the complex world in which we live

The purpose of General Education is to provide educational depth and breadth through development of essential skills in reading and writing, research and information literacy, critical thinking, problem-solving, understanding individuals and cultures, creative expression, and quantitative and scientific reasoning. These transferable skills support students as they continue in higher education, move forward in careers, and continue the process of lifelong learning.

North Seattle College Learning Outcomes

North serves a diverse student population with a wide variety of education backgrounds and goals. As a learning community, we foster and promote the following outcomes:

KNOWLEDGE
- facts, theories, perspectives and methodologies within and across disciplines

INTELLECTUAL AND PRACTICAL SKILLS, INCLUDING
- critical thinking and problem-solving
- communication and self-expression
- quantitative reasoning
- information literacy
- technological proficiency
- collaboration: group and team work

PERSONAL AND SOCIAL RESPONSIBILITY, INCLUDING
- civic engagement: local, global, and environmental
- intercultural knowledge and competence
- ethical awareness and personal integrity
- lifelong learning and personal well-being

INTEGRATIVE AND APPLIED LEARNING
- synthesis and application of knowledge, skills, and responsibilities to new settings and problems

Associate of Arts Degree Learning Outcomes

See page 5.

Associate of Science Degree Learning Outcomes

Students completing the Associate of Science degree should:

- Recognize the interdisciplinary nature of the sciences and use scientific inquiry to critically evaluate a proposal, claim, process or theory.
- Generate significant questions about the physical world and use the tools of science or engineering to design and conduct an experiment; draw conclusions based on a systematic collection and analysis of qualitative and quantitative data.
- Recognize and interpret the meaning of quantitative and mathematical symbols and apply appropriate logic, tools and processes to make meaningful decisions and solve problems. Utilize multiple representations, including graphical, symbolic, numerical and narrative, to analyze and solve problems.
- Obtain, comprehend, analyze, evaluate, internalize and act upon knowledge in order to understand and communicate complex scientific systems and reasoning.
- Use appropriate documentation to exchange spoken, written and visual information in order to communicate effectively and to participate as an effective team member within the scientific community and other appropriate settings.
- Apply scientific or technical knowledge and practice to a variety of disciplines in order to understand issues, solve problems and engage in responsible practices.
- Apply modes of inquiry from the social sciences to issues and problems found in individuals’ lives and work, in their local, national and global communities, and to find effective and ethical solutions to society’s problems and challenges.
- Explore, interpret and represent human experience through the arts.
North Seattle College offers a full range of college transfer courses that apply toward a four-year program of study. In addition to the Associate of Arts (A.A.) and Associate of Science (A.S.) degrees, North also offers an Associate in Business (A.B.) degree, and an Associate of Fine Arts (A.F.A.) degree in Art. For detailed information on the A.A. degree, see pages 7-9.

Students are encouraged to complete a two-year degree program for greater ease of transfer to a four-year institution, but can take individual classes for transfer. It is strongly recommended that students confer with an academic advisor to ensure course transferability.

Students planning to earn an A.A., A.F.A., A.B. or A.S. degree must meet minimum standards of preparation. Those whose records and test scores indicate a need for additional preparation may be required to complete preliminary work in the college preparatory program.

College transfer courses are offered in several disciplines, including:

- Accounting
- Anthropology
- Art
- Astronomy
- Biology
- Business
- Chemistry
- Communication
- Computer Science
- Earth Science
- Economics
- English
- Environmental Science
- General/Biological Science
- Geography
- Geology
- Health
- History
- Humanities
- Journalism
- Mathematics
- Music
- Nutrition
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- Theater
- World Languages

### Associate of Arts Degree (A.A.)

**Direct Transfer Agreement**

This degree is a 90-credit transfer degree that fulfills the general education requirements for most four-year degrees in arts and sciences. To earn the A.A. degree, students must achieve a cumulative GPA of 2.0 or better in courses numbered 100 and above, complete at least 15 credits at the Seattle College (Central, North or South) awarding the degree and meet all of the degree requirements. Students should contact an advisor to develop their individual programs of study.

*See pages 7-9 for college transfer course requirements for A.A. or A.S. degree.*

### Associate of Science Transfer (A.S.) Degree

This degree is intended for students who wish to transfer as juniors to four-year institutions in the state of Washington. A.S. degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA. At least 15 college level credits must be earned at the Seattle College awarding the degree.

Two different study options are offered:

1. biological sciences, environmental/resources sciences, chemistry, geology and earth sciences
2. engineering, computer science, physics and atmospheric science.

Course requirements and GPAs vary from one transfer university to another. Contact an advisor.

### Associate of Science (A.S.)

The Associate of Science (A.S.) is a direct transfer agreement. However, there are certain major areas of study in which the student may not be able to take all the courses necessary to transfer with junior standing. Please contact an advisor for more information on this degree program.

A.S. degree requirements include satisfactory completion of at least 90 approved credits with a 2.0 cumulative GPA. At least 15 college level credits must be earned at the Seattle College awarding the degree.
Associate in Business (A.B.–DTA)

Direct Transfer Agreement

Workforce Instruction Division
(206) 934-3730

This business degree is designed for students who plan to transfer in the area of business studies. It will satisfy the lower division general education (core) requirements and the lower division business requirements at Washington’s public four-year colleges and universities.

This degree shall be granted only to students who have completed 90 college level credits with a minimum cumulative grade point average of at least 2.0 with at least 15 college credits taken at North.

GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 102</td>
<td>Composition II</td>
<td>5</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Applied Mathematics</td>
<td>5</td>
</tr>
<tr>
<td>ECON&amp; 201</td>
<td>Micro Economics</td>
<td>5</td>
</tr>
<tr>
<td>ECON&amp; 202</td>
<td>Macro Economics</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 116</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 141</td>
<td>Precalculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 148</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 151</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>VISUAL, LITERARY AND PERFORMING ARTS</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>ECON&amp; 201</td>
<td>Micro Economics</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 116</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 141</td>
<td>Precalculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 148</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 151</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>INDIVIDUAL, CULTURES AND SOCIETIES</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>BUS&amp; 116</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 141</td>
<td>Precalculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 148</td>
<td>Business Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 151</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH &amp; 124</td>
<td>Calculus w/Geometry II</td>
<td>5</td>
</tr>
<tr>
<td>THE NATURAL WORLD</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>ACCT&amp; 201</td>
<td>Financial Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT&amp; 202</td>
<td>Financial Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT&amp; 203</td>
<td>Managerial Accounting</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 201</td>
<td>Business Law</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 210</td>
<td>Business Statistics</td>
<td>5</td>
</tr>
<tr>
<td>BUSINESS COURSES</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>U. S. CULTURES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDITS</td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>

Note: While many Washington state universities accept transfer of this degree, each has individual requirements and/or acceptable course substitutions needed for their specific programs. Also, admission to many business schools is competitive and higher grades are often required. It is essential to learn the requirements of your transfer school and to consult Advising Services.

Fine Arts in Art

Arts, Humanities and Social Sciences
(206) 934-3709

A Certificate of Fine Arts is offered in Art, Jewelry Design and Drama, and an Associate of Fine Arts degree is offered in Art and Music.

Candidates for the Associate of Fine Arts degree in Art must complete a minimum of 100 college transfer-level courses (numbered 100 and above) with a grade point average (GPA) of 2.0 or higher. At least 15 credits must be earned at North Seattle College (NSC). The last quarter must be in residence at NSC.

The Associate of Fine Arts (AFA) degree certifies completion of approved course work. It is suitable for students currently working in art but does not currently transfer with the same transfer rights to area colleges as the NSC Associate of Arts (AA) degree. However, it is accepted by Evergreen State College and some other colleges with transfer rights similar to those of the AA. Students seeking a Bachelor of Arts or a Bachelor of Fine Arts should consult NSC AA degree requirements, their art advisor and the university in which they intend to enroll about equivalency requirements. Since university requirements for admission may change annually, the students must keep themselves informed of these changes.

The A.F.A.: Art requires General Education courses as follows: ENGL& 101 and 102; and one of the following computation courses: MATH& 107 or above, BUS 116, ACCT 110 or above. Students must also complete 15 credits in the three areas of Knowledge: 5 - from Visual, Literary, and Performing Arts other than ART courses; 5 - from Individuals in Culture and Society; and 5 - from the Natural World. There are also 45 required ART credits and a minimum of 25 ART electives. Some of the art courses are offered only once a year, so students should consult the annual schedule (e.g. ART 251, Fall; ART 252, Winter; ART 253, Spring; ART 101, Spring; ART 112 and ART 205, 206, 207, Winter and Spring but not Fall). During the final quarter students must submit a portfolio of work of at least eight pieces for evaluation. The art faculty will provide exact details on portfolio preparation and will review and vote on acceptability toward the degree.

All A.F.A. students in art must have an art advisor to plan their program. The art advisor is Kelda Martensen. Some of the art courses are offered only once a year, so students should consult the annual schedule (e.g. ART 251, Fall; ART 252, Winter; ART 253, Spring; ART 101, Spring; ART 112 and ART 205, 206, 207, Winter and Spring but not Fall). All studio art courses must be taken in sequence; however, art history courses may be taken in any order. Substitutions may be made only with the approval of the art faculty and Arts, Humanities & Social Sciences Dean and requests for such substitutions must be made on the request for waiver form.

Listed on the following page is a possible course sequence for the A.F.A. degree in Art; however, it may be necessary to take course out of sequence as the quarterly schedule dictates. For more information about program or the annual schedule contact the Humanities Division at 934-3709.
## Associate of Fine Arts Degree in Art (A.F.A)

### REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Design</td>
<td>5</td>
</tr>
<tr>
<td>ART 102</td>
<td>Design</td>
<td>5</td>
</tr>
<tr>
<td>ART 111</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 112</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 121</td>
<td>Introduction to Printmaking</td>
<td>5</td>
</tr>
<tr>
<td>ART 210</td>
<td>Digital &amp; Graphic Art - Photoshop + Illustrator</td>
<td>5</td>
</tr>
<tr>
<td>ART 251</td>
<td>Art History</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 252</td>
<td>Art History</td>
<td>5</td>
</tr>
</tbody>
</table>

Art history courses are taught at Seattle Central or other college.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 253</td>
<td>Survey of Western Art: Renaissance-Present</td>
<td>5</td>
</tr>
</tbody>
</table>

Art history courses are taught at Seattle Central or other college.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 290</td>
<td>the Art Business</td>
<td>5</td>
</tr>
</tbody>
</table>

### GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual, Literary &amp; Performing Arts course</td>
<td>non-Art</td>
</tr>
<tr>
<td>Individuals, Cultures &amp; Societies course</td>
<td></td>
</tr>
<tr>
<td>Natural World, the</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp; 101 English Composition I</td>
<td></td>
</tr>
<tr>
<td>ENGL&amp; 102 Composition II</td>
<td></td>
</tr>
</tbody>
</table>

Compute Course credits

Select five credits from courses below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping I</td>
</tr>
</tbody>
</table>

*Following can be substituted:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT course higher than ACCT 110</td>
<td></td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
</tr>
<tr>
<td>MATH&amp;107</td>
<td>Math in Society</td>
</tr>
</tbody>
</table>

*Following can be substituted:*

Math course higher than MATH& 107

### GENERAL EDUCATION CREDITS

30

### ART ELECTIVES GROUP 1: 2-DIMENSIONAL ART

Approved Art Electives must be taken in sequence; however, completion of a sequence is not required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 110</td>
<td>Visualizing Science and Technology</td>
</tr>
<tr>
<td>ART 113</td>
<td>Drawing</td>
</tr>
<tr>
<td>ART 114</td>
<td>Introduction to Digital Photography I</td>
</tr>
<tr>
<td>ART 115</td>
<td>Introduction to Digital Photography II</td>
</tr>
<tr>
<td>ART 121</td>
<td>Introduction to Printmaking</td>
</tr>
<tr>
<td>ART 122</td>
<td>Introduction to Printmaking-Intermediate</td>
</tr>
<tr>
<td>ART 123</td>
<td>Continuing Printmaking: Monotype and Monoprint</td>
</tr>
<tr>
<td>ART 201</td>
<td>Painting</td>
</tr>
<tr>
<td>ART 202</td>
<td>Painting</td>
</tr>
<tr>
<td>ART 203</td>
<td>Painting</td>
</tr>
<tr>
<td>ART 204</td>
<td>Mural Art</td>
</tr>
<tr>
<td>ART 214</td>
<td>Digital &amp; Graphic Art - Intermediate</td>
</tr>
<tr>
<td>AR 215</td>
<td>Adv. Computer Art II</td>
</tr>
</tbody>
</table>

**GROUP 1 - 2-DIMENSIONAL ART**

**MINIMUM 5**

### ART ELECTIVES GROUP 2: 3-DIMENSIONAL ART

Approved Art Electives must be taken in sequence; however, completion of a sequence is not required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Sculpture</td>
</tr>
<tr>
<td>ART 212</td>
<td>Sculpture</td>
</tr>
<tr>
<td>ART 213</td>
<td>Sculpture</td>
</tr>
<tr>
<td>ART 221</td>
<td>Ceramic Art</td>
</tr>
<tr>
<td>ART 222</td>
<td>Ceramic Art</td>
</tr>
<tr>
<td>ART 223</td>
<td>Ceramic Art</td>
</tr>
<tr>
<td>ART 281</td>
<td>Jewelry Design I</td>
</tr>
<tr>
<td>ART 282</td>
<td>Jewelry Design II</td>
</tr>
<tr>
<td>ART 283</td>
<td>Introduction to Alloying and Jewelry Casting</td>
</tr>
<tr>
<td>ART 284</td>
<td>Bench Techniques and Practices</td>
</tr>
<tr>
<td>ART 285</td>
<td>Metal Techniques for Small Scale Sculpture</td>
</tr>
</tbody>
</table>

**GROUP 2 - 3-DIMENSIONAL ART**

**MINIMUM 5**

### ELECTIVES BETWEEN GROUP 1 AND GROUP 2

**MINIMUM 25**

### TOTAL PROGRAM CREDITS

**MINIMUM 100 + PORTFOLIO**

---

## Special Opportunities for Upper Division Courses

**Eastern Washington University at North**

(509) 359-6254 (EWU Dept of Engineering & Design)

www.ewu.edu/CSHE/Programs/Engineering/NSCCEE

EWU and North offer an ABET-accredited Bachelor of Science degree in Electrical Engineering on the North campus. Coursework is taught by faculty members from both schools through a series of distance education and regular classroom courses that include hands-on laboratories. To qualify, students must apply directly to EWU.

**Washington State University Online**

(206) 934-7306 North Advising

North and Washington State University (WSU) Online offer co-admission to North students who have earned an associate degree within 16 consecutive quarters and meet the minimum cumulative GPA. WSU Online offers a number of degrees that are earned completely through online classes.

**Western Washington University at North**

(206) 934-3719

http://wce.wwu.edu/teop/north-seattle

Western Washington University's Teacher Education Outreach program offers the following evening programs at North Seattle College: Elementary Teacher Education, B.A.E., with Special Education major and Elementary Teacher Certification.
Application Development
Math and Science Division
(206) 934-7025

The Bachelor of Applied Science in Application Development at North Seattle College provides a bachelor’s degree opportunity for students who already have Information Technology degrees (IT) such as Associate of Applied Science (A.A.S.) or students who are interested in the programming field and have at least two years’ worth of college credit. The B.A.S. degree focuses on the industry relevant education and skills needed by software developers and programmers who develop, create, and modify general computer applications software, mobile applications, or specialized utility programs. Students learn to analyze user needs and develop software solutions and design or customize software. The emphasis is on solving real world application problems through industry-based projects that meet customer needs and emerging software trends.

A minimum of 2.5 cumulative GPA and a 2.5 GPA or higher in all IT courses. Any General Education Requirements taken as part of the associate degree can be transferred in to satisfy requirements. Contact the program office for further information.

Application Development
Bachelor of Applied Science Degree (B.A.S.)

DEGREE REQUIREMENTS
Associate of Applied Science (A.A.S. or A.A.S.-T) or equivalent degree preferably in an Information Technology-related field such as programming, database development or web development.
Early Childhood Education
Workforce Instruction Division
(206) 934-3783

The Early Childhood Education B.A.S. (ECE B.A.S.) degree is designed for students who desire to work as a lead teacher or administrator in an early learning setting, as well as those who already work in the field and seek ongoing professional development. The ECE B.A.S. degree is an extension of the Early Childhood Education Associate of Applied Science (A.A.S.) degree, which is built around the statewide Stackable Certificates in Early Childhood Education. However, students with A.A. or A.A.S. degrees in other fields, or bachelor’s degrees outside of early childhood education will be qualified to enter the baccalaureate degree program, potentially with some additional coursework.

Early Childhood Education
Bachelor of Applied Science Degree (B.A.S.)

PREREQUISITES
ECED& 107 Health, Safety, and Nutrition .................. 5
ECED& 160 Curriculum Development .......................... 5
ECED& 170 Environments-Young Child ....................... 3
EDUC& 115 Child Development .............................. 5
EDUC& 130 Guiding Behavior ................................. 3
EDUC& 150 Child Family and Community .................... 3
INFO  300 Information Literacy for Undergraduate Research .................. 2

TECHNICAL SPECIALTY COURSES
ECE 305 Early Childhood Education Approaches and History .................. 3
ECE 310 Cognition and General Knowledge .................... 5
ECE 315 Language, Literacy and Communication ................ 5
ECE 320 Creative Expression ................................. 3
ECE 350 Practicum: Interactions ............................... 4
ECE 355 Anti-Bias Education ................................. 3
ECE 405 Partnership and Collaboration in Early Care and Education .................. 3
ECE 410 Inclusive Early Childhood Education .................. 4
ECE 415 Children and Media ................................. 3
ECE 420 Social and Emotional Foundations .................... 5
ECE 430 Linguistically Diverse Learners ....................... 5
ECE 450 Child Development and Assessment .................... 5
ECE 480 Leadership and Professional Community ................ 5
ECE 490 Capstone ............................................ 5

TECHNICAL SPECIALTY CREDITS 60

GENERAL EDUCATION
ENGL& 101 English Composition I ......................... 5
   ENGL& 101 is counted toward general education requirements.
   Must be eligible for ENGL& 101 through English Placement Exam or completion of ENGL 097/ENGL 098.
ENGL& 102 Composition II .................................. 5
   Following can be substituted:
   ENGL&235 Technical Writing ............................... 5
Visual, Literary and Performing Arts .......................... 15
U.S. Cultures & Global Studies ................................ 10
   OR:
   Individual, Cultures, and Societies ......................... 10
   Natural World, the ........................................ 10
   One course must include lab.
Quantitative/Symbolic Reasoning .............................. 5
GENERAL EDUCATION CREDITS 60

ELECTIVES
Any 100 and 200 level college credits not counted as General Education credits (commonly fulfilled by EDUC/ECED courses from associate degree).

ELECTIVES CREDITS 60

TOTAL PROGRAM CREDITS 180

International Business
Workforce Instruction Division
(206) 934-3730

The International Business B.A.S. (IB B.A.S.) degree is designed for students who desire to work in any organization that does business internationally, as well as those who already work in the field. It is designed to leverage a student’s already existing business, accounting, or logistics coursework and experience, and add upper division courses that specifically prepare the student to work in an international arena. The IB B.A.S. degree is an extension of the General Business Associate of Applied Science Transfer (A.A.S.-T) degree, and the Accounting Associate of Applied Science Transfer (A.A.S.-T) degree. However, students from several different associate degree programs will be qualified to enter the baccalaureate degree program.
International Business
Bachelor of Applied Science Degree (B.A.S.)

DEGREE REQUIREMENTS
A.A., A.S., A.B., A.A.S., A.A.S.-T degree earned with a minimum 2.0 GPA

PREREQUISITES
Any General Education Requirements taken as part of the associate degree can be transferred in to the requirements below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT&amp; 201</td>
<td>5</td>
<td>Principles of Accounting I</td>
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GENERAL EDUCATION COURSES

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GENERAL EDUCATION CREDITS

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<tr>
<td>MATH&amp; 151</td>
<td>5</td>
<td>Calculus I</td>
</tr>
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<td>Visual, Literary and Performing Arts</td>
<td>10</td>
<td>Any two World Language courses. See advising for course list.</td>
</tr>
<tr>
<td>Individual, Cultures and Societies</td>
<td>5</td>
<td>One course. See advising for course list.</td>
</tr>
<tr>
<td>Natural World, the</td>
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<td>One of any physical, biological, or earth science 5-credit lab class. See advising for course list.</td>
</tr>
<tr>
<td>U.S. Cultures</td>
<td>5</td>
<td>Global Studies (any U.S. or GS designated course) See advising for course list.</td>
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ELECTIVES

Total required Elective credits includes 25 credits from Program Prerequisites as listed and notated above, excluding ENGL& 101 and 35 credits as noted below.

<table>
<thead>
<tr>
<th>Course</th>
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ELECTIVES CREDITS

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<tr>
<td>Electives</td>
<td>35</td>
<td>Any 100 and 200 level college credits not counted as General Education credits. (commonly fulfilled by accounting/business courses from associate degree)</td>
</tr>
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TOTAL PROGRAM CREDITS

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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>Electives</td>
<td>60</td>
<td>Any 100 and 200 level college credits not counted as General Education credits. (commonly fulfilled by accounting/business courses from associate degree)</td>
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<tr>
<td>TOTAL PROGRAM CREDITS</td>
<td>180</td>
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Continuing Education Classes
(206) 934-3705
learnatnorth.org
Continuing Education is committed to enriching lives by:
- Expanding Horizons
- Serving the Community
- Offering Opportunities for Lifelong Learning
Continuing Education encourages lifelong learning through non-credit classes for fun, professional development and personal enrichment. Class offerings change quarterly and cover a range of interests: computer skills, design, business, arts, cooking, fitness, entertainment, language, cultural experiences and more. All Continuing Education classes qualify as clock hours for teachers and CEUs for au pairs.

Customized Business Training
(206) 934-6075
Customized training allows a company to respond to the need to upgrade and expand the technical and professional skills of its employees. Classes are provided at the company’s site or at North.

Bridge to College Programs

Developmental Education
English, Mathematics and Human Development Courses
English (206) 934-7309 / Math (206) 934-3746
northseattle.edu/programs/pre-college-english
northseattle.edu/programs/pre-college-math
Many students entering college or returning after some time away from studies need additional work to prepare for college-level courses. For these students, the Seattle Colleges offer a series of courses in English, mathematics and human development. Placement in one or more of these courses is determined by performance on placement tests required for admission to the specific college program or courses. Courses in this category are those numbered below 100. They are described in the course description sections for English (ENGL), mathematics (MATH) and human development (HDC).
Career and College Ready

English as a Second Language
(206) 934-7303
northseattle.edu/programs/esl
ESL classes, levels 1-4, are offered to help non-native speakers communicate in English and increase their understanding of American culture. Conversation, pronunciation, reading, writing, grammar, and digital literacy are taught with special emphasis on the English skills needed for survival and employment. These non-credit courses cost $25 per quarter (subject to change). Course descriptions are found under ESL. When students test high enough, they can move on to Transitional ESL, levels 5 and 6, which concentrate on college-preparation skills.

Concurrent High School/College Programs

Running Start
(206) 934-3682
northseattle.edu/running-start
Running Start is a program that allows qualified high school juniors and seniors to register for college level courses while remaining enrolled at their local high school. Full to partial tuition is paid for by the state; students pay mandatory fees, buy their own books, and provide their own transportation. To qualify students must take a placement test and be ready for college level coursework. As a dual enrollment program, students receive both high school and college credit, thus accelerating their progress through the education system. Running Start is a good option for high school students who are ready to start college early.

See page 22 for more information.

Pre-College Programs

Adult Basic Education
(206) 934-7303
northseattle.edu/programs/abe-ged
Adult Basic Education (ABE) classes are for adults who already know English but wish to improve their basic reading, writing, and math skills. Students can start at a level matching their current skills and progress at their own pace. Classes in basic math and reading, writing and communication skills are designed to help adults become more self-sufficient, improve their job prospects, prepare for the General Education Development (GED) or qualify for entry into post-secondary education programs. Course descriptions are listed under ABE. Classes are non-credit. Tuition is low, currently $25 per quarter (subject to change).

High School Completion
(206) 934-7303
northseattle.edu/programs/high-school-completion
For students who have not completed work for a high school diploma, High School Completion offers the opportunity to earn the diploma through two options: the Standard High School Diploma and the Associate Degree Conversion Diploma. Students planning to work toward a high school diploma should meet with the High School Advisor for information.

See page 24 for details and possible tuition waiver for high school completion.
**High School 21+**

An alternative to the GED, High School 21+ (HS 21+) is a competency-based program that adds rigorous high school level education and training to Basic Skills classes so that students can complete high school while transitioning into college or Professional/Technical programs at North. Students who complete this program receive an actual high school diploma, not an equivalency.

With HS 21+, students can take ABE, GED, HSC, Advanced ESL, I-Best, and college level classes and receive high school credit for them. HS 21+ students also take portfolio classes in such subjects as Fine Arts, Health, Physical Education, and Washington State History, which allows them to document and use prior learning in these fields while working at their own pace. Students can also use skills learned on the job or in the military to receive high school credits.

HS 21+ students work closely with North’s ABE advisors to review high school transcripts (foreign transcripts accepted) as well as life and work experience. Together they work to craft an individualized educational plan to receive the high school diploma as a part of a customized pathway to college and careers. Tuition is $25 per quarter.

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**International Programs**

(206) 934-3672
Fax (206) 934-3794
international@seattlecolleges.edu
https://ip.northseattle.edu

North Seattle College serves over 1,000 students from 50 countries who study in North’s Intensive English Program, career training, or college transfer programs. Many are also active in campus activities and organizations. New students must first take the College Success placement test to see if they qualify for college level courses. Students who have TOEFL or IELTS scores must send them directly to the International Programs Office.

A three-day orientation program prepares students to begin a successful academic experience. The International Programs office is dedicated to helping students succeed in their studies and adjust to life in Seattle, offering assistance with admissions, academic and immigration advising, scholarships and housing.

Students study at different levels based on their English proficiency. Quarterly classes develop skills in conversation, listening, reading, writing, grammar, study skills, note-taking, vocabulary and American culture.

Advanced students may take regular college classes. Upon successful completion of the Intensive English Program (IEP) or testing into college-level English, students may enter one of the college’s academic or technical programs.

*See page 27 for more information.*

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**eLearning/Distance Education**

(206) 934-3738
https://elearning.northseattle.edu

North offers many credit courses that do not require any campus visits. Online classes are designed so students can keep in close contact with their instructors using virtual bulletin boards, discussion rooms and/or email. Hybrid courses blend on-campus and “virtual” classroom instruction, saving travel time and expense. Student/teacher ratios in these classes are the same as classes held on campus. All distance education classes transfer the same as on-campus credit classes. Students can earn an A.A. degree completely online or with many fewer campus visits.

*See page 25 for complete information on all eLearning options.*

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**Travel/Study Abroad**

(206) 934-3672
northseattle.edu/programs/study-abroad

Students interested in Study Abroad should contact the International Programs Office to learn about programs and scholarship opportunities.
Worker Retraining Program

(206) 934-3787
northseattle.edu/workforce-education

Worker retraining at North Seattle College is a package of services, opportunities, and specialized instructional programs to help you return to work as soon as possible. A person may be eligible for Worker Retraining Assistance if he or she:

- Is unemployed and is collecting Washington State Unemployment Benefits
- Has exhausted unemployment benefits in the past two years
- Has been working in the home, experiences a significant loss of income and needs to re-enter the work force
- Has received a WARN letter
- Has closed a business due to economic downturn
- Is working in a not-in-demand job
- Has lost a job because of a disaster
- Separated from the military with an honorable discharge within the last 24 months
- Suffered a loss of more than 50% of household income due to a divorce, separation, or death of a spouse or partner within the last 24 months

Worker Retraining benefits include:

- Priority registration
- Tuition assistance career planning services
- High wage, high demand training programs
- Tutoring assistance
- Employment Security staff on campus
- Assistance with TAA and CAT/TB paperwork
- Liaison to other agencies, programs and funding

See page 29 for additional information.
North Seattle College offers degrees and certificates in more than 40 workforce education areas. The programs vary in length from one to seven quarters of full-time coursework and are designed to prepare students for careers and/or to expand skills in their career area. Several professional/technical programs offer short-term training certificates. Students may build skills and add certificates to progress in their fields. North Seattle College, including these programs, is accredited by the Northwest Commission of Colleges and Universities.

**Accounting**

Workforce Instruction Division
(206) 934-3730

### Accounting Achievement Short-Term Certificate

This certificate provides students with a basic understanding of accounting principles and procedures, and computers and accounting software.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

#### TECHNICAL SPECIALTY COURSES

| ACCT 110 | Introduction to Accounting/Bookkeeping | 5 |
| ACCT 131 | QuickBooks | 5 |
| BUS 169 | Using Computers in Business | 5 |

**TOTAL PROGRAM CREDITS** 15

### Accounting Associate of Applied Science Degree (A.A.S.)

This two-year program prepares students for immediate and future accounting supervisory positions. The program includes accounting and business skills as well as college transfer and supporting courses designed to strengthen the students' self-assurance and leadership qualities.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

#### TECHNICAL SPECIALTY COURSES

| ACCT 110 | Introduction to Accounting/Bookkeeping | 5 |
| ACCT 131 | QuickBooks | 5 |
| ACCT 201 | Principles of Accounting I | 5 |
| ACCT 202 | Principles of Accounting II | 5 |
| ACCT 203 | Principles of Accounting III | 5 |
| ACCT 255 | Individual Income Tax | 5 |
| ACCT 257 | Business Tax Accounting | 5 |
| ACCT 261 | Accounting Information Systems | 5 |
| ACCT 267 | Not-for-Profit Financial Management | 5 |
| ACCT 268 | Computerized Accounting: Advanced QuickBooks | 5 |
| ACCT 271 | Ethics in Accounting | 5 |
| CWE 110 | Internship | 3 |

**TECHNICAL SPECIALTY CREDITS** 58

### RELATED INSTRUCTION

| BUS 124 | Excel for Business | 5 |
| BUS 131 | Integrated Communications in the Workplace | 5 |
| BUS 169 | Using Computers in Business | 5 |
| BUS 200 | Law and Society | 5 |

**OR**

| BUS& 201 | Business Law | 5 |

| BUS 210 | Business and Economic Statistics | 5 |
| BUS 236 | Interpersonal Communication for the Workplace | 5 |

**ELECTIVE** Five credits from list of approved U.S. Cultures or Global Studies courses | 5

**RELATED INSTRUCTION CREDITS** 35

**TOTAL PROGRAM CREDITS** 93

### Accounting Associate of Applied Science Transfer Degree (A.A.S.-T)

The Associate of Applied Science–Transfer (A.A.S.-T) degree is built upon technical skills for job preparation but also includes college-level general education components common to all the A.A.S.-T degrees. The Accounting A.A.S.-T degree is designed as a transfer program for those interested in an applied baccalaureate degree and, in particular, for students interested in the Bachelor of Applied Science (B.A.S.) International Business degree program here at North Seattle College.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement. Please consult a college advisor and/or the program coordinator.

#### PREREQUISITES

Individual courses may have prerequisites.

#### TECHNICAL SPECIALTY COURSES

| ACCT& 201 | Principles of Accounting I | 5 |

**OR**

| ACCT 110 | Introduction to Accounting/Bookkeeping I | 5 |
| ACCT& 202 | Principles of Accounting II | 5 |

**OR**

| ACCT 120 | Introduction to Accounting/Bookkeeping II | 5 |

| ACCT 201 | Principles of Accounting III | 5 |
| ACCT 131 | QuickBooks | 5 |
| ACCT 255 | Individual Income Tax | 5 |
| ACCT 257 | Business Tax Accounting | 5 |
| BUS 124 | Excel for Business | 5 |
| BUS& 201 | Business Law | 5 |
| BUS 210 | Business and Economic Statistics | 5 |
| BUS 236 | Interpersonal Communication for the Workplace | 5 |
| ECON& 201 | Principles of Economics - Micro | 5 |
| ECON& 202 | Principles of Economics - Macro | 5 |

**Accounting/Business Electives (See list below)** | 10

**TECHNICAL SPECIALTY CREDITS** 70
Professional/Technical Programs

**North Professional/Technical Programs**

**Related Instruction**

- ENGL 101 English Composition ........................................... 5
- MATH 116 Applications of Math to Management, Life and Social Sciences ........................................... 5
- Natural World ..................................................................... 5
- U.S. Cultures or Global Studies ......................................... 5

**Related Instruction Credits** ........................................... 20

**Total Program Credits** .................................................. 90

**Approved Accounting/Business Electives**

ACCT 251 Intermediate Accounting I .................................... 5
ACCT 252 Intermediate Accounting II .................................... 5
ACCT 256 Taxation of Corporations and Partnerships .......... 5
ACCT 261 Accounting Information Systems ...................... 5
ACCT 265 Accounting for Not-For-Profit and Government Entities .................. 5
ACCT 267 Not for Profit Financial Management ................. 5
ACCT 268 Computerized Accounting: Advanced QuickBooks ......................................................... 5
ACCT 270 Cost Accounting .................................................... 5
ACCT 271 Ethics in Accounting ............................................. 5
ACCT 272 Fraud Examination .............................................. 5
ACCT 273 Introduction to Financial Crime ......................... 5
ACCT 274 Forensic Accounting ............................................ 5
ACCT 275 Auditing ............................................................. 5
BUS 112 Multi-Cultural Issues in the Workplace .............. 5
BUS 114 Introduction to Marketing ..................................... 5
BUS 118 Project Management and Overview ..................... 5
BUS 119 Leadership Management Skills ......................... 5
BUS 151 Introduction to Entrepreneurship ...................... 5
BUS 169 Using Computers in Business ............................ 5
BUS 186 Sustainable Business ........................................... 5
BUS 215 Introduction to International Business ............... 5
BUS 229 Project Management Tools, Techniques and Control ........................................... 5
BUS 230 Project Management I ........................................... 5
CMST 220 Public Speaking ................................................... 5

**Note:** Not all classes are offered every quarter, and many classes have prerequisites. Refer to the class schedule, the annual forecast, to the department, and to an advisor for efficient planning.

**Accounting Fraud Short-Term Certificate**

This certificate provides students with an overview of detection and prevention of financial fraud, financial abuse, and economic crime. Topics include money laundering, bribery, and kickback schemes, retail loss prevention, investment swindles, securities fraud and Ponzi schemes, health care and Medicare/Medicaid fraud, inventory fraud, insurance fraud, and other accounting fraud. The curriculum includes case studies and discussions on preventative methods, effective internal control, and corporate culture and ethics. Instructional material includes videos of actual financial crimes, interviews with perpetrators, record reconstruction, and presentations by experts.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

**Prerequisites**

ACCT 201 is required for ACCT 272 or ACCT 273. ACCT 201 may be taken concurrently with ACCT 272 or 273. ACCT 201 may be waived if the student receives instructor permission due to equivalent work experience.

**Technical Specialty Courses**

ACCT 272 Fraud Examination ............................................. 5
ACCT 273 Introduction to Financial Criminology ............. 5
ACCT 274 Forensic Accounting ......................................... 5

**Total Program Credits** .................................................. 15

**Accounting Office Assistant I Short-Term Certificate**

Accounting Office Assistant I Certificate provides the student with a basic understanding of accounting principles and procedures, business computer software, and computational skill building. The certificate is designed to provide foundational skill development and incremental course completion that can be applied to the Accounting Office Assistant II, the Bookkeeping Certificate in Accounting, the Computerized Accounting Technology Certificate, and the Associate of Applied Sciences Degree in Accounting. This is an I-BEST supported certificate.

**Prerequisites**

All prospective I-BEST students must attend an information/application session to receive permission to enroll.

**Technical Specialty Courses**

ACCT 110 Introduction to Accounting/Bookkeeping I ........................................... 5
BUS 115 Computational Skillbuilding .................................. 2
BUS 169 Using Computers in Business ............................ 5

**Total Program Credits** .................................................. 12

**Advanced Tax Preparation Certificate**

This certificate provides the student with an understanding of income tax law and procedures for individuals, corporations, and other entities. As part of the certificate program, the student prepares basic income tax returns for others.

**Technical Specialty Courses**

ACCT 110 Introduction to Accounting/Bookkeeping I ........................................... 5
ACCT 255 Individual Income Tax ........................................... 5
ACCT 256 Taxation of Corporations and Partnerships .......... 5
ACCT 257 Business Tax Accounting ..................................... 5
ACCT 258 Practical Income Tax Preparation ..................... 5
ACCT 259 Practical Income Tax Preparation II .................. 5
ACCT 264 Tax Research Gifts and Estates ......................... 5

**Total Program Credits** .................................................. 35
**Bookkeeping Assistant Certificate**

This certificate provides the student with a basic understanding of accounting principles and procedures, business computer software, computational skill-building, and specialized accounting software procedures. In addition, students will broaden their understanding of the bookkeeping/accounting field through real-world job shadowing experiences in the public and/or private sector. It is designed to provide foundational skill development and incremental course completion that can be applied to the Bookkeeping Certificate, Computerized Accounting Technology Certificate, and the Associate of Applied Science degree in Accounting.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>BUS 115</td>
<td>Computational Skill Building</td>
<td>2</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 131</td>
<td>QuickBooks</td>
<td>5</td>
</tr>
<tr>
<td>CWE 101</td>
<td>Portfolio, Job Search and Interviewing</td>
<td>2</td>
</tr>
<tr>
<td>-OR-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWE 102</td>
<td>Job Shadowing</td>
<td>2</td>
</tr>
<tr>
<td>BUS 124</td>
<td>Excel for Business</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

24

**Bookkeeping Certificate in Accounting**

This program prepares graduates for bookkeeping careers and general office employment. The program normally can be completed in four quarters. The curriculum contains instruction that enables students to acquire knowledge through content and methodology, to think critically, to formulate values and make decisions, and to appreciate and understand their own and other cultures. Course requirements outside the accounting department represent related instruction in support of skills and knowledge necessary in the accounting and general office fields. Please be aware that some of the courses may require prerequisites or instructor permission.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>-OR-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 120</td>
<td>Introduction to Accounting/Bookkeeping II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 201</td>
<td>Principles of Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 202</td>
<td>Principles of Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 131</td>
<td>QuickBooks</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 257</td>
<td>Business Tax Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 267</td>
<td>Not for Profit Financial Management</td>
<td>5</td>
</tr>
<tr>
<td>BUS 124</td>
<td>Excel for Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
<tr>
<td>CWE 110</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

43

**Certificate of Accountancy**

This certificate is designed for college graduates who are working toward meeting the educational requirements of the Washington State CPA Examination. Additional courses are necessary to fulfill the requirements to sit for the exam. The courses in this certificate are not considered to be an official statement of acceptability by the Washington State Board of Accountancy. Students should consult the State Board’s website for specific exam requirements. In addition, we strongly recommend that all CPA applicants complete a CPA review course to adequately prepare for the CPA Examination. See discovercpa.org for CPA Exam review providers.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

**PREREQUISITES**

ACCT&201, ACCT&202, ACCT&203, and ACCT 255

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 251</td>
<td>Intermediate Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 252</td>
<td>Intermediate Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 256</td>
<td>Taxation of Corporations, Partnerships, Estates, and Trusts</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 261</td>
<td>Accounting Information Systems</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 265</td>
<td>Accounting for Not-For-Profit and Govermental Entities</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 270</td>
<td>Cost Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 271</td>
<td>Ethics in Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 275</td>
<td>Auditing</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

40

**Computerized Accounting Technology Certificate**

The Computerized Accounting Technology Certificate is a four-quarter program designed to provide students with computerized accounting skills using widely-used accounting software. The program bridges the gap between manual and computerized accounting systems with students gaining hands-on experience and expertise with basic and mid-range accounting systems. This experience will provide graduates with viable entry into and/or advancement in the accounting job market with both large and small organizations.

**Note:** Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.
Professional/Technical Programs

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping I</td>
<td>5</td>
</tr>
<tr>
<td>-OR-</td>
<td>ACCT&amp; 201 Principles of Accounting I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 120</td>
<td>Introduction to Accounting/Bookkeeping II</td>
<td>5</td>
</tr>
<tr>
<td>-OR-</td>
<td>ACCT&amp; 202 Principles of Accounting II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 131</td>
<td>QuickBooks</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 257</td>
<td>Business Tax Accounting</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 261</td>
<td>Accounting Information Systems</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 267</td>
<td>Not for Profit Financial Management</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 268</td>
<td>Computerized Accounting: Advanced QuickBooks</td>
<td>5</td>
</tr>
<tr>
<td>ACCT TBD</td>
<td>Accounting class to be determined</td>
<td>5</td>
</tr>
<tr>
<td>CWE 110</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 115</td>
<td>Computational Skill Building</td>
<td>2</td>
</tr>
<tr>
<td>BUS 124</td>
<td>Excel for Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 230</td>
<td>Technical Writing</td>
<td>5</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS** 43

**Not-for-Profit Management Short-Term Certificate**

The Not-for-Profit Management certificate provides students with an overview of financial management in the not-for-profit sector. It is designed for those already working at a not-for-profit organization, and those accounting students who wish to work in this field.

Important topics covered include: the basic tools of financial management and financial analysis, computerized accounting simulations of real-world financial events, IRS Form 990 preparation, charitable giving and fundraising issues, internal control, ethics, and operational effectiveness.

**General Education Credits**

- U.S. Cultures: 5
- Communication: 5
- Quantitative/Symbolic Reasoning: 5
- Human Relations course: 5

**COMPLETE 90 CREDITS REQUIRED FOR DEGREE.**

**ELECTIVES**

Up to 20 elective credits may be taken as necessary to complete the 90 credits required for the degree.

**ELECTIVE CREDITS** 20

**TOTAL PROGRAM CREDITS** 90

---

**Allied Health**

**Workforce Instruction Division**

(206) 934-3730

North Seattle College offers an Associate of Applied Science degree (A.A.S.) in Allied Health Sciences for graduates of certificate programs in Medical Assisting, Practical Nursing, and Pharmacy Technician.

**Allied Health Sciences**

**Associate of Applied Science Degree (A.A.S.)**

**DEGREE CRITERIA INCLUDE**

- A NSC health occupation certificate with a minimum of 45 technical credits specific to that occupation. Graduates from similar programs at other Washington community colleges or accredited vocational-technical schools may also be candidates.
- Completion of specific technical courses, related General Education and related instruction.
- Completion of 90 credit hours.
- An overall grade point average of 2.0. Other requirements may be established by faculty or administrative policies.

Program Requirements For Medical Assisting, Pharmacy Technician & Practical Nursing:

**TECHNICAL SPECIALTY**

45 (minimum) - 60 (maximum) vocational-technical credits

**GENERAL EDUCATION**

Minimum of 25 credits in General Education or related instruction.

10 credits from the list of approved courses for the A.A. degree, which must include five credits from U.S. Cultures or Global Studies

- U.S. Cultures: 5
- Communication: 5
- Quantitative/Symbolic Reasoning: 5
- Human Relations course: 5

**GENERAL EDUCATION CREDITS** 25

**ELECTIVES**

Up to 20 elective credits may be taken as necessary to complete the 90 credits required for the degree.

**ELECTIVE CREDITS** 20

**TOTAL PROGRAM CREDITS** 90

**Emergency Department Technician Short-Term Certificate**

This certificate provides students with a general understanding of emergency department operations and prepares them for work as emergency department technicians. A minimum of 17 credits with a 2.0 grade or above in all classes is required to earn the certificate.
Professional/Technical Programs

PREREQUISITES
- Existing healthcare professional with certification equivalent to licensed practical nurse, certified medical assistant, certified nursing assistant, paramedic, emergency medical technician, or equivalent.
- 12 months (2,080 hours) experience working with patients in an acute care setting.
- Program advisor permission.
- Attend an orientation session.
- Meet the requirements of our current clinical sites—background check, immunizations, etc.)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 101</td>
<td>Emergency Department Technician Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EDT 102</td>
<td>Emergency Department Technician Procedures and Diagnostics Testing</td>
<td>5</td>
</tr>
<tr>
<td>EDT 103</td>
<td>Emergency Department Technician Lab Skills I</td>
<td>4</td>
</tr>
<tr>
<td>EDT 104</td>
<td>Emergency Department Technician Lab Skills II</td>
<td>5</td>
</tr>
<tr>
<td>EDT 105</td>
<td>Emergency Department Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 20

Emergency Medical Technician Short-Term Certificate

This certificate program provides the student with a general understanding of emergency department operations and prepares them for employment as an Emergency Department Technician (EDT) in an Emergency Department and Urgent Care setting. This program will cover several different courses focusing on administrative and clinical procedures.

PREREQUISITES
Be currently licensed by the Washington State Department of Health as a Nursing Assistant.

Additional requirements once accepted into the program:
- Show proof of being at least 18 years of age at the beginning of the course enrollment (proof required).
- Provide a copy of high school diploma or GED equivalency or college transcript showing high school completion.
- Provide a copy of a clear Washington State patrol background check.
- Provide copies of required immunizations: 1. Hepatitis B Series or positive titer, 2. A current Tuberculin skin test or alternative health documentation.

To gain employment in this field, you typically must have the physical strength to carry, lift, extricate, and perform similar maneuvers in a manner not detrimental to the patient, fellow emergency technicians, or self.

TECHNICAL SPECIALTY COURSES
Corequisite: Completion of AHE 192 taken concurrently with AHE 190

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 190</td>
<td>Emergency Medical Technician</td>
<td>12</td>
</tr>
<tr>
<td>AHE 192</td>
<td>Basic Life Support for Healthcare Providers</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 13

Healthcare Technology Management Associate of Applied Science Degree (A.A.S.)

North Seattle College offers a unique opportunity to enter the field of Healthcare Technology Management, part of Allied Health Sciences. Healthcare Technology Management is appropriate for students interested in the operation, maintenance and repair of medical equipment (a program formerly titled Biomedical Equipment Technology). It increases the marketable skills and areas of knowledge for students who are studying Electronics and thus offers more employment possibilities in the health and medical repair fields.

PREREQUISITES
For placement testing, contact Testing Center 934-3674

To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:
- equivalent computer experience

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 097</td>
<td>English 097: Integrated Reading and Writing I</td>
<td>10</td>
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</tbody>
</table>

Following can be substituted:
- ENGL 098 College Prep Writing IV | 5
- higher ENGL course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted: higher MATH course
- OR-
- have taken equivalent or higher MATH course

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHI 100</td>
<td>Introduction to Medical Vocabulary</td>
<td>3</td>
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</tbody>
</table>

Following can be substituted:
- Online module AMA 170 or AMA 117 for AHI 100 | 1.4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 128</td>
<td>Survey of Human Anatomy and Physiology</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:
- Online modules AMA 172, AMA 175, AMA 177, AMA 178, AMA 179, AMA 119 inclusive

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CHEM&amp; 121</td>
<td>Intro to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>EET 105</td>
<td>Introduction to Technology</td>
<td>2</td>
</tr>
<tr>
<td>EET 112</td>
<td>Fundamentals of Fluid Power &amp; Alternative Energy</td>
<td>5</td>
</tr>
<tr>
<td>EET 144</td>
<td>Applied Physics</td>
<td>5</td>
</tr>
<tr>
<td>EET 131</td>
<td>IT Essentials I - A+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>EET 132</td>
<td>IT Essentials A+ Certification Advanced</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 138</td>
<td>Robotic Applications</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
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<tr>
<td>EET 165</td>
<td>Analog Circuits and Devices</td>
<td>5</td>
</tr>
<tr>
<td>EET 170</td>
<td>Digital Electronics &amp; Pics I</td>
<td>5</td>
</tr>
<tr>
<td>EET 286</td>
<td>Biomedical Equipment I</td>
<td>5</td>
</tr>
<tr>
<td>EET 287</td>
<td>Biomedical Equipment II</td>
<td>5</td>
</tr>
</tbody>
</table>
| EET 297 | Biomedical Technician Externship | 4

CWE 101 Portfolio Job Search Int is a prerequisite for EET 297.

TOTAL PROGRAM CREDITS 83-86
## Related Instruction

**BUS 112** Multi-Cultural Issues in the American Workplace ................. 5  
*Following can be substituted:*  
Global Studies or U.S. Cultures designated course ....... 5  
See Advising Center for approved list.

**BUS 236** Interpersonal Communications for the Workplace ................. 5  
This course has acceptable substitutes.  
See Advising Center for approved list.

**EET 109** Mathematical Applications for Circuit Analysis ........... 5  
*Following can be substituted:*  
MATH& 141 - Pre-Calculus ....................... 5  
-OR-  
higher MATH course

**ENGL 101** English Composition I .................... 5  
While students must test into ENGL 097 to start the degree, they must complete ENGL 101 to finish.

**IT 122** Network OS 1 - Windows Client OS .............. 5  
*Following can be substituted:*  
any combination of higher IT courses totaling 10 credits  
Total of 10 credits in IT courses required

### Related Instruction Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
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</tbody>
</table>

### Total Program Credits

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-116</td>
</tr>
</tbody>
</table>

Any student wishing to transfer to the BSBMET program at DeVry University should take the following math and physics courses in place of courses listed above:

- **MATH& 142** - Precalculus I
- **MATH& 151** - Calculus I
- **MATH& 152** - Calculus II
- **PHYS& 221** - Engineering Physics I
- **PHYS& 222** - Engineering Physics II
- **PHYS& 223** - Engineering Physics III

### Sustainability in Healthcare Short-Term Certificate

For hospital employees, in particular Environmental Services Workers, Waste Management, Hospital Facilities and/or Dietary Services, to achieve a deeper understanding of the importance of sustainable hospitals, develop competency in “best practices in sustainability”, and obtain the knowledge and skills in order to assist the hospital in becoming more sustainable. (Sustainability and/or “green” are defined in the context of this program as the use of products and processes that do not harm the environment or adversely affect the health and safety of patients and workers in the hospital.)

### Technical Specialty Courses

**SUST 111** Sustainability in Healthcare .................... 5

### Total Program Credits

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

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**Business**

### Workforce Instruction Division

(206) 934-3730

The Business programs prepare students for the workplace demands of the local community and the economic challenges of the global marketplace. Day and evening programs offer a number of college transfer business courses, information technology and highly technical courses. Areas of specialization include management, professional office support, customer service, information technology support, project management and entrepreneurship. All programs strongly support the development of interpersonal skills.

### Administrative Assistant Associate of Applied Science Degree (A.A.S.)

This program prepares students for employment as office support professionals, secretaries and administrative assistants with computer literacy in information processing, spreadsheets, databases, presentation graphics and word processing. Advanced placement testing, work experience, and transfer of credits MAY result in course waivers, credit transfer, and advanced program standing.

### Technical Specialty Courses

**BUS& 101** Introduction to Business .................... 5
**BUS 106** Keyboarding/Skillbuilding .................... 3  
Course may be taken up to three times to assist students in achieving typing skills required by industry.

**BUS 112** Multi-Cultural Issues in the American Workplace ................. 5

**BUS 115** Computational Skillbuilding .................... 2
**BUS 124** Excel for Business ......................... 5
**BUS 140** Customer Relations ......................... 5
**BUS 169** Using Computers in Business ................. 5
**BUS 170** Information Technology I .................... 5
**BUS 182** Information and Database Management ........ 5
**BUS 205** Human Resource Management ................... 5  
Eligible for ENGL 101 through English Placement Exam or completion of ENGL 097/098

**BUS 230** Business Communications .................... 5  
Prerequisite: BUS 131 Integrated Communications I

**CWE 101** Portfolio, Job Search and Interviewing ........ ... 2

### Technical Specialty Credits

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>57</td>
</tr>
</tbody>
</table>
### Administrative Assistant Certificate

This certificate prepares students for jobs as administrative assistants and office support professionals. It is geared for students who are currently working in a related field or who already have a college degree (or certificate), or have taken a substantial number of college level courses.

**PREREQUISITES**
- Type 25 correct words a minute, placement into ENGL 097 or higher, MATH 081.
- Note: Advanced placement testing, work experience and transfer of credits may result in some course waivers, credit transfer and advanced placement.

**TECHNICAL SPECIALTY COURSES**
- BUS 182 Information and Database Management ........... 5
- BUS 106 Keyboarding/Skillbuilding ......................... 3
- BUS 112 Multi-Cultural Issues in the American Workplace ........................................... 5
- BUS 124 Excel for Business ................................. 5
- BUS 169 Using Computers in Business ....................... 5
- BUS 170 Information Technology I ......................... 5
- BUS 230 Business Communications ....................... 5
- CWE 101 Portfolio, Job Search and Interviewing, ........ 2

**TOTAL PROGRAM CREDITS** 15

### Administrative Specialist Short-Term Certificate

The students will learn valuable skills and tools to enhance their employment opportunities by being able to demonstrate competencies in math skill, written communication, interpersonal communication and customer service interactions. This is a three quarter program but students can complete this program in less time if desired. The target audience are administrative employees who wish to build new skills and enhance current skills in order to become proficient and demonstrate on-the-job competencies.

**TECHNICAL SPECIALTY COURSES**
- BUS 116 Business Math/Spreadsheets .................... 5
- BUS 131 Integrated Communications I ................... 5
- BUS 236 Interpersonal Communications for the Workplace ........................................... 5
- CWE 110, BUS 114, BUS & 201, BUS 210, ACCT 131, IT 111 or any BUS course numbered 110 or above.
- Total Required credits: 3-5

**TOTAL PROGRAM CREDITS** 15

### Certificate of Entrepreneurship

This program explores the challenges of starting a new business. It includes solid business planning, feasibility studies, financial structuring, market research, and other areas of knowledge for creating a successful venture. It emphasizes the importance of a responsible and professional work ethic and leadership qualities.

**REQUIRED COURSES**
- ACCT & 201 Principles of Accounting I .................. 5
- BUS 118 Project Management Introduction and Overview ................................. 5
- BUS 151 Introduction to Entrepreneurship ................... 3
- BUS 154 Exploring Entrepreneurship ...................... 5
- BUS 152 Entrepreneurship Product/Service/ Pricing/Mktng ........................................... 5
- BUS 153 Entrepreneurship Planning Business Financials ........................................... 5
- BUS 156 Introduction to E-Business/Commerce ........... 5
- BUS 169 Using Computers in Business ....................... 5
- BUS 186 Sustainable Business .............................. 5
- BUS 236 Interpersonal Communications for the Workplace ........................................... 5

**TOTAL PROGRAM CREDITS** 38-40
Customer Service Certificate

Customer Service certificates combine office support training in communications, customer relations, information technology, and on-the-job work experience to prepare students for entry-level positions as customer service representatives.

TECHNICAL SPECIALTY COURSES

BUS 106  Keyboarding/Skillbuilding  .......... 3
  Prerequisite: BUS 105 - Keyboarding (4 credits) or concurrent enrollment in BUS 105, or 25 wpm accurate keyboarding. May be repeated twice to build speed.

BUS 131  Integrated Communications I ........ 5
  Eligible for ENGL 101 through English Placement Exam or completion of ENGL 097/098.

BUS 140  Customer Relations ................. 5

BUS 169  Using Computers in Business ....... 5

CWE 110  Internship .......................... 3

TOTAL PROGRAM CREDITS 21

Customer Service Certificate – Advanced

The Business programs prepare students for workplace demands of the local community and the economic challenges of the global marketplace. Day and evening programs offer a number of college transfer business courses, information technology, and highly technical courses. Areas of specialization include management, professional office support, customer service, e-business, information technology support, international business and trade, along with development of interpersonal skills.

Customer Service certificates combine office support training in communications, customer relations, information technology, skill-building, and on-the-job work experience to prepare students for entry-level positions as customer service representatives.

TECHNICAL SPECIALTY COURSES

BUS 106  Keyboarding/Skillbuilding ........... 3
  Following can be substituted:
  BUS 105 Keyboarding, or concurrent enrollment in BUS 105, or 25 wpm accurate keyboarding. May be repeated twice to build speed.

BUS 112  Multi-Cultural Issues in the American Workplace ......................... 5

BUS 123  Word for Business .................... 5

BUS 124  Excel for Business ..................... 5
  Following can be substituted:
  BUS 125 Access for Business .................. 5

BUS 131  Integrated Communications I ........ 5
  Eligible for ENGL 101 through English Placement Test or satisfactory completion of ENGL 097/098.

BUS 140  Customer Relations ................... 5

BUS 169  Using Computers in Business ........ 5

BUS 230  Business Communications .......... 5

CWE 110  Internship .......................... 3

TOTAL PROGRAM CREDITS 41

Entrepreneur Foundation Short-Term Certificate

If you have a passion for a business venture but aren’t sure how to go about implementing it, this certificate program will get you started with business planning. By the time you complete the program, you’ll have the beginning of a business plan including information you’ll need to seek financing to start your business.

PREREQUISITES:

Many classes have prerequisites. Prerequisites are those classes that prove eligibility for entry-level classes by testing or by having satisfied prior course work.

Course work earned at other institutions must be unofficially evaluated or approved by a program advisor before registering. See catalog for more information.

REQUIRED COURSES

BUS 151  Introduction to Entrepreneurship .... 3

BUS 152  Entrepreneurship Product/Service/ Pricing/Mktng ........................ 5

BUS 153  Entrepreneurship Planning Business Financials ......................... 5

TOTAL PROGRAM CREDITS 13

General Business Associate of Applied Science Degree (A.A.S.)

This degree program enables students to acquire a foundation in the basics of accounting, management, marketing, business communication, business law, and finance. Students learn to apply diverse skills such as critical thinking, organization, problem-solving, and professionalism to the business world.

TECHNICAL SPECIALTY COURSES

ACCT& 201  Principles of Accounting I .......... 5

ACCT& 202  Principles of Accounting II .......... 5

BUS& 101  Introduction to Business ............... 5

BUS 112  Multi-Cultural Issues in the American Workplace .......................... 5

Students completing the Communications, Business & Media certificate may substitute CMST 205 Multi-cultural Communication............................... 5

BUS 114  Introduction to Marketing ................ 5
  Must complete BUS 131 Integrated Communications or be eligible for ENGL 101 through English Placement Exam or completion of ENGL 097/098.

BUS 169  Using Computers in Business .......... 5
  Following can be substituted:
  BUS 171 Information Technology II ............ 5

BUS& 201  Business Law .......................... 5

BUS 210  Business and Economic Statistics ...... 5

BUS 230  Business Communications ............. 5
  Must complete BUS 131 Integrated Communications or be eligible for ENGL 101 through English Placement Exam or completion of ENGL 097/098.

TOTAL PROGRAM CREDITS 41
BUS 236  Interpersonal Communications for the Workplace ........................................... 5

TECHNICAL SPECIALTY CREDITS 50

GENERAL EDUCATION COURSES
Contact the Advising Center for approved list of courses
U.S. Cultures ........................................ 5
General Education Elective .......................... 5
GENERAL EDUCATION CREDITS 10

ELECTIVES
Electives must include a minimum of 15 credits with BUS designation (except students with CB&M certificate)
BUS ........................................ 5
ELECTIVES CREDITS 10

ELECTIVES - PATHWAY
Total of 8-10 credits required
ACCT& 203  Principles of Accounting III .................................................. 5
BUS 118  Project Management Introduction and Overview .......................... 5
BUS 151  Introduction to Entrepreneurship ........................................... 3
  Following can be substituted:
  BUS 154  Exploring Entrepreneurship ........................................... 5
BUS 186  Sustainable Business ........................................ 5
BUS 205  Human Resource Management .......................................... 5
BUS 215  Introduction to International Trade Business ......................... 5
ECON& 201  Micro Economics .................................................. 5
RES 100  Real Estate Fundamentals .................................................. 5

ELECTIVES - PATHWAY CREDITS 38

ELECTIVES - GENERAL
Total of 20-22 credits required.
Elective BUS courses must be numbered 100 or above AND not listed under Technical Specialty Courses. May include BUS courses listed under Electives - Pathway.
Any CMST designated courses in the Communication, Business and Media (CB&M) certificate. Only students completing the CB&M certificate may apply CMST courses.

ACCT 131  QuickBooks .................................................. 5
ACCT& 203  Principles of Accounting III .................................................. 5
ACCT 261  Accounting Information Systems ............................................ 5
ECON& 201  Micro Economics .................................................. 5
ECON& 202  Macro Economics .................................................. 5
ENVS 160  Principles of Environmental Sustainability ............................ 5
RES 100  Real Estate Fundamentals .................................................. 5
RES 202  Multi-Family Property Management ........................................ 3
  Following can be substituted:
  RES 203  Property Management - Commercial .................................... 3

ELECTIVES - GENERAL CREDITS 38

TOTAL PROGRAM CREDITS 90

Note: Students wishing to transfer to an applied baccalaureate degree should consider the General Business A.A.S.-T program.

General Business
Associate of Applied Science - T Degree (A.A.S.-T)
The Associate in Applied Science - Transfer (A.A.S.-T) degree is built upon technical skills for job preparation but also includes college-level general education component common to all the A.A.S.-T degrees. The General Business A.A.S.-T degree is designed as a transfer program for those interested in an applied baccalaureate degree and, in particular, for students interested in the B.A.S. - International Business degree program here at North Seattle College.

TECHNICAL SPECIALTY COURSES
ACCT& 201  Principles of Accounting I .................................................. 5
ACCT& 202  Principles of Accounting II .................................................. 5
BUS& 101  Introduction to Business .................................................. 5
BUS 112  Multi-Cultural Issues in the American Workplace ......................... 5
  Following can be substituted:
  CMST 205  Multi-cultural Communications ............................................ 5
  WITH Academic Exception approval
BUS 114  Introduction to Marketing .................................................. 5
BUS& 201  Business Law .................................................. 5
BUS 210  Business and Economic Statistics ............................................ 5
BUS 215  Introduction to International Trade Business ........................... 5
  Following can be substituted:
  CMST 195  Media Management Operations ............................................ 5
  WITH Academic Exception approval
BUS 236  Interpersonal Communications for the Workplace ......................... 5
ECON& 201  Micro Economics .................................................. 5
ECON& 202  Macro Economics .................................................. 5

RELATED INSTRUCTION
ENGL& 101  English Composition I .................................................. 5
Must be eligible for English 101 through English Placement Exam or completion of English 097/098.
  -OR-
  ENGL&235  Technical Writing .................................................. 5
MATH 116  Applications of Math to Management, Life & SSCI ............................. 5
  Following can be substituted:
  MATH&141  Precalculus .................................................. 5
  -OR-
  Any math class with MATH&141 as a prerequisite
ELECTIVES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 203</td>
<td>Principles of Accounting III</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 255</td>
<td>Individual Income Tax</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 267</td>
<td>Financial Management</td>
<td>5</td>
</tr>
<tr>
<td>Elective BUS course numbered 100 or above and not listed under Technical Specialty Courses. See Advising Center</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

ELECTIVES CREDITS 15

TOTAL PROGRAM CREDITS 90

International Trade Certificate

The International Trade Certificate leads to entry-level positions requiring knowledge of international business, including logistics, supply chain management, freight forwarding, port and trade operations and distribution networks. Career professionals and those interested in moving into the international field from other industries focus on current real-world, real-time events and developments in international trade.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 215</td>
<td>Introduction to International Trade Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 245</td>
<td>Intro to International Trade Global Marketing</td>
<td>5</td>
</tr>
<tr>
<td>CWE 101</td>
<td>Portfolio, Job Search and Interviewing</td>
<td>2</td>
</tr>
<tr>
<td>CWE 110</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>IBN 203</td>
<td>International Trade: Export</td>
<td>3</td>
</tr>
<tr>
<td>IBN 205</td>
<td>International Trade: Import</td>
<td>3</td>
</tr>
<tr>
<td>IBN 225</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 24

Microsoft Office Professional Short-Term Certificate

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 123</td>
<td>Word for Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 124</td>
<td>Excel for Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 125</td>
<td>Access for Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 126</td>
<td>PowerPoint for Business</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 17

Project Management Short-Term Certificate

This certificate program focuses on both the development of knowledge and professional skills to become a project manager. Coursework includes topics such as leadership in the project process, planning and control, risk management, and utilization of MS project management software to develop a plan, schedule, budget, and produce deliverables for management reporting.

PREREQUISITES

Individual courses may have prerequisites.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 118</td>
<td>Project Management Introduction and Overview</td>
<td>5</td>
</tr>
<tr>
<td>Bus 119</td>
<td>Leadership and Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BUS 229</td>
<td>Project Management Tools Techniques and Control</td>
<td>5</td>
</tr>
<tr>
<td>CWE 110</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

-OR-

ENGL 235 Technical Writing | 5

TOTAL PROGRAM CREDITS 21

Retail Management Certificate

The Retail Management Certificate provides a solid foundation in basic business management skills and an added course in retail management. This certificate was developed in collaboration with other community colleges around the state and the Western Association of Food Chains (WAFC). Two classes are taken online through Skagit Valley College.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 114</td>
<td>Introduction to Marketing</td>
<td>5</td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
<tr>
<td>BUS 119</td>
<td>Leadership and Management Skills</td>
<td>3</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 205</td>
<td>Human Resource Management</td>
<td>5</td>
</tr>
<tr>
<td>BUS 214</td>
<td>Retail Management</td>
<td>5</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Business Communications</td>
<td>5</td>
</tr>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 43

Early Childhood Education

Workforce Instruction Division
(206) 934-3783

North offers certificates and an Associate of Applied Science degree in early childhood education. The A.A.S. degree is a two-year teacher preparation program focusing on the educational and developmental needs of children from birth to 8 years old. Career opportunities include positions as a childcare teacher, preschool teacher or nanny.
**Early Childhood Education**  
Associate of Applied Science Degree (A.A.S.)

### GENERAL EDUCATION

Contact the Advising Office for approved courses.

- **ENGL 101** English Composition I .......................... 5
- **U.S. Cultures** .................................. 5

*Following can be substituted:* Global Studies courses

**REQUIRED GENERAL EDUCATION CREDITS** 10

### GENERAL EDUCATION - COMPUTATION/QUANTITATIVE ELECTIVE

MATH at 100 level or choose from course(s) listed below:

- **ACCT 110** Introduction to Accounting/Bookkeeping .... 5

**REQUIRED C/Q ELECTIVE CREDITS** 5

### GENERAL EDUCATION - HUMAN RELATIONS ELECTIVE

Choose from one of the following courses:

- **BUS 236** Interpersonal Communications for the Workplace ............. 5
- **HUM 105** Intercultural Communication ...................... 5
- **ISP 101** the Global Society, .................................. 5
- **ISP 110** Introduction to Global Studies ......................... 5
- **POLS 112** Contemporary World .................................. 5
- **SOC& 101** Introduction to Sociology ............................ 5

**REQUIRED HR ELECTIVE CREDITS** 5

### REQUIRED COURSES

- Practicum - Instructional Interactions .......................... 5
- Math and Science Methods ........................................ 5
- **ECED& 105** Introduction to Early Childhood Education .... 5
- **ECED& 107** Health, Safety, and Nutrition .................... 5
- **ECED& 120** Practicum: Nurturing Relationships ............. 2
- **ECED& 132** Infants and Toddlers ............................... 3
- **ECED& 139** Administration ..................................... 3
- **ECED& 160** Curriculum Development .......................... 5
- **ECED& 170** Environments-Young Child ........................ 3
- **ECED& 180** Language and Literacy Development ............. 3
- **ECED& 190** Observing and Assessment ........................ 3
- **EDUC& 115** Child Development ................................. 5
- **EDUC& 130** Guiding Behavior .................................. 3
- **EDUC& 150** Child Family and Community ..................... 3
- **EDUC& 203** Exceptional Child ................................. 3

**REQUIRED COURSES CREDITS** 46

### ELECTIVE COURSES

Select from the following courses:

- **EDUC& 205** Introduction to Education with Field Experience .......................... 5
- **CCE 145** Music and Creative Expression .................... 4
- **CCE 195** Art for Young Children .............................. 3
- **CCE 200** Children and Nature ................................. 3
- **CCE 261** Readings in Early Childhood Education ........... 6

*Credit range: 1-6; Total required credits: 1-6*

- **ECED& 134** Family Child Care ............................. 3
- **EDUC& 136** School-Age Care ................................. 3

**REQUIRED ELECTIVE CREDITS** 14

**TOTAL PROGRAM CREDITS** 90

### State Early Childhood Education Certificate

This program is part of the Washington State Career State Career Lattice for Early Childhood Education (meets minimum child care licensing standards or registered apprentice in high school, high School or equivalent and 20 hours basic STARS/MERIT training or 2 college credits in basics of child care course, at least 2 hours of training in each of the ECE Core Competency areas.) for early care and education professionals.

The State Early Childhood Education certificate is awarded following completion of the one of the specialized Early Childhood Short Certificates (total of 20 credits, which includes completion of the State Initial Early Childhood Education Certificate [12 credits] ) plus 27 credits in additional required coursework as noted.

#### TECHNICAL SPECIALTY COURSES

- **ECED& 160** Curriculum Development .......................... 5
- **ECED& 170** Environments-Young Child ........................ 3

*Following can be substituted:*

- **ECED& 130** Guiding Behavior .................................. 3

- **ECED& 180** Language and Literacy Development ............. 3
- **ECED& 190** Observing and Assessment ........................ 3
- **EDUC& 150** Child Family and Community ..................... 3

**TECHNICAL SPECIALTY CREDITS** 17

#### TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

- **ECED& 105** Introduction to Early Childhood Education .... 5
- **ECED& 107** Health, Safety, and Nutrition .................... 5
- **ECED& 120** Practicum: Nurturing Relationships ............. 2

**TECHNICAL SPECIALTY INITIAL CERTIFICATE CREDITS** 12

#### TECHNICAL SPECIALTY COURSES - SPECIALIZATION

Completion of EDUC& 115 - Child Development and one of the other courses listed below:

- **ECED& 132** Infants and Toddlers ............................... 3

Completion this course, EDUC& 115 - Child Development (5 credits) , and the State Initial ECE Certificate courses (12 credits) equals the State Short ECE Certificate - Infant/Toddler Care

**EDUCATIONAL PROGRAM TO CREDITS** 46
ECED& 134 Family Child Care ........................................ 3
Completion this course, EDUC& 115 - Child Development (5 credits), and the State Initial ECE Certificate courses (12 credits) equals the State Short ECE Certificate - Family Child Care

ECED& 139 Administration ............................................ 3
Completion this course, EDUC& 115 - Child Development (5 credits), and the State Initial ECE Certificate courses (12 credits) equals the State Short ECE Certificate - Administration

EDUC& 115 Child Development ................................. 5

EDUC& 130 Guiding Behavior ................................. 3
Completion this course, EDUC& 115 - Child Development (5 credits), and the State Initial ECE Certificate courses (12 credits) equals the State Short ECE Certificate - General

EDUC& 136 School-Age Care ........................................ 3
Completion this course, EDUC& 115 - Child Development (5 credits), and the State Initial ECE Certificate courses (12 credits) equals the State Short ECE Certificate - School-Age Care

TECHNICAL SPECIALTY SPECIALIZATION CREDITS 8

RELATED INSTRUCTION

ENGL 101 English Composition I ............................... 5
Following can be substituted:
  English course higher than ENGL 101
  College Level MATH course ................................... 5
  Quantitative or Computational Math above 100 or designated Q/SR

RELATED INSTRUCTION CREDITS 10

TOTAL PROGRAM CREDITS 47

State Initial Early Childhood Education Certificate

The initial Certificate is a point of entry or a continuation of professional development based on Level 1 on the Washington State Career State Career Lattice for Early Childhood Education (meets minimum child care licensing standards or registered apprentice in high school, high School or equivalent and 20 hours basic STARS/MERIT training OR 2 college credits in basics of child care course, at least 2 hours of training in each of the ECE Core Competency areas.) for early care and education professionals. The State Short Early Childhood Education Certificate Administration is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

ECED& 105 Introduction to Early Childhood Education ....... 5
ECED& 107 Health, Safety, and Nutrition ........................ 5
ECED& 120 Practicum: Nurturing Relationships .............. 2

TECHNICAL SPECIALTY COURSES - SPECIALIZATION

ECED& 139 Administration ............................................ 3
EDUC& 115 Child Development ................................. 5

TOTAL PROGRAM CREDITS 20

State Short Early Childhood Education Certificate - Family Child Care

This program is part of the Washington State Career State Career Lattice for Early Childhood Education (meets minimum child care licensing standards or registered apprentice in high school, high School or equivalent and 20 hours basic STARS/MERIT training OR 2 college credits in basics of child care course, at least 2 hours of training in each of the ECE Core Competency areas.) for early care and education professionals.

The State Short Early Childhood Education Certificate - Family Child Care is awarded following completion of completion of the State Initial Early Childhood Education Certificate (12 credits) plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE

Completion of the courses listed below equals the State Initial ECE Certificate.

ECED& 105 Introduction to Early Childhood Education ....... 5
ECED& 107 Health, Safety, and Nutrition ........................ 5
ECED& 120 Practicum: Nurturing Relationships .............. 2

TECHNICAL SPECIALTY COURSES - SPECIALIZATION

ECED& 134 Family Child Care ........................................ 3
EDUC& 115 Child Development ................................. 5

TOTAL PROGRAM CREDITS 20
State Short Early Childhood Education Certificate -
General
This program is part of the Washington State Career State
Career Lattice for Early Childhood Education (meets minimum
child care licensing standards or registered apprentice in high
school, high School or equivalent and 20 hours basic STARS/
MERIT training OR 2 college credits in basics of child care
course, at least 2 hours of training in each of the ECE Core
Competency areas.) for early care and education professionals.
The State Short Early Childhood Education Certificate - General
is awarded following completion of completion of the State
Initial Early Childhood Education Certificate (12 credits) plus
8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE
Completion of the courses listed below equals the State Initial
ECE Certificate.
ECED& 105  Introduction to Early Childhood Education . . . . 5
ECED& 107  Health, Safety, and Nutrition ...................... 5
ECED& 120  Practicum: Nurturing Relationships ............ 2

TECHNICAL SPECIALTY COURSES - SPECIALIZATION
EDUC& 115  Child Development ............................... 5
EDUC& 130  Guiding Behavior ................................. 3
TOTAL PROGRAM CREDITS  20

State Short Early Childhood Education Certificate -
Infant Toddler Care
This program is part of the Washington State Career State
Career Lattice for Early Childhood Education (meets minimum
child care licensing standards or registered apprentice in high
school, high School or equivalent and 20 hours basic STARS/
MERIT training OR 2 college credits in basics of child care
course, at least 2 hours of training in each of the ECE Core
Competency areas.) for early care and education professionals.
The State Short Early Childhood Education Certificate - Infant
Toddler Care is awarded following completion of completion of
the State Initial Early Childhood Education Certificate (12 credits) plus
8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE
Completion of the courses listed below equals the State Initial
ECE Certificate.
ECED& 105  Introduction to Early Childhood Education . . . . 5
ECED& 107  Health, Safety, and Nutrition ...................... 5
ECED& 120  Practicum: Nurturing Relationships ............ 2

TECHNICAL SPECIALTY COURSES - SPECIALIZATION
ECED& 132  Infants and Toddlers .............................. 3
EDUC& 115  Child Development ............................... 5
TOTAL PROGRAM CREDITS  20

State Short Early Childhood Education Certificate -
School-Age Care
This program is part of the Washington State Career State
Career Lattice for Early Childhood Education (meets minimum
child care licensing standards or registered apprentice in high
school, high School or equivalent and 20 hours basic STARS/
MERIT training OR 2 college credits in basics of child care
course, at least 2 hours of training in each of the ECE Core
Competency areas.) for early care and education professionals.
The State Short Early Childhood Education Certificate - School-
Age Care is awarded following completion of completion of the
State Initial Early Childhood Education Certificate (12 credits)
plus 8 credits in additional required coursework as noted.

TECHNICAL SPECIALTY COURSES - INITIAL CERTIFICATE
Completion of the courses listed below equals the State Initial
ECE Certificate.
ECED& 105  Introduction to Early Childhood Education . . . . 5
ECED& 107  Health, Safety, and Nutrition ...................... 5
ECED& 120  Practicum: Nurturing Relationships ............ 2

TECHNICAL SPECIALTY COURSES - SPECIALIZATION
EDUC& 115  Child Development ............................... 5
EDUC& 136  School-Age Care .................................. 3
TOTAL PROGRAM CREDITS  20

Electronics
Workforce Instruction Division
(206) 934-3730
Electronics and associated technologies at North prepare
students for careers in this diverse and expanding field.
Ongoing changes in the electronics technology programs
reflect changing community and industry needs. Instruction
emphasizes a hands-on approach, the use of sophisticated
test equipment unique to each discipline and a solid base
of pertinent information. These programs provide high-skill
learning opportunities, including professional certification
and Associate of Applied Science degree options.
To accommodate students in as many segments of the
industry as possible, day (D) and evening (E) programs
are offered in the following areas:
Electronics Certificate and A.A.S Programs
Programs: Day (D) - Evening (E)
Biomedical Equipment Technology
Electronics Engineering Technology
Electronics Technology*
Electronics Technology*, Certificate
Industrial Power & Control Technology
Industrial Power & Control Technology, Certificate
*Students interested in Electronics Technology should contact the program advisor at (206) 528-4588, or the Advising Center at (206) 934-3658 before enrolling. Courses and programs are transferable to certain four-year institutions.

TOTAL CREDITS: (SEE INDIVIDUAL PROGRAMS)

Aviation Electronics I: Wire Assembly Certificate
This certificate is designed to provide students with the basic knowledge, skills and abilities to meet minimum requirements for employment as an entry level wire assembly technician in aerospace-related technologies.

PREREQUISITES
For placement testing: contact Testing Center, 934-3674.
To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 097</td>
<td>English 097: Integrated Reading and Writing I</td>
<td>10</td>
</tr>
<tr>
<td>ENGL 098</td>
<td>College Prep Writing IV</td>
<td>5</td>
</tr>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:

- equivalent computer experience
- higher ENGL course
- higher MATH course
- have taken equivalent or higher MATH course

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 105</td>
<td>Introduction to Technology</td>
<td>2</td>
</tr>
<tr>
<td>EET 107</td>
<td>Introduction to Aviation Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 108</td>
<td>Introduction to Fiber Optics</td>
<td>5</td>
</tr>
<tr>
<td>EET 109</td>
<td>Mathematical Applications for Circuit Analysis</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 29-30

Aviation Electronics II: Electronics Technician Certificate
Electronics and associated technologies at North prepare students for careers in this diverse and expanding field. Ongoing changes in the electronics technology programs reflect changing community and industry needs. Instruction emphasizes a hands-on learning, the use of sophisticated test equipment unique to each discipline, and a solid base of electronics/electrical theory. These programs provide high-skill learning opportunities, including professional certification and Associate of Applied Science degree options. Also see the Sustainable & Conventional Energy & Control Technology program.

This certificate program prepares students for entry-level positions in aerospace-related technologies.

PREREQUISITES
For placement testing: contact Testing Center, 934-3674.
To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 097</td>
<td>English 097: Integrated Reading and Writing I</td>
<td>10</td>
</tr>
<tr>
<td>ENGL 098</td>
<td>College Prep Writing IV</td>
<td>5</td>
</tr>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:

- equivalent computer experience
- higher ENGL course
- higher MATH course
- have taken equivalent or higher MATH course

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 105</td>
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<td>EET 108</td>
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<td>5</td>
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<tr>
<td>EET 109</td>
<td>Mathematical Applications for Circuit Analysis</td>
<td>5</td>
</tr>
<tr>
<td>EET 112</td>
<td>Fundamentals of Fluid Power &amp; Alternative Energy</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
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<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 170</td>
<td>Digital Electronics &amp; Plcs I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
</tbody>
</table>

ENGL 101    | English Composition I | 5 |

Following can be substituted:

- ENGL 230 Technical Writing | 3 |

TOTAL PROGRAM CREDITS 60-63
GENERAL EDUCATION COURSES
Air Washington is an equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities. This workforce solution was funded $20M (100%) by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use, by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

Avionics Technician Short-Term Certificate
This certificate is designed to provide students with the basic knowledge, skills and abilities to meet minimum requirements for employment as an entry level avionics technician in aerospace-related technologies. This program is intended as a supplement for Aviation Maintenance Technicians. Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

Many classes have prerequisites. Prerequisites are those classes that prove eligibility for entry-level classes by testing or by having satisfied prior course work. Course work earned at other institutions must be unofficially evaluated or approved by a program advisor before registering.

PREREQUISITES
Successful completion of South Seattle College’s AMT 112 - Basic Electricity for Aviation
-OR-
Approved equivalent
-OR-
FAA Airframe license

TECHNICAL SPECIALTY COURSES
EET 107 Introduction to Aviation Electronics ........ 5
EET 108 Introduction to Fiber Optics ............... 5
EET 137 Introduction to Robotics .................. 5

Following can be substituted:
EET 170 Digital Electronics & PLCs I ............ 5

TOTAL PROGRAM CREDITS 15

Broadband Cable Certificate
Electronics and associated technologies at North prepare students for careers in this diverse and expanding field. Ongoing changes in the electronics technology programs reflect changing community and industry needs. Instruction emphasizes a hands-on learning, the use of sophisticated test equipment unique to each discipline, and a solid base of electronics/electrical theory. These programs provide high-skill learning opportunities, including professional certification and Associate of Applied Science degree options. Also see the Sustainable & Conventional Energy & Control Technology program. Students can take a short-term certificate in Green Energy. This certificate program prepares students for entry-level positions in the broadband cable TV industry.

PREREQUISITES
For placement testing: contact Testing Center, 934-3674.
To begin program, students must test into the English and Math courses listed below:

BUS 169 Using Computers in Business ............ 5
Following can be substituted:
equivalent computer experience

ENGL 097 English 097: Integrated Reading and Writing I .......... 10
Following can be substituted: higher ENGL course
-OR-
ENGL 098 College Prep Writing IV ............... 5
MATH 084 Algebra I ......................... 5
Following can be substituted: higher MATH course
-OR-
have taken an equivalent or higher course

TECHNICAL SPECIALTY COURSES
EET 108 Introduction to Fiber Optics ............... 5
EET 131 IT Essentials I - A+ Certification ........ 5
EET 132 IT Essentials A+ Certification Advanced 5
EET 135 Introduction to Broadband ............... 5
EET 160 Introduction to Electricity and Electronics 5

Following can be substituted:
EET 161 D.C. Principles Of Electronics ........... 5

RELATED INSTRUCTION
BUS 236 Interpersonal Communications for the Workplace ........... 5

Following can be substituted:
HUM 105 Intercultural Communication ........... 5
-OR-
ISP 101 The Global Society .................... 5
-OR-
ISP 110 Intro to Global Studies ................ 5
-OR-
POLS 112 Contemporary World ................... 5
-OR-
SOC& 101 Introduction to Sociology ............ 5

TOTAL PROGRAM CREDITS 30
**Electronics Engineering Technology**  
Associate of Applied Science - T Degree (A.A.S.-T)

This two-year program prepares students for advanced technical training and transfer into B.S. degree programs in electronics engineering technology at selected institutions such as Western Washington University or Central Washington University.

The program focuses on teaching practical engineering applications and skills, and provides a good foundation for those who wish to seek employment after the two-year program. Because of the complexity of course prerequisites and course sequences, students need advanced planning assistance with an advisor. Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

**PREREQUISITES**
For placement testing, contact Testing Center, 934-3674.

To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted:*
- equivalent computer experience

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 097</td>
<td>English 097: Integrated Reading and Writing I</td>
<td>10</td>
</tr>
</tbody>
</table>

*OR:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 098</td>
<td>College Prep Writing IV</td>
<td>5</td>
</tr>
</tbody>
</table>

**Higher ENGL course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
</tr>
</tbody>
</table>

*OR:

- have taken equivalent or higher MATH course

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 142</td>
<td>Computer Programming I</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted: any higher CSC course*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 105</td>
<td>Introduction to Technology</td>
<td>2</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 165</td>
<td>Analog Circuits and Devices</td>
<td>5</td>
</tr>
<tr>
<td>EET 166</td>
<td>Analog Circuits and Devices II</td>
<td>5</td>
</tr>
<tr>
<td>EET 170</td>
<td>Digital Electronics &amp; Plcs I</td>
<td>5</td>
</tr>
<tr>
<td>EET 171</td>
<td>Digital Electronics &amp; Plcs II</td>
<td>5</td>
</tr>
<tr>
<td>EET 251</td>
<td>Microprocessor Fundamentals I</td>
<td>5</td>
</tr>
<tr>
<td>EET 252</td>
<td>Microprocessor Fundamentals II</td>
<td>5</td>
</tr>
<tr>
<td>EET 285</td>
<td>Electronics Tech Project</td>
<td>3</td>
</tr>
<tr>
<td>PHYS&amp; 221</td>
<td>Engineering Physics I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 222</td>
<td>Engineering Physics II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 223</td>
<td>Engineering Physics III</td>
<td>5</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS** 70

**RELATED INSTRUCTION**

See Advising Center for list of designated courses for above requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST&amp; 210</td>
<td>Interpersonal Communication</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
</tbody>
</table>

While students must test into ENGL 097 to start the degree, they must complete ENGL 101 to finish.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 230</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH&amp; 142</td>
<td>Precalculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 151</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 152</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Global Studies</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted: U.S. Cultures credits*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 230</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH&amp; 142</td>
<td>Precalculus II</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 151</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 152</td>
<td>Calculus II</td>
<td>5</td>
</tr>
<tr>
<td>Global Studies</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

**TECHNICAL ELECTIVES**

Select five credits from approved list. See Advising Center.

**REQUIRED TECHNICAL ELECTIVES** 5

**RELATED INSTRUCTION CREDITS** 10

**TOTAL PROGRAM CREDITS** 110-112

**Electronics Technology Certificate**

This program provides opportunities for students interested in the operation, maintenance and repair of a wide array of electronics equipment, creating a broad foundation in electronics training. Instruction emphasizes a hands-on approach, use of sophisticated test equipment, and a solid base of information concerning computer hardware and software for technical applications. This program offers job training directed toward immediate employment and future advancement with companies specializing in manufacturing or servicing all types of electronic equipment.

**PREREQUISITES**
For placement testing: contact Testing Center, 934-3674

A minimum of 15 credits of this certificate must be taken in residence at North Seattle College

To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
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</table>

*OR:

- equivalent computer experience

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<tbody>
<tr>
<td>ENGL 097</td>
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<table>
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<tbody>
<tr>
<td>ENGL 098</td>
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**Higher ENGL course**

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<tbody>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
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</table>

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**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
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</thead>
<tbody>
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<td>EET 105</td>
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<td>EET 163</td>
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</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted: higher ENGL course*

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<td>ENGL 097</td>
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<tbody>
<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted: higher MATH course*
TECHNICAL SPECIALTY COURSES

EET 105 Introduction to Technology .......................... 2
EET 107 Introduction to Aviation Electronics ............... 5
EET 108 Introduction to Fiber Optics ....................... 5
EET 131 IT Essentials I - A+ Certification .................. 5
EET 132 IT Essentials A+ Certification Advanced ........... 5

Following can be substituted:
EET 135 Intro to Broadband .................................. 5
EET 137 Introduction to Robotics ............................ 5
EET 161 D.C. Principles of Electronics .................... 5
EET 162 A.C. Principles of Electronics .................... 5
EET 163 Solid State Electronics ............................. 5
EET 165 Analog Circuits and Devices ....................... 5
EET 170 Digital Electronics & Plcs I ....................... 5

GENERAL EDUCATION COURSES

EET 109 Mathematical Applications for Circuit Analysis ... 5

Following can be substituted:
MATH 141 Pre-Calculus I .................................. 5
-OR-
higher MATH course
ENGL 101 English Composition I .......................... 5

Following can be substituted:
ENGL &230 Technical Writing .............................. 3
-OR-
ENGL &235 Technical Writing .............................. 5

GENERAL EDUCATION COURSES - HUMAN RELATIONS ELECTIVES

Choose from one of the following courses:
BUS 236 Interpersonal Communications for the Workplace (the preferred course) ........ 5
HUM 105 Intercultural Communication ........................ 5
ISP 101 the Global Society .................................. 5
ISP 110 Introduction to Global Studies ..................... 5
POLS 112 Contemporary World ............................. 5
SOC & 101 Introduction to Sociology ....................... 5

TOTAL PROGRAM CREDITS 65-68

Electronics Technology

Associate of Applied Science Degree (A.A.S.)
This program provides opportunities for students interested in the operation, maintenance and repair of a wide array of electronics equipment, creating a broad foundation in electronics training. Instruction emphasizes a hands-on approach, use of sophisticated test equipment, and a solid base of information concerning computer hardware and software for technical applications. This program offers job training directed toward immediate employment and future advancement with companies specializing in manufacturing or servicing all types of electronic equipment.

PREREQUISITES

For placement testing: contact Testing Center, 934-3674.
To begin program, students must test into the English and Math courses listed below:

BUS 169 Using Computers in Business .................... 5
-OR-
equivalent computer experience
ENGL 097 English 097: Integrated Reading and Writing I .................................................. 10

Following can be substituted:
ENGL 098 College Prep Writing IV ....................... 5
-OR-
higher ENGL course
MATH 084 Algebra I ........................................ 5

Following can be substituted: higher MATH course

TECHNICAL SPECIALTY COURSES

EET 105 Introduction to Technology .......................... 2
EET 106 Introduction to Soldering ........................... 1
EET 107 Introduction to Aviation Electronics ............... 5
EET 108 Introduction to Fiber Optics ....................... 5
EET 112 Fundamentals of Fluid power & Alternative energy ...................... 5
EET 131 IT Essentials I - A+ Certification .................. 5
EET 132 IT Essentials A+ Certification Advanced ........... 5
EET 135 Introduction to Broadband ......................... 5
EET 137 Introduction to Robotics ............................ 5
EET 138 Robotic Applications ............................... 5
EET 161 D.C. Principles of Electronics .................... 5
EET 162 A.C. Principles of Electronics .................... 5
EET 163 Solid State Electronics ............................. 5
EET 165 Analog Circuits and Devices ....................... 5
EET 170 Digital Electronics & Plcs I ....................... 5
EET 171 Digital Electronics & Plcs II ....................... 5
EET 219 Metrology and Measurement Science ............ 3

RELATED INSTRUCTION

EET 109 Mathematical Applications for Circuit Analysis 5

Following can be substituted: higher MATH course
-OR-
MATH &141 Pre-Calculus .................................. 5

ENGL 101 English Composition I .......................... 5

While students must test into ENGL 097 to start the degree, they must complete ENGL &101 to finish.
**SUSTAINABLE AND CONVENTIONAL ENERGY & CONTROL TECHNOLOGY CERTIFICATE**

The Industrial Power & Control Program offers a one-year certificate in Sustainable and Conventional Energy and Control Technology and a two-year Associate of Applied Science degree in Industrial Power & Control Technology. This program prepares students for entry level employment in companies or government organizations that manufacture, service, sell, design or support electrical and electronic systems that control machinery, automation, and/or processes. Emphasis is placed on the control of large electrical currents and large electromechanical systems through solid state, digital, and microprocessor devices. The program involves in-depth study of industrial controls, fluid power, AC and DC rotating equipment, instrumentation and measurement, and system control principles. Sustainable and Conventional Energy and Control differs from Electronics in the scale and application of electrical, electronic and mechanical systems, and may be considered “Industrial Electronics.”

**PREREQUISITES**

For placement testing contact Testing Center, 934-3674. A minimum of 15 credits of this certificate must be taken in residence at North Seattle College.

---

**BUSINESS AND MANAGEMENT**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
<tr>
<td>HUM 105</td>
<td>Intercultural Communication</td>
<td>5</td>
</tr>
<tr>
<td>ISP 101</td>
<td>The Global Society</td>
<td>5</td>
</tr>
<tr>
<td>ISP 110</td>
<td>Introduction to Global Studies</td>
<td>5</td>
</tr>
<tr>
<td>POLS 112</td>
<td>Contemporary World</td>
<td>5</td>
</tr>
<tr>
<td>SOC&amp; 101</td>
<td>Introduction to Sociology</td>
<td>5</td>
</tr>
</tbody>
</table>

**REQUIRED HUMAN RELATIONS ELECTIVES CREDITS**

5

**RELATED INSTRUCTION - HUMAN RELATIONS ELECTIVES**

Choose from one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace (the preferred course)</td>
<td>5</td>
</tr>
<tr>
<td>HUM 105</td>
<td>Intercultural Communication</td>
<td>5</td>
</tr>
<tr>
<td>ISP 101</td>
<td>The Global Society</td>
<td>5</td>
</tr>
<tr>
<td>ISP 110</td>
<td>Introduction to Global Studies</td>
<td>5</td>
</tr>
<tr>
<td>POLS 112</td>
<td>Contemporary World</td>
<td>5</td>
</tr>
<tr>
<td>SOC&amp; 101</td>
<td>Introduction to Sociology</td>
<td>5</td>
</tr>
</tbody>
</table>

**REQUERIRED HUMAN RELATIONS ELECTIVE CREDITS**

5

**RELATION INSTRUCTION - TECHNICAL ELECTIVES**

Any non-required course(s) from the following departments - EEL, EEI, HVC, TDR, CSC, CHEM, ENGR, NANO or course listed below:

- See Advising Center for assistance.
- BUS 210 Business and Economic Statistics | 5
- BUS 229 Project Management Tools Techniques and Control | 5
- IT 111 Internet and Web Authoring Using XHTML | 5

*Following can be substituted: higher IT course*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 116</td>
<td>Applications of Math to Management, Life &amp; SSCI</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted: higher MATH course*

**REQUIRED TECHNICAL ELECTIVES CREDITS**

8-10

**TOTAL PROGRAM CREDITS**

108-111

---

**SUSTAINABLE AND CONVENTIONAL ENERGY & CONTROL TECHNOLOGY CERTIFICATE**

The Industrial Power & Control Program offers a one-year certificate in Sustainable and Conventional Energy and Control Technology and a two-year Associate of Applied Science degree in Industrial Power & Control Technology. This program prepares students for entry level employment in companies or government organizations that manufacture, service, sell, design or support electrical and electronic systems that control machinery, automation, and/or processes. Emphasis is placed on the control of large electrical currents and large electromechanical systems through solid state, digital, and microprocessor devices. The program involves in-depth study of industrial controls, fluid power, AC and DC rotating equipment, instrumentation and measurement, and system control principles. Sustainable and Conventional Energy and Control differs from Electronics in the scale and application of electrical, electronic and mechanical systems, and may be considered “Industrial Electronics.”

**PREREQUISITES**

For placement testing contact Testing Center, 934-3674. A minimum of 15 credits of this certificate must be taken in residence at North Seattle College.

---

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL 201</td>
<td>Energy Generation Conversion and Sustainability</td>
<td>5</td>
</tr>
<tr>
<td>EEL 202</td>
<td>Industrial Motor Controls</td>
<td>5</td>
</tr>
<tr>
<td>EEL 203</td>
<td>Industrial Motor Drives</td>
<td>5</td>
</tr>
<tr>
<td>EET 105</td>
<td>Introduction to Technology</td>
<td>2</td>
</tr>
<tr>
<td>EET 112</td>
<td>Fundamentals of Fluid Power &amp; Alternative Energy</td>
<td>5</td>
</tr>
<tr>
<td>EET 114</td>
<td>Applied Physics</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 165</td>
<td>Analog Circuits and Devices</td>
<td>5</td>
</tr>
<tr>
<td>EET 170</td>
<td>Digital Electronics &amp; Plcs I</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

71-73
Engineering Graphics & Design Technology

Workforce Instruction Division
(206) 934-3730

Advanced Design for Manufacturing Short-Term Certificate

This program has been designed for the student that wants to pursue a career in Mechanical Engineering as a Mechanical Drafter or Commercial/Industrial Designer. The student will use computer programs that relate to CAD (Computer Aided Design) including SolidWorks and CATIA to construct rapid prototypes from basic 3D part creation to advanced surfacing models used in industries such as Aerospace.

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDR 170</td>
<td>Introduction to Design for 3D Printing</td>
<td>5</td>
</tr>
<tr>
<td>TDR 171</td>
<td>Introduction to SolidWorks</td>
<td>5</td>
</tr>
<tr>
<td>TDR 172</td>
<td>Intermediate SolidWorks</td>
<td>5</td>
</tr>
<tr>
<td>TDR 173</td>
<td>3D Printing</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDITS</td>
<td>20</td>
</tr>
</tbody>
</table>

Architecture Engineering Drafting Certificate

This certificate prepares students for the growing number of entry-level jobs in engineering, construction, and architectural firms. Our laboratory is equipped with industry standard computer-aided design (CAD) systems to provide state-of-the-art graphics training. Coursework includes instruction and hands on training in computer and conventional drafting, construction materials and processes, basic engineering mechanics, and architectural cost estimating.

PREREQUISITES

Placement into ENGL 97/ENGL 98 or higher, placement into MATH 084 or higher, and completion of BUS 169 or IT 101.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDR 100</td>
<td>Basic BIM for Design and Construction</td>
<td>5</td>
</tr>
<tr>
<td>TDR 101</td>
<td>Intermediate BIM for Design and Construction</td>
<td>5</td>
</tr>
<tr>
<td>TDR 102</td>
<td>Advanced BIM for Design &amp; Construction</td>
<td>5</td>
</tr>
<tr>
<td>TDR 109</td>
<td>Architectural Engineering Lab</td>
<td>5</td>
</tr>
<tr>
<td>TDR 111</td>
<td>Basic Drafting</td>
<td>5</td>
</tr>
<tr>
<td>TDR 124</td>
<td>Materials and Methods of Construction</td>
<td>5</td>
</tr>
<tr>
<td>TDR 134</td>
<td>Systems in Buildings</td>
<td>5</td>
</tr>
<tr>
<td>TDR 144</td>
<td>Design and Construction Environments</td>
<td>5</td>
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<tr>
<td>TDR 144</td>
<td>Design and Construction Environments</td>
<td>5</td>
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<tr>
<td>TDR 160</td>
<td>Applied Mechanics I</td>
<td>5</td>
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<tr>
<td>TDR 161</td>
<td>Applied Mechanics II</td>
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<tr>
<td>TDR 269</td>
<td>Construction Estimating</td>
<td>5</td>
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<tr>
<td></td>
<td>TOTAL SPECIALTY CREDITS</td>
<td>65</td>
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</table>

GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
<tr>
<td>EET 109</td>
<td>Mathematical Applications for Circuit Analysis</td>
<td>5</td>
</tr>
<tr>
<td>MATH 102</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>Composition</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>TOTAL EDUCATION CREDITS</td>
<td>15</td>
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</table>

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDR 111</td>
<td>Basic CAD Drafting for Construction and Design</td>
<td>5</td>
</tr>
<tr>
<td>TDR 112</td>
<td>Intermediate CAD Drafting for Construction and Design</td>
<td>5</td>
</tr>
<tr>
<td>TDR 113</td>
<td>Basic Drafting</td>
<td>5</td>
</tr>
<tr>
<td>TDR 124</td>
<td>Materials and Methods of Construction</td>
<td>5</td>
</tr>
<tr>
<td>TDR 134</td>
<td>Systems in Buildings</td>
<td>5</td>
</tr>
<tr>
<td>TDR 144</td>
<td>Design and Construction Environments</td>
<td>5</td>
</tr>
<tr>
<td>TDR 144</td>
<td>Design and Construction Environments</td>
<td>5</td>
</tr>
<tr>
<td>TDR 176</td>
<td>Advanced AutoCAD for Architectural Engineering Drafting</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TOTAL SPECIALTY CREDITS</td>
<td>34</td>
</tr>
</tbody>
</table>
Building Information Modeling (BIM) Short-Term Certificate

Building Information Modeling technology supports the principles of design and engineering and how the industry has made a paradigm shift to sustainability in whole building design. The student will develop skills in building computer generated models that unify architecture, engineering, construction and sustainability. Building Information Modeling/Management offers many solutions to fulfilling the challenge of sustainability and transition to a new medium.

TECHNICAL SPECIALTY COURSES

TDR 100 Basic BIM for Design and Construction .... 5
TDR 101 Intermediate BIM for Design and Construction .... 5
TDR 102 Advanced BIM for Design and Construction .... 5
TDR 103 Energy Analysis for Building Information Modeling .... 4

TOTAL PROGRAM CREDITS 19

Computer Aided Design (CAD) for Design and Construction Short-Term Certificate

This certificate prepares students for a growing number of entry-level jobs in engineering, construction, and architectural firms. Our laboratory is equipped with industry-standard computer-aided design (CAD) systems to provide state-of-the-art graphics training. Course work includes instruction and hands-on training in basic engineering, architectural, and drafting practices.

TECHNICAL SPECIALTY COURSES

TDR 111 Basic CAD Drafting for Construction and Design .... 5
TDR 112 Intermediate Drafting for Construction and Design .... 5
TDR 176 Advanced AutoCAD for Arch & Engineering Drafting .... 4

TOTAL PROGRAM CREDITS 14

Fine Arts in Acting (Drama)

Arts, Humanities and Social Services Division
(206) 934-3709

Certificate

A Certificate of Fine Arts is offered in Art, Jewelry Design and Drama, and an Associate of Fine Arts degree is offered in Art and Music. Students must complete at least 15 college transfer level credits (numbered 100 or above) with a GPA 2.0 or better at North Seattle College.

Candidates for the Certificate in Fine Arts in Acting (C.F.A.) must have successfully completed 90 quarter hours in college transfer-level (numbered 100 and above) courses with a GPA of 2.0 or better. At least 30 credits must be earned at North Seattle College and the final quarter of enrollment must be at NSC.
ELECTIVES - DRAMA-RELATED

Select 20 credits from courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART&amp; 100</td>
<td>Art Appreciation</td>
<td>5</td>
</tr>
<tr>
<td>ART 251</td>
<td>Art History</td>
<td>5</td>
</tr>
<tr>
<td>ART 252</td>
<td>Survey of Western Art: Medieval-Renaissance</td>
<td>5</td>
</tr>
<tr>
<td>ART 253</td>
<td>Survey of Western Art: Renaissance-Present</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 108</td>
<td>Rehearsal and Performance</td>
<td>2.5</td>
</tr>
<tr>
<td>DRMA 109</td>
<td>Rehearsal and Performance</td>
<td>2.5</td>
</tr>
<tr>
<td>DRMA 110</td>
<td>Rehearsal and Performance</td>
<td>2.5</td>
</tr>
<tr>
<td>DRMA 116</td>
<td>Fundamentals of Acting for the Camera</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 200</td>
<td>Special Projects in Drama</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 201</td>
<td>Special Studies: Drama</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 202</td>
<td>Special Studies</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 271</td>
<td>Acting</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 272</td>
<td>Acting</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 273</td>
<td>Acting</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 291</td>
<td>Special Projects in Drama: Theatrical Internship</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 292</td>
<td>Special Projects in Drama: Theatrical Internship</td>
<td>1.5</td>
</tr>
<tr>
<td>DRMA 298</td>
<td>Individual Projects in Theater</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGL&amp; 112</td>
<td>Introduction to Fiction</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 224</td>
<td>Shakespeare 1</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 225</td>
<td>Shakespeare 2</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 226</td>
<td>British Literature I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 227</td>
<td>British Literature II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 228</td>
<td>British Literature III</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 244</td>
<td>American Literature I</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 245</td>
<td>American Literature II</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 246</td>
<td>American Literature III</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 258</td>
<td>Literature of American Cultures</td>
<td>5</td>
</tr>
<tr>
<td>HUM 104</td>
<td>Visual Thinking</td>
<td>5</td>
</tr>
<tr>
<td>HUM 110</td>
<td>Introduction to American Film</td>
<td>5</td>
</tr>
<tr>
<td>HUM 200</td>
<td>Reading the Media</td>
<td>5</td>
</tr>
<tr>
<td>MUSC 100</td>
<td>Music in the Western World</td>
<td>5</td>
</tr>
<tr>
<td>MUSC 126</td>
<td>Beginning Group Piano - 1st Quarter</td>
<td>2</td>
</tr>
<tr>
<td>MUSC 140</td>
<td>College Choir</td>
<td>5</td>
</tr>
</tbody>
</table>

DRAMA-RELATED ELECTIVES CREDITS 20

ELECTIVES - TECHNICAL THEATER

Total of 15 credits to be taken for 2.5 credits each, in at least 3 different quarters. Students should arrange their credit needs before enrolling.

Select credits from courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRMA 211</td>
<td>Theater Management</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 224</td>
<td>Production and Stage Management</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 231</td>
<td>Props and Sound</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 241</td>
<td>Costuming</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 251</td>
<td>Stage Scenery</td>
<td>5</td>
</tr>
<tr>
<td>DRMA 261</td>
<td>Stage Lighting</td>
<td>5</td>
</tr>
</tbody>
</table>

TECHNICAL THEATER ELECTIVES CREDITS 15

TOTAL PROGRAM CREDITS 87-90

Fine Arts in Art

Arts, Humanities and Social Services Division
(206) 934-3709

Certificate

A Certificate of Fine Arts is offered in Art, Jewelry Design and Drama, and an Associate of Fine Arts degree is offered in Art and Music. Students must complete at least 15 college transfer level credits (numbered 100 or above) with a GPA 2.0 or better at North Seattle College.

Candidates for the Certificate in Fine Arts: Art must complete 85 credits in college transfer level courses (numbered 100 and above) with a grade point average (GPA) of 2.0 or better. At least 15 credits must be earned at North Seattle College and the final quarter must be in residence at North Seattle College (NSC).

The Certificate in Fine Arts: Art certifies completion of approved work and is suitable for students currently working in art, but it is not a transfer certificate. Students seeking a B.A. or B.F.A. should consult NSC Associate of Arts degree requirements and the graduation requirements of the university at which they intend to enroll. All C.F.A.: Art students must plan their program with their art advisor. Some of the art courses are offered only once a year, so students should consult the annual schedule (Winter and Spring but not Fall). Substitution may be made only with the approval of the art advisor and the Dean of Arts, Humanities & Social Sciences Division. Students must submit a portfolio of at least eight pieces during their final quarter for evaluation; this portfolio will be evaluated by the art faculty. Final approval and recommendation to award the C.F.A.: Art rests with the Art faculty.
Most General Education requirements for this certificate are met by course content in various art courses, communication by ART 251, 252, 253, and human relations by ART 290. Students must take five credit computation course from one of the following: MATH& 107 or above, BUS 116, or ACCT 110 or above.

Although it may be possible to complete this program in two years, it is suggested that it be spread over more time to allow better assimilation of skills and more flexible scheduling. Art courses require more time than is allowed in class alone, as well as high energy and involvement for truly effective learning. The art faculty, therefore, highly recommends that students should consider two studio courses per quarter a maximum.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Design</td>
<td>5</td>
</tr>
<tr>
<td>ART 102</td>
<td>Design</td>
<td>5</td>
</tr>
<tr>
<td>ART 111</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 112</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 113</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 251</td>
<td>Art History</td>
<td>5</td>
</tr>
<tr>
<td>ART 252</td>
<td>Survey of Western Art: Medieval-Renaissance</td>
<td>5</td>
</tr>
<tr>
<td>ART 253</td>
<td>Survey of Western Art: Renaissance-Present</td>
<td>5</td>
</tr>
<tr>
<td>ART 290</td>
<td>the Art Business</td>
<td>5</td>
</tr>
</tbody>
</table>

**GENERAL EDUCATION COURSES**

Total required Computation Course credits: 5
Select five credits from courses as noted below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 107</td>
<td>Math in Society</td>
<td>5</td>
</tr>
</tbody>
</table>

**ART ELECTIVES**

Total required ART Electives credits: 35 minimum between Group 1 and Group 2. ART Electives by group listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART &amp; 100</td>
<td>Art Appreciation</td>
<td>5</td>
</tr>
<tr>
<td>ART 299</td>
<td>Special Problems in Art</td>
<td>5</td>
</tr>
</tbody>
</table>

**ART ELECTIVES GROUP 1: 2-DIMENSIONAL ART**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 114</td>
<td>Introduction to Digital Photography I</td>
<td>5</td>
</tr>
<tr>
<td>ART 121</td>
<td>Introduction to Printmaking</td>
<td>5</td>
</tr>
</tbody>
</table>

**ART ELECTIVES GROUP 2: 3-DIMENSIONAL ART**

Approved Art Electives must be taken in sequence; however, completion of a sequence is not required.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Sculpture</td>
<td>5</td>
</tr>
<tr>
<td>ART 212</td>
<td>Sculpture</td>
<td>5</td>
</tr>
<tr>
<td>ART 213</td>
<td>Sculpture</td>
<td>5</td>
</tr>
<tr>
<td>ART 221</td>
<td>Ceramic Art</td>
<td>5</td>
</tr>
<tr>
<td>ART 222</td>
<td>Ceramic Art</td>
<td>5</td>
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<tr>
<td>ART 223</td>
<td>Ceramic Art</td>
<td>5</td>
</tr>
<tr>
<td>ART 281</td>
<td>Jewelry Design I</td>
<td>5</td>
</tr>
<tr>
<td>ART 282</td>
<td>Jewelry Design II</td>
<td>5</td>
</tr>
<tr>
<td>ART 283</td>
<td>Introduction to Alloying and Jewelry Casting</td>
<td>5</td>
</tr>
<tr>
<td>ART 284</td>
<td>Bench Techniques and Practices</td>
<td>5</td>
</tr>
<tr>
<td>ART 285</td>
<td>Metal Techniques for Small Scale Sculpture</td>
<td>5</td>
</tr>
</tbody>
</table>

**HVAC**

**HVAC Technician Certificate**

The HVAC program, in partnership with HVAC Learning Systems and Lennox, provides systems training in heating, ventilation, air-conditioning and refrigeration. The only one of its kind in the country available at a two-year college, North's HVAC program tailors skills to employer needs and can help students get an internship or entry-level job with career potential. Two certificate options and a degree are offered.

**PREREQUISITES**

Placement into ENGL 097 or ENGL 098 or higher, or equivalent Test into MATH 084 or higher, or have taken equivalent or higher level class.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 160</td>
<td>Introduction to Electricity and Electronics</td>
<td>5</td>
</tr>
<tr>
<td>HVC 101</td>
<td>Essentials of HVAC</td>
<td>5</td>
</tr>
<tr>
<td>HVC 210</td>
<td>HVAC Cooling Systems Installation</td>
<td>5</td>
</tr>
<tr>
<td>HVC 211</td>
<td>HVAC Systems Installation II</td>
<td>5</td>
</tr>
<tr>
<td>HVC 212</td>
<td>HVAC System Installation &amp; Nate PREP</td>
<td>5</td>
</tr>
<tr>
<td>HVC 220</td>
<td>Green HVAC</td>
<td>3</td>
</tr>
<tr>
<td>HVC 226</td>
<td>HVAC Electronics and Control Systems</td>
<td>5</td>
</tr>
<tr>
<td>HVC 228</td>
<td>Energy Performance for the Field Technician</td>
<td>5</td>
</tr>
</tbody>
</table>
HVAC/Sustainable Building Engineering Technician Associate of Applied Science Degree (A.A.S.)

Students completing the HVAC/Sustainable Building Engineering Technician degree will be qualified to work in multiple industries in the roles of designing, operating and inspecting HVAC systems. Additionally, students will be able to smoothly transition into the Sustainable Building Technologies B.A.S. Program at South Seattle College.

PREREQUISITES:
Placement into English 097/098 or higher or equivalent. Test into Math 098 or higher, or have taken an equivalent or higher level class.

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

BUS 169 Using Computers in Business ............ 5

TECHNICAL SPECIALTY COURSES
EET 160 Introduction to Electricity and Electronics ... 5
ENGL& 235 Technical Writing ....................... 5
ENVS 170 Energy and Resources - Now and Future ... 5
HVC 101 Essentials of HVAC ........................ 5
HVC 220 Green HVAC .................................. 3
HVC 226 HVAC Electronics and Control Systems .... 5
HVC 251 Load Estimation for HVAC Systems ........ 5
HVC 254 Sustainable Urbanism and Architecture .... 5
HVC 258 Principles of Passive Building Design ....... 5
HVC 260 HVAC Airside Systems ........................ 5
HVC 261 HVAC Hydronic Systems ..................... 5
TDR 100 Basic BIM for Design and Construction ..... 5
TDR 101 Intermediate BIM for Design and Construction . . 5
TDR 102 Advanced BIM for Design and Construction . . 5
TDR 103 Energy Analysis Fr Building Information Modeling ........................................ 4

TECHNICAL SPECIALTY CREDITS 72

RELATED INSTRUCTION
BUS 236 Interpersonal Communications for the Workplace ........................................ 5
EET 109 Mathematical Applications for Circuit Analysis ........................................ 5
ENGL& 101 English Composition I ................... 5
ENVS& 100 Survey of Environmental Science ... 5
Followings can be substituted:
U.S. Cultures or Global Studies course .................. 5

TECHNICAL SPECIALTY CREDITS 72

TOTAL PROGRAM CREDITS 92

Tech & Project Management
Associate of Applied Science - T Degree (A.A.S.-T)

Graduates with this degree in Heating, Ventilation, and Air Conditioning (HVAC) Project Management are prepared to work as project managers in residential and light commercial settings. This degree is designed to provide all the skills needed to successfully compete for HVAC project manager at entry level positions or transfer those skills to a four-year institution.

PREREQUISITES
English: placement into ENGL 097 or ENGL 098 or higher; or equivalent.
Math: test into MATH 097 or MATH 098 or higher; or have taken equivalent or higher level class

TECHNICAL SPECIALTY COURSES
BUS 118 Project Management Introduction and Overview ... 5
BUS 119 Leadership and Management Skills ........ 3
BUS 229 Project Management Tools Techniques and Control ......................... 5
EET 160 Introduction to Electricity and Electronics ........ 5
ENGL& 230 Technical Writing .......................... 3
HVC 101 Essentials of HVAC ........................... 5
HVC 210 HVAC Cooling Systems Installation ........ 5
HVC 211 HVAC Systems Installation II ................. 5
HVC 212 HVAC System Installation & Nate PREP .... 5
HVC 220 Green HVAC .................................... 3

RELATED INSTRUCTION
CMST& 210 Interpersonal Communication ............... 5
EET 109 Mathematical Applications for Circuit Analysis .... 5
Following can be substituted:
MATH&107 Math in Society ................................ 5
ENGL& 101 English Composition I ............. 5
Following can be substituted:
ENGL&102 English Composition II ...................... 5
ENVS 150 Environmental Issues and Problems ....... 5
PHYS& 114 General Physics I with Lab ............... 5

ELECTIVES
E Electives (See advising for list of approved electives) ........ 9

TOTAL PROGRAM CREDITS 90
Industrial Power and Control

Workforce Instruction Division
(206) 934-3730

The Industrial Power & Control Program offers a one-year certificate in Sustainable and Conventional Energy and Control Technology and a two-year Associate of Applied Science degree in Industrial Power & Control Technology. This program prepares students for entry level employment in companies or government organizations that manufacture, service, sell, design or support electrical and electronic systems that control machinery, automation, and/or processes. Emphasis is placed on the control of large electrical currents and large electromechanical systems through solid state, digital, and microprocessor devices. The program involves in-depth study of industrial controls, fluid power, AC and DC rotating equipment, instrumentation and measurement, and system control principles. Sustainable and Conventional Energy and Control differs from Electronics in the scale and application of electrical, electronic and mechanical systems, and may be considered “Industrial Electronics.”

Associate of Applied Science Degree (A.A.S.)

PREREQUISITES
For placement testing: contact Testing Center, 934-3674
To begin program, students must test into the English and Math courses listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
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<tr>
<td>ENGL 097</td>
<td>English 097: Integrated Reading and Writing I</td>
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<tr>
<td>MATH 084</td>
<td>Algebra I</td>
<td>5</td>
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**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL 201</td>
<td>Energy Generation Conversion and Sustainability</td>
<td>5</td>
</tr>
<tr>
<td>EEL 202</td>
<td>Industrial Motor Controls</td>
<td>5</td>
</tr>
<tr>
<td>EEL 203</td>
<td>Industrial Motor Drives</td>
<td>5</td>
</tr>
<tr>
<td>EET 105</td>
<td>Introduction to Technology</td>
<td>2</td>
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<tr>
<td>EET 106</td>
<td>Introduction to Soldering</td>
<td>1</td>
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<tr>
<td>EET 108</td>
<td>Introduction to Fiber Optics</td>
<td>5</td>
</tr>
<tr>
<td>EET 112</td>
<td>Fundamentals of Fluid Power &amp; Alternative Energy</td>
<td>5</td>
</tr>
<tr>
<td>EET 114</td>
<td>Applied Physics</td>
<td>5</td>
</tr>
<tr>
<td>EET 131</td>
<td>IT Essentials I - A+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>EET 132</td>
<td>IT Essentials A+ Certification Advanced</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 138</td>
<td>Robotic Applications</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 165</td>
<td>Analog Circuits and Devices</td>
<td>5</td>
</tr>
<tr>
<td>EET 170</td>
<td>Digital Electronics &amp; Plcs I</td>
<td>5</td>
</tr>
<tr>
<td>EET 219</td>
<td>Metrology and Measurement Science</td>
<td>3</td>
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</table>

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUS 112</td>
<td>Multi-Cultural Issues in the American Workplace</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>EET 109</td>
<td>Mathematical Applications for Circuit Analysis</td>
<td>5</td>
</tr>
<tr>
<td>IT 122</td>
<td>Network OS I - Windows Client OS</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**

111

Information Technology

Workforce Instruction Division
(206) 934-3730

Cisco Certified Network Associate Short-Term Certificate

This Certificate of Completion for Cisco Certified Network Associate training is intended for students not already enrolled in an Information Technology, Network Administration or Telecommunications Technology certificate or degree program. It is intended to be completed in three academic quarters, but students may be able to complete it in fewer quarters depending on experience and preparation.

Graduates of this Certificate of Completion program can expect to pass Cisco’s CCENT Cisco Certified Entry Network Technician and CCNA Cisco Certified Network Associate exams. The instruction based on the online curriculum and books provided by Cisco Systems are comprehensive in describing how the Internet/Internets work based on intense practice configuring Cisco routers and switches through a command line interface called IOS (Internet Operating System) and a simulation program called Packet Tracer.

Cisco II (IT 144) concentrates on configuring routing using RIP (Routing Information Protocol), EIGRP (Enhanced Interior Gateway Routing Protocol) and OSPF (Open Shortest Path First) routing protocols.

Cisco III (IT 146) combines two Cisco classes; the first class covers switch configuration and Wireless access theory while the second class covers remote access to the Internet, security and network management as a whole.

While configuration labs concentrate on and utilize Cisco equipment, the preparation provided by the Certificate of Completion for Cisco Certified Network Associate training applies to all router and switch vendors equipment based on the fact that most protocols used by Cisco and all other vendors are the same and are based on open standards.

**PREREQUISITES**

There are no formal program prerequisites, but students are strongly advised to have skills comparable to EET 131 (IT Essentials I/A+ Certification) and EET 132 (IT Essentials II/Advanced A+ Certification). Cisco I must be completed before enrolling in Cisco II. Cisco II must be completed before enrolling in Cisco III.

### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>IT 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>IT 146</td>
<td>Network Management - Cisco III</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Technical Specialty Course Credits: 15**

**Microsoft Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 122</td>
<td>Network OS 1 - Windows Client OS</td>
<td>5</td>
</tr>
<tr>
<td>IT 124</td>
<td>Network OS 2 - Windows Server</td>
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</table>

**Total Microsoft Track Credits: 10**

**Unix Track**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IT 135</td>
<td>Introduction to UNIX</td>
<td>5</td>
</tr>
<tr>
<td>IT 138</td>
<td>UNIX for Network Administration</td>
<td>5</td>
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</table>

**Total Unix Track Credits: 10**

**Cisco Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>IT 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>IT 146</td>
<td>Network Management - Cisco III</td>
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</table>

**Total Cisco Track Credits: 15**

**Related Instruction**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 118</td>
<td>Project Management Introduction and Overview</td>
<td>.5</td>
</tr>
<tr>
<td>BUS 236</td>
<td>Interpersonal Communications for the Workplace</td>
<td>.5</td>
</tr>
</tbody>
</table>

**Total Related Instruction Credits: 10**

**Total Program Credits: 35-40**

### Controlled Electronic Systems Associate of Applied Science Degree (A.A.S.)

The IT Controlled Electronic Systems Associate of Applied Science degree is a 2-year degree focused on developing skills needed to install, maintain, and monitor information technology systems and IT-controlled electronic systems such as security systems, entertainment systems, and HVAC systems.

**PREREQUISITES**

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.
Network Administration Linux/UNIX Completion Short-Term Certificate

This Certificate of Completion in Linux/UNIX administration is intended for students not already enrolled in a Network Administration program. It is intended to be completed in three academic quarters, but students may be able to complete it in fewer quarters depending on experience and preparation.

PREREQUISITES

There are no formal program prerequisites, but students are strongly advised to have skills comparable to EET 131 (IT Essentials I/A+ Certification) and EET 132 (IT Essentials II/Advanced A+ Certification). Courses are intended to be taken in the order given. Students may take classes simultaneously with instructor’s permission. Credit may be awarded for specific work experience or formal training at other institutions.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 131</td>
<td>IT Essentials I - A+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>EET 132</td>
<td>IT Essentials A+ Certification Advanced</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>EET 161</td>
<td>D.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 162</td>
<td>A.C. Principles of Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 163</td>
<td>Solid State Electronics</td>
<td>5</td>
</tr>
<tr>
<td>EET 165</td>
<td>Analog Circuits and Devices</td>
<td>5</td>
</tr>
<tr>
<td>IT 122</td>
<td>Network OS 1 - Windows Client OS</td>
<td>5</td>
</tr>
<tr>
<td>IT 124</td>
<td>Network OS 2 - Windows Server</td>
<td>5</td>
</tr>
<tr>
<td>IT 135</td>
<td>Introduction to UNIX</td>
<td>5</td>
</tr>
<tr>
<td>IT 138</td>
<td>UNIX for Network Administration</td>
<td>5</td>
</tr>
<tr>
<td>IT 140</td>
<td>UNIX Shell Scripts with Perl</td>
<td>5</td>
</tr>
<tr>
<td>IT 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>IT 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>IT 146</td>
<td>Network Management - Cisco III</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 15
### Network and Server Administration Specialist
#### Associate of Applied Science Degree (A.A.S.)

This two year program concentrates on UNIX/Linux, Microsoft and Cisco operating system configuration, management and security. Information security concepts and best practices are woven into individual courses. Specific courses concentrating on information security topics are also offered. Many individual courses or combinations of courses are designed to also prepare students for passing Industry certifications sponsored by CompTIA, Microsoft and Cisco. The version of Microsoft Windows offered will depend upon the current commercial release. This is a full-time program, but students may elect to take it on a part-time basis. There is a related certificate program.

Graduates of the Network Infrastructure & Security Support program find jobs as network technician, assistant network administrator, PC technician, workstation support technician, technical support technician or computer systems technician.

**PREREQUISITES**
- English placement into ENGL&101
- Math placement into MATH 084 or MATH 097

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 135</td>
<td>Introduction to UNIX</td>
<td>5</td>
</tr>
<tr>
<td>IT 138</td>
<td>UNIX for Network Administration</td>
<td>5</td>
</tr>
<tr>
<td>IT 140</td>
<td>Network Management - UNIX</td>
<td>5</td>
</tr>
<tr>
<td>IT 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>IT 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>IT 146</td>
<td>Network Management - Cisco III</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS: 40**

### Programming and IT Network Support
#### Associate of Applied Science - T Degree (A.A.S.-T)

Take the first step to become an IT Professional. Graduates of the Programming and IT Network Support degree are dually prepared for both the workplace and to transfer into the Application Development Bachelor of Applied Science (B.A.S.) Degree program. Learn beginning programming, networking, and troubleshooting skills so you can get an entry-level IT job as you pursue your B.A.S. degree.

**PREREQUISITES**

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EE 131</td>
<td>IT Essentials I - A+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>IT 102</td>
<td>Introduction to Programming</td>
<td>5</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computer Programming</td>
<td>5</td>
</tr>
<tr>
<td>CSC 111</td>
<td>Computers for Math and Science</td>
<td>5</td>
</tr>
<tr>
<td>CSC 142</td>
<td>Computer Programming I</td>
<td>5</td>
</tr>
<tr>
<td>IT 102</td>
<td>Introduction to Programming</td>
<td>5</td>
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</table>

**TOTAL PROGRAM CREDITS: 90**
### Professional/Technical Programs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 111</td>
<td>Internet and Web Authoring Using XHTML</td>
<td>5</td>
</tr>
<tr>
<td>IT 122</td>
<td>Network OS 1 - Windows Client OS</td>
<td>5</td>
</tr>
<tr>
<td>IT 125</td>
<td>Using Structured Query Language and SQL Server</td>
<td>5</td>
</tr>
<tr>
<td>IT 124</td>
<td>Network OS 2 - Windows Server</td>
<td>5</td>
</tr>
<tr>
<td>IT 135</td>
<td>Introduction to UNIX</td>
<td>5</td>
</tr>
<tr>
<td>IT 138</td>
<td>UNIX for Network Administration</td>
<td>5</td>
</tr>
<tr>
<td>IT 142</td>
<td>Network Management - Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>IT 144</td>
<td>Network Management - Cisco II</td>
<td>5</td>
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</table>

**Technical Specialty Credits**: 61

### Related Instruction

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>HUM 105</td>
<td>Intercultural Communication</td>
<td>5</td>
</tr>
</tbody>
</table>

*Following can be substituted:*

- SOC 101 Intro to Sociology | 5
- MATH& 141 | Precalculus I | 5
- MATH& 146 | Introduction to Statistics | 5
- U.S. Cultures | 5


<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

*Following can be substituted: Global Studies course*

- Natural World - Lab Science | 5


**Total Program Credits**: 91

### Internships

**Internships / Cooperative Education**

(206) 934-3734

Internships provide students with opportunities to earn college credit while gaining practical work experience in their field of study. The Internship program consists of Cooperative Work Experience classes CWE 101, 102, 110 and for B.A.S. CWE 494 and 495. For more information regarding the CWE series please contact the Internship office within the Workforce Instruction Division.

### Jewelry Design

**Arts, Humanities and Social Sciences Division**

(206) 934-3709

A Certificate of Fine Arts is offered in Art, Jewelry Design and Drama, and an Associate of Fine Arts degree is offered in Art and Music. Students must complete at least 15 college transfer level credits (numbered 100 and above) with a GPA 2.0 or better at North Seattle College.

Candidates for the Certificate in Jewelry Design must complete 60 credits in the college transfer level courses (numbered 100 and above) with a grade point average (GPA) of 2.5 or better. The required Jewelry classes (25 credits) must be taken here at North Seattle College. At the completion of the required courses, the students must mount an exhibition of their work either on campus or at an approved venue. This should be a solid body of work expressing their mastery of materials.

Final approval and recommendation to award the CJD rests with the ART faculty. The Certificate in Jewelry Design certifies completion of approved work, and is suitable for students currently working in Art, but it is not a transfer certificate.

Students seeking a B.A. or B.F.A. should consult NSC Associate of Arts degree requirements and the graduation requirements of the University at which they intend to enroll.

All CJD art students must have an art advisor and must plan their program with that advisor. Some of the art courses are only offered once a year and students should consult their advisor and the annual schedule. Substitution may be made with the approval of the Art advisor and the Dean of Arts, Humanities & Social Sciences Division.

Most General Education requirements for this certificate are met by course content in various Art courses. Communication (5 credits) by ART 251, 252, 253; Human Relations (5 credits) can be fulfilled by CMST& 210 or CMST& 230. Students must take a 5 credit computation course from ACCT 110 or above.

This certificate is a 4 quarter program that can be completed during the regular school year and in the following summer quarter.

### Certificate of Fine Arts, Jewelry Design

#### REQUIRED COURSES - JEWELRY DESIGN

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 281</td>
<td>Jewelry Design I</td>
<td>5</td>
</tr>
<tr>
<td>ART 282</td>
<td>Jewelry Design II</td>
<td>5</td>
</tr>
<tr>
<td>ART 283</td>
<td>Introduction to Alloying and Jewelry Casting</td>
<td>5</td>
</tr>
<tr>
<td>ART 284</td>
<td>Bench Techniques and Practices</td>
<td>5</td>
</tr>
<tr>
<td>ART 285</td>
<td>Metal Techniques for Small Scale Sculpture</td>
<td>5</td>
</tr>
</tbody>
</table>

#### REQUIRED COURSES - ART

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 101</td>
<td>Design</td>
<td>5</td>
</tr>
<tr>
<td>ART 111</td>
<td>Drawing</td>
<td>5</td>
</tr>
<tr>
<td>ART 210</td>
<td>Digital &amp; Graphic Art - Photoshop + Illustrator</td>
<td>5</td>
</tr>
<tr>
<td>ART 251</td>
<td>Art History</td>
<td>5</td>
</tr>
</tbody>
</table>
Following can be substituted:
ART 252 Art History ........................ 5
-OR-
ART 253 Art History ........................ 5
Art history courses are taught at Seattle Central or other colleges.
ART 290 the Art Business ...................... 5

GENERAL EDUCATION COURSES
Total required Communication course credits: 5
Met by ART 251 (or ART 252 or ART 253 ) above
Total required Human Relations course credits: 5
Total required Computation Course credits: 5
Select credits from notated courses below:
ACCT 110 Introduction to Accounting/Bookkeeping! .... 5
Following can be substituted:
ACCT course higher than ACCT 110
This course will satisfy Computation Course Requirement.
CMST& 210 Interpersonal Communication ............ 5
This course will satisfy the Human Relations Course Requirement.
CMST& 230 Small Group Communication ............. 5
This course will satisfy the Human Relations Course Requirement.

TOTAL PROGRAM CREDITS 60

Medical Assisting

Workforce Instruction Division
(206) 934-3790

The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org), upon the recommendation of the Medical Assisting Review Board (MAERB). Graduates of this program are eligible to sit for the national CMA exam and are also eligible for the Washington State Medical Assistant Certified Credential. The Medical Assisting program has cohorts that begin in the Fall and Spring. Classes offered are online, face-to-face and hybrid. Scheduled labs and lectures are during the week Monday – Thursday. We are a competency based program with hands on labs where the student works in a group setting or one on one with another student. Class size makes it possible to get one-on-one attention from the instructor as needed.

In addition to the various fees charged by the college, students will have additional expenses, such as lab fees, scrubs and accessories, physical examination costs, program costs such as background checks, a $35 application fee and an immunization registry that is online.

To complete the program a 3.0 grade or higher is required in all Medical Assisting (AMA) courses and a 2.0 grade or higher is required in all other courses.

Certificate

PREREQUISITES
Prerequisite courses must be taken within the last ten years.
AHE 103 Math for Health Careers .................. 3
ENGL& 101 English Composition I .................. 5

TECHNICAL SPECIALTY COURSES
AMA 100 Introduction to Healthcare and Critical Thinking 5
AMA 101 Intercultural Communication in Patient Care .3
AMA 102 Medical Law and Ethics ................... 2
AMA 117 Medical Terminology ...................... 4
AMA 118 Disease and Pathology for Medical Assistants .5
AMA 119 Anatomy and Physiology for Medical Assistants .5
AMA 120 Front Office Basics ....................... 4
AMA 125 Introduction to Medical Insurance and Coding .5
AMA 140 Patient Care ................................ 5
AMA 230 Medical Office Management .............. 3
AMA 231 Pharmacology ............................. 3
AMA 232 Sterile Procedures .......................... 4
AMA 233 Diagnostic Procedures ..................... 4
AMA 234 Phlebotomy for the Medical Assistant .....3
AMA 235 Urinalysis, Microbiology, and Chemistry. 4
AMA 236 Credentials & Employment ................ 2
AMA 250 Medication Administration ................ 5
AMA 290 Externship & CMA Review ............... 9
NUTR& 101 Nutrition ................................ 5
PSYC& 100 General Psychology .................... 5

TOTAL PROGRAM CREDITS 85

Medical Assisting

Associate of Applied Science Degree (A.A.S.)

The Associate of Applied Science Degree in Medical Assisting provides a more liberalized education than the certificate program and many employers view the A.A.S. degree as a sign of increased competency and readiness for career or salary Advancement. The Medical Assisting program is a competency based curriculum that uses a combination of on line learning, hybrid and face to face classes. Currently, students may enter the program any quarter. Students must practice the competency skills hands-on procedures in the classroom with an instructor during designated times.

North Seattle College’s Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs on recommendation of the Curriculum Review Board of the American Association of Medical Assistants’ Endowment (CRA- AAMAE). CAAHEP 1361 Park Street, Clearwater, FL 33756, (727) 210-2350. Graduates of this program are eligible to sit for the Certified Medical Assistant (CMA) exam following graduation and are also eligible for the Washington State Medical Assistant-Certified License upon completion of the entire Medical Assisting program including the externship. The CMA credential is obtained through a national exam given by the AAMA.
In addition to the various fees charged by the college, students will have additional expenses, such as lab fees, scrubs and accessories, physical examination costs, program costs such as background checks, a $35.00 application fee and an immunization registry that is online.

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

To complete the program a 3.0 grade or higher is required in all Medical Assisting (AMA) courses and a 2.0 grade or higher is required in all other courses.

**PREREQUISITES**
Prerequisite courses must be taken within the last ten years.
AHE 103 Math for Health Careers ................. 3
ENGL& 101 English Composition I .................. 5

**TECHNICAL SPECIALTY COURSES**
AMA 100 Introduction to Healthcare and Critical Thinking 5
AMA 101 Intercultural Communication in Patient Care .. 3
AMA 102 Medical Law and Ethics ...................... 2
AMA 117 Medical Terminology ......................... 4
AMA 118 Disease and Pathology for Medical Assistants 5
AMA 119 Anatomy and Physiology for Medical Assistants .5
AMA 120 Front Office Basics ........................... 4
AMA 125 Introduction to Medical Insurance and Coding .. .5
AMA 140 Patient Care .................................. 5
AMA 230 Medical Office Management ................. 3
AMA 231 Pharmacology ................................ 3
AMA 232 Sterile Procedures ............................ 4
AMA 233 Diagnostic Procedures ....................... 4
AMA 234 Phlebotomy for the Medical Assistant ........ 3
AMA 235 Urinalysis, Microbiology, and Chemistry ...... 4
AMA 236 Credentials & Employment .................. 2
AMA 250 Medication Administration .................. 5
AMA 290Externship & CMA Review ................... 9
NUTR& 101 Nutrition .................................. 5
PSYC& 100 General Psychology ........................ 5

**RELATED INSTRUCTION**
ENGL& 101 English Composition I .................. 5
U.S. Cultures ......................................... 5

Following can be substituted: Global Studies ............ 5
http://seattlecolleges.edu/intranet/getdocument.aspx?siteId=289&doctype=pdf&docid=5235

Human Relations Elective ................................ 5
College Level MATH course ............................. 5
This course meets the Quantitative Skills Requirement.

**TECHNICAL SPECIALTY CREDITS** 85

**RELATED INSTRUCTION CREDITS** 20

**TOTAL PROGRAM CREDITS** 105

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**Medical Office Administration Certificate**

An option of the Medical Assisting program, this program is intended to prepare the student for work in the administrative, clerical and management areas of an ambulatory care setting. It covers anatomy and physiology, terminology, pathology, safety, communication, professionalism and job search skills to enhance understanding in the clinic/office. No hands-on patient care tasks or procedures are included. This is an open-entry/open-exit, self-paced, variable-length program.

Students will have additional expenses other than the fees charged by the college. A separate list is available from the Medical Assisting program coordinator.

**PREREQUISITES**

Note: Courses must be taken within the last 10 years or the placement test is required. Contact Testing Center.

General: A high school diploma or GED or 18 years of age. Certain TechPrep agreements can be accepted (see MA program advisor).

Applicant should have oral English skills sufficient to communicate accurately with others in the medical field.

AHE 103 Math for Health Careers ..................... 3
ENGL& 101 English Composition I .................. 5

Following can be substituted:
ENGL&230 Technical Writing .................... 3
-OR-
AHE 100 Critical Thinking and Communications for Healthcare .......................... 5

**TECHNICAL SPECIALTY COURSES**
AHM 124 Introduction to Medical Transcription ........ 1
AMA 100 Introduction to Healthcare .................... 5
AMA 101 Intercultural Communication in Patient Care .. 3
AMA 102 Medical Law and Ethics .................... 2
AMA 103 Ethical Concepts ............................ 1
AMA 104 Office Emergencies ........................... 2
AMA 106 Patient History/Documentation and Physical Exam .................................. 1
AMA 112 Credentials and Employment ................. 1
AMA 114 Basic Psychology Principles .................. 1
AMA 115 HIV/AIDS .................................... 1
AMA 120 Front Office Basics ........................... 4
AMA 121 Patient Scheduling ............................ 1
AMA 122 Medical Records and Correspondence ........ 1
AMA 123 Daily Financial Management ................ 1
AMA 125 Introduction to Medical Insurance and Coding .. 5
AMA 170 Ap/Terminology/Pathology 1 - Introduction .. 2
AMA 171 Ap/Terminology/Pathology 2 - Skin/Senses .. 1
AMA 172 Ap/Terminology/Pathology 3 - Digestive System .. 1
AMA 173 Ap/Terminology/Pathology 4 - Male/Urinary System ............... 1
AMA 174 Ap/Terminology/Pathology 5 - Female Reproductive .................. 1
### Technical Specialty Courses

**BUS 210** Business and Economic Statistics ........... 5

**CWE 101** Portfolio, Job Search and Interviewing .......... 2

**CWE 110** Internship .................................. 3

**MSC 101** Introduction to Materials Science ..........  .5

**NANO 101** Introduction to Nanotechnology ............  .5

**NANO 220** Micro/Nanofabrication .......................... 5

**NANO 230** Nano/Micro Characterization Packaging & Testing ..........  .5

**NANO 250** Capstone/Practicum II .......................... 5

**TOTAL PROGRAM CREDITS**  ........................................... 35

### Nanotechnology

**Math and Science Division**

(206) 934-3746

Nanotechnology applies scientific and engineering principles to make new materials and observe structures by controlling matter on the nanoscale—the scale of atoms—one billionth of a meter. Cross-disciplinary in nature, the Nanotechnology program prepares you to work in the micro- or nanotechnology industries, including cleanroom environments, in a variety of fields ranging from cosmetics to aeronautics, electronics to water filtration.

**Nanotechnology Certificate**

This year-long certificate is intended for people who already have work or academic experience in microelectronics, biotechnology, optics or similar technical fields. Through this program, students will become familiar with the field of nanoscience and proficient in nanotechnological protocols. Potential students who do not meet the prerequisites for this certificate, please see the A.A.S.-T degree in nanotechnology.

**PREREQUISITES**

Two quarters of college-level physics, all with a minimum GPA of 2.0

Either of the following chemistry sequences, all with a minimum GPA of 2.0

- CHEM& 121 and CHEM& 131
- CHEM& 161, CHEM& 162 and CHEM& 163

**TECHNICAL SPECIALTY COURSES**

**BUS 210** Business and Economic Statistics ........... 5

**CWE 101** Portfolio, Job Search and Interviewing .......... 2

**CWE 110** Internship .................................. 3

**MSC 101** Introduction to Materials Science ..........  .5

**NANO 101** Introduction to Nanotechnology ............  .5

**NANO 220** Micro/Nanofabrication .......................... 5

**NANO 230** Nano/Micro Characterization Packaging & Testing ..........  .5

**NANO 250** Capstone/Practicum II .......................... 5

**PHYS& 114** General Physics I with Lab .................. 5

**PHYS& 115** General Physics II with Lab .................. 5

**Following can be substituted:**

**PHYS& 116** General Physics III ......................... 5
Professional/Technical Programs

Technical Electives

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 161</td>
<td>Human Genetics</td>
<td>5</td>
</tr>
<tr>
<td>CSC 142</td>
<td>Computer Programming I</td>
<td>5</td>
</tr>
<tr>
<td>EET 137</td>
<td>Introduction to Robotics</td>
<td>5</td>
</tr>
<tr>
<td>ENVS 170</td>
<td>Energy and Resources - Now and Future</td>
<td>5</td>
</tr>
<tr>
<td>ENVS&amp; 100</td>
<td>Survey of Environmental Science</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 115</td>
<td>General Physics II with Lab</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 116</td>
<td>General Physics III with Lab</td>
<td>5</td>
</tr>
<tr>
<td>TDR 111</td>
<td>Basic CAD Drafting for Construction and Design</td>
<td>5</td>
</tr>
</tbody>
</table>

Technical Electives Credits: 5

Related Instruction

English Composition I | MATH& 141 | Pre-Calculus I | 5

Following can be substituted:

- MATH& 142 | Pre-Calculus II | 5
- MATH& 151 | Calculus I | 5

U.S. Cultures: 5

Following can be substituted: Global Studies Elective | 5

Related Instruction Credits: 20

Related Instruction - Human Relations Elective

Select one of the courses:

Interpersonal Communications for the Workplace | BUS 236 | 5

Intercultural Communication | HUM 105 | 5

Contemporary World | POLS 112 | 5

Introduction to Sociology | SOC& 101 | 5

Related Instruction - Human Relations Elective Credits: 5

Total Program Credits: 95

Nursing

Nursing Division
(206) 934-3790

Nursing Associate of Applied Science - T Degree (A.A.S.-T)

North Seattle College’s LPN-to-RN Ladder program provides an option for LPNs to complete coursework for a three-quarter RN program that will make them eligible to take the Registered Nurse (RN) state boards.

Successful completion of the program earns an Associate of Applied Science–T Degree of Nursing. Students must first successfully complete an LPN certificate program and the general education and related instruction requirements.

Minimum of 35 credits from an accredited Practical Nursing program.

Related Instruction - Prerequisites

A 2.8 grade or higher is required in all general education and related instruction prerequisite and corequisite requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp; 241</td>
<td>Human Anatomy and Physiology I</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 242</td>
<td>Human Anatomy and Physiology II</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 260</td>
<td>Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM&amp; 121</td>
<td>Intro to Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp; 200</td>
<td>Lifespan Psychology</td>
<td>5</td>
</tr>
</tbody>
</table>

Related Instruction - Corequisites

Corequisites may be taken while in the Nursing Program however, all corequisites must be completed before eligibility for the A.A.S.-T Degree in Nursing and RN NCLEX needed for an RN license.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH&amp; 146</td>
<td>Introduction to Statistics</td>
<td>5</td>
</tr>
<tr>
<td>NUTR&amp; 101</td>
<td>Nutrition</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted: Global Studies Elective | 5

Technical Specialty Courses

Advanced Nursing Skills | NUR 223 | 2

Health Promotion and Education in Nursing | NUR 224 | 2

Family Nursing | NUR 225 | 6

Care Management and Leadership | NUR 226 | 2

Complex Medical Surgical Psychiatric Nursing | NUR 227 | 7

Complex Nursing Medical Surgical Psychiatric Clinic | NUR 228 | 5

Family Nursing Clinical | NUR 231 | 4

Advanced Medical Surgical Nursing Care | NUR 237 | 3

Transition to Registered Nursing Practice | NUR 238 | 5

Total Program Credits: 116

Nursing Assistant Short-Term Certificate

The Nursing Assistant-Certified Program provides instruction in basic nursing care skills and nursing assistant scope of care including HIV/AIDS, 72 hours of supervised clinical training in a long-term care facility and CPR/First Aid for the Healthcare Provider. After successful completion of the Nursing Assistant-Certified Program, students are eligible to sit for the State of Washington NAC exam for certification as a Nursing Assistant.

Technical Specialty Courses

Introduction to Food Science | NTR 105 | 5

Nursing Assistant - Theory & Concepts | NUR 107 | 8

Total Program Credits: 14
**Nursing, Practical Associate of Applied Science Degree (A.A.S.)**

Candidates for the Practical Nursing certificate must meet specific course requirements established by the Washington State Board for Practical Nurse Examiners. The four-quarter program prepares graduates for practical nursing careers in acute care, long-term care and out-patient services. The first quarter is devoted to classroom and laboratory studies emphasizing nursing skills, general medical knowledge and behavior. The remaining program includes extensive clinical experience in health care agencies.

New daytime classes currently begin in Fall and Winter Quarters. Contact the division office for entry requirements, information on approval procedures, the application process and the schedule for orientation/advising sessions.

Completion of Certificate Requirements: 44 credits

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 100</td>
<td>Modified Fundamentals of Care</td>
<td>1</td>
</tr>
<tr>
<td>NUR 115</td>
<td>Introduction to Patient Care</td>
<td>2</td>
</tr>
<tr>
<td>NUR 116</td>
<td>Nursing Fundamentals</td>
<td>6</td>
</tr>
<tr>
<td>NUR 117</td>
<td>Nursing Fundamentals Lab</td>
<td>2</td>
</tr>
<tr>
<td>NUR 118</td>
<td>Clinical Nursing Skills I</td>
<td>2</td>
</tr>
<tr>
<td>NUR 119</td>
<td>Clinical Nursing Skills II</td>
<td>1</td>
</tr>
<tr>
<td>NUR 126</td>
<td>Role of the LPN</td>
<td>3</td>
</tr>
<tr>
<td>NUR 127</td>
<td>Medical/Surgical Nursing - Child/Adult I</td>
<td>6.5</td>
</tr>
<tr>
<td>NUR 128</td>
<td>Medical/Surgical Nursing - Child/Adult II</td>
<td>6</td>
</tr>
<tr>
<td>NUR 130</td>
<td>Critical Thinking in Nursing Practice</td>
<td>2</td>
</tr>
<tr>
<td>NUR 131</td>
<td>Clinical Nursing Practice I</td>
<td>3.5</td>
</tr>
<tr>
<td>NUR 133</td>
<td>Family Nursing Theory</td>
<td>1.5</td>
</tr>
<tr>
<td>NUR 134</td>
<td>Family Nursing Clinical</td>
<td>1.5</td>
</tr>
<tr>
<td>NUR 139</td>
<td>Transition to LPN Practice</td>
<td>4</td>
</tr>
<tr>
<td>NUR 141</td>
<td>Clinical Nursing Practice II</td>
<td>2</td>
</tr>
<tr>
<td>NUR 154</td>
<td>Intravenous Therapy Skills</td>
<td>1</td>
</tr>
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</table>

**ELECTIVES**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural World, the</td>
<td>5</td>
</tr>
<tr>
<td>U.S. Cultures</td>
<td>5</td>
</tr>
<tr>
<td>Communication</td>
<td>.5</td>
</tr>
<tr>
<td>General Education Elective</td>
<td>.21</td>
</tr>
<tr>
<td>Computation Elective</td>
<td>5</td>
</tr>
<tr>
<td>Human Relations Elective</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED ELECTIVE CREDITS** 46

**TOTAL PROGRAM CREDITS** 90

**Nursing, Practical Certificate**

Candidates for the Practical Nursing certificate must meet specific course requirements established by the Washington State Board for Practical Nurse Examiners. The four-quarter program prepares graduates for practical nursing careers in acute care, long-term care and out-patient services through classroom, laboratory and clinical studies. Emphasis is placed on nursing skills, general medical knowledge and behavior in various health care agencies.

New daytime classes currently begin in Fall and Winter Quarters. Contact the division office for entry requirements, information on approval procedures, the application process and the schedule for the required information session.

**PREREQUISITES: REQUIRED**

Successful completion of an approved Nursing Assistant program.

Math requirement: Compass test placement into MATH& 107 - Math in Society or higher within 2 years of application date or transcript showing successful completion of MATH 098 - Intermediate Algebra within 7 years of application date. Math requirement must be taken within 7 years of application date. All prerequisites must be completed with a 2.8 grade.

**Total Prerequisites: 30 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp; 241</td>
<td>Human Anatomy and Physiology I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: BIOL&amp; 160 - General Biology or CHEM&amp; 121 - Intro into Chemistry Must be taken within 7 years of application date.</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp; 242</td>
<td>Human Anatomy and Physiology II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Must be taken within 7 years of application date.</td>
<td></td>
</tr>
<tr>
<td>BIOL&amp; 260</td>
<td>Microbiology</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Must be taken within 7 years of application date.</td>
<td></td>
</tr>
<tr>
<td>CHEM&amp;121</td>
<td>Intro to Chemistry</td>
<td>.5</td>
</tr>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>.5</td>
</tr>
<tr>
<td>PSYC&amp; 200</td>
<td>Lifespan Psychology</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>Prerequisite: PSYC&amp; 100 - General Psychology</td>
<td></td>
</tr>
</tbody>
</table>

**PREREQUISITES: STRONGLY RECOMMENDED**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 103</td>
<td>Math for Health Careers</td>
<td>.3</td>
</tr>
<tr>
<td>AHI 100</td>
<td>Introduction to Medical Vocabulary</td>
<td>.3</td>
</tr>
</tbody>
</table>

**PREREQUISITES: A.A.S.-T DEGREE IN NURSING**

The following additional courses are required only for progression to the A.A.S.-T Degree in Nursing:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Cultures and Global Studies</td>
<td>.5</td>
</tr>
<tr>
<td>MATH&amp; 146</td>
<td>.5</td>
</tr>
<tr>
<td>NUTR&amp; 101</td>
<td>.5</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 115</td>
<td>Introduction to Patient Care</td>
<td>.2</td>
</tr>
<tr>
<td>NUR 116</td>
<td>Nursing Fundamentals</td>
<td>.6</td>
</tr>
<tr>
<td>NUR 117</td>
<td>Nursing Fundamentals Lab</td>
<td>.2</td>
</tr>
<tr>
<td>NUR 118</td>
<td>Clinical Nursing Skills I</td>
<td>.2</td>
</tr>
<tr>
<td>NUR 119</td>
<td>Clinical Nursing Skills II</td>
<td>.1</td>
</tr>
<tr>
<td>NUR 126</td>
<td>Role of the LPN</td>
<td>.3</td>
</tr>
<tr>
<td>NUR 127</td>
<td>Medical/Surgical Nursing - Child/Adult I</td>
<td>6.5</td>
</tr>
<tr>
<td>NUR 128</td>
<td>Medical/Surgical Nursing - Child/Adult II</td>
<td>6</td>
</tr>
</tbody>
</table>
Parent Education

**Workforce Instruction Division**
(206) 934-3783

North Seattle offers parent education programs each quarter with classes held on- and off-campus and online. Parents who enroll in the “Parent Education Child Study Laboratory” participate once a week with their child in a parent-operated cooperative preschool, pre-3, toddler, or infant education program. The student’s child is enrolled from one to four days a week, depending on the child’s age. Enrolled parents also attend parenting classes and learn decision-making and group management skills as officers or committee members in the cooperative. The program gives parents the opportunity to study child development and behavior; learn new ways to interact with children; share ideas and experiences with other adults; and share in their child’s early development and group

Pharmacy Technician

**Workforce Instruction Division**
(206) 934-3730

The Pharmacy Technician Certificate program is approved by the Washington State Board of Pharmacy to train students to work in various pharmacy settings. Students learn basic pharmacy skills (reading prescriptions, order entry, IV medication prep., etc.). The program is accredited by the American Society of Health-System Pharmacists (ASHP).

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement. To complete the program a 2.0 grade or higher is required in all courses.

**Pharmacy Technician Certificate**

**PREREQUISITES**
- College transcript showing successful completion of ENGL 097/098 with final placement into ENGL & 101 or placement into ENGL & 101 within the last two years of application date.
- College transcript showing successful completion of MATH 097 Elementary Algebra or equivalent or placement into MATH 098 Intermediate Algebra within one year of application date.
- College classes must be taken with the last five years of application date.
- High School Diploma or GED.
- Must be 18 years of age.
- Additional Information/Requirements:
  - National background check
  - Immunizations are required to be placed in externship
  - HIV/AIDS education minimum of four hours per State Pharmacy Quality Assurance Commission requirements
  - Active Washington State Pharmacy Assistant License/Registration

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA 117</td>
<td>Medical Terminology*</td>
<td>4</td>
</tr>
<tr>
<td>PHA 112</td>
<td>Pharmacy Law</td>
<td>2</td>
</tr>
<tr>
<td>PHA 115</td>
<td>Orientation to Pharmacy Practice</td>
<td>3</td>
</tr>
<tr>
<td>PHA 120</td>
<td>Pharmacy Calculations*</td>
<td>3</td>
</tr>
<tr>
<td>PHA 130</td>
<td>Over the Counter Drugs</td>
<td>2</td>
</tr>
<tr>
<td>PHA 140</td>
<td>Sterile Products/Aseptic Technique I*</td>
<td>3</td>
</tr>
<tr>
<td>PHA 141</td>
<td>Sterile Products/Aseptic Technique II*</td>
<td>3</td>
</tr>
<tr>
<td>PHA 145</td>
<td>Pharmacy Ethics*</td>
<td>1</td>
</tr>
<tr>
<td>PHA 146</td>
<td>Communications in Pharmacy Practice*</td>
<td>2</td>
</tr>
<tr>
<td>PHA 150</td>
<td>Pharmacology I</td>
<td>3</td>
</tr>
<tr>
<td>PHA 151</td>
<td>Pharmacology II</td>
<td>2</td>
</tr>
<tr>
<td>PHA 160</td>
<td>Pharmacy Technology I*</td>
<td>3</td>
</tr>
<tr>
<td>PHA 161</td>
<td>Pharmacy Technology II*</td>
<td>3</td>
</tr>
<tr>
<td>PHA 170</td>
<td>Pharmacy Records Management*</td>
<td>5</td>
</tr>
<tr>
<td>PHA 190</td>
<td>Pharmacy Technology Externship**</td>
<td>13</td>
</tr>
<tr>
<td>PHA 191</td>
<td>Job Skills and National Exam Preparation</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 53

*Courses marked with one asterisk (*) contain significant program related topics in the areas of communication, computation, human relations, and leadership.

**PHA 190: The Pharmacy Technician externship is usually split over a two-quarter time frame. A minimum of 13 credits, approximate 432 externship hours, must be completed satisfactorily for certification.
Pharmacy Technician
Associate of Applied Science Degree (A.A.S.)

The Pharmacy Technician Associate of Applied Science degree provides a more liberalized education than the certificate. Many employers view the degree as a sign of increased competence and readiness for career or salary advancement. The program is approved by the Washington State Board of Pharmacy to train students to work in various pharmacy settings. Students learn basic pharmacy skills (reading prescriptions, order entry, IV medication prep., etc.). The program is accredited by the American Society of Health-System Pharmacists (ASHP).

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement. To complete the program a 2.0 grade or higher is required in all courses.

Certificate

PREREQUISITES

- College transcript showing successful completion of ENGL 097/098 with final placement into ENGL 101 or placement into ENGL 101 within the last two years of application date.
- College transcript showing successful completion of MATH 097 Elementary Algebra or equivalent or placement into MATH 098 Intermediate Algebra within one year of application date.
- College classes must be taken with the last five years of application date.
- High School Diploma or GED.
- Must be 18 years of age.
- Additional Information/Requirements:
  - National background check
  - Immunizations are required to be placed in externship
  - HIV/AIDS education minimum of four hours per State Pharmacy Quality Assurance Commission requirements
  - Active Washington State Pharmacy Assistant License/Registration

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHA 161</td>
<td>Pharmacy Technology II*</td>
<td>3</td>
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<tr>
<td>PHA 170</td>
<td>Pharmacy Records Management*</td>
<td>5</td>
</tr>
<tr>
<td>PHA 190</td>
<td>Pharmacy Technician Externship</td>
<td>13</td>
</tr>
<tr>
<td>PHA 191</td>
<td>Job Skills and National Exam Preparation</td>
<td>1</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIALTY CREDITS 94

*Courses marked with one asterisk (*) contain significant program related topics in the areas of communication, computation, human relations, and leadership.

**PHA 190: The Pharmacy Technician externship is usually split over a two-quarter time frame. A minimum of 13 credits, approximate 432 externship hours, must be completed satisfactorily for certification.

GENERAL EDUCATION COURSES

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ABE 049</td>
<td>Introduction to Phlebotomy I</td>
<td>5</td>
</tr>
<tr>
<td>ABE 059</td>
<td>Introduction to Phlebotomy II</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 12

Phlebotomist

Phlebotomist Short-Term Certificate

This is an I-BEST Phlebotomy program. I-BEST (Integrated Basic Education and Skills Training) partners basic skills instructors with professional-technical skills instructors in the classroom to provide students with basic education and workforce skills. The two-course sequence of AHE 118 and AHE 119 includes theory of blood collection, supervised blood collection practice, and a 120-hour clinical externship. This program prepares students to work as phlebotomists in a clinical workplace.

PREREQUISITES

- Instructor Permission Required
- CASAS (Comprehensive Adult Student Assessment Systems) Reading and Listening minimum scores of 215 or COMPASS English Placement Test minimum score of 40.
- Concurrent enrollment in ABE 049 or ESL 059 required, except with placement into ENGL 101 or completion thereof.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 118</td>
<td>Introduction to Phlebotomy I</td>
<td>5</td>
</tr>
<tr>
<td>AHE 119</td>
<td>Introduction to Phlebotomy II</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 12
Real Estate

Workforce Instruction Division
(206) 934-3730

North Seattle’s Real Estate program prepares students for work in Residential and Commercial Real Estate Sales, Property Management, Green Real Estate, Escrow, Finance, and Investment through a series of independent short certificates and an AAS degree program. The program provides the skills and educational clock hours necessary to satisfy Washington State Department of Licensing and industry and continuing education requirements. Students learn from industry experts in settings emphasizing experiential learning.

Commercial Real Estate Certificate

North Seattle’s Real Estate program prepares students for work in Residential and Commercial Real Estate Sales, Appraising, Property Management, Green Real Estate, Escrow, Finance, and Investment through a series of independent short certificates and an AAS degree program. The program provides the skills and educational clock hours necessary to satisfy Washington State Department of Licensing and industry and continuing education requirements. Students learn from industry experts in settings emphasizing experiential learning.

TECHNICAL SPECIALTY COURSES

RES 141 Land Use Principles and Practice ............ 3
RES 217 Real Estate Development and Sustainability . 3
RES 260 Real Estate Finance-Commercial .............. 2
RES 290 Commercial Sales and Leasing .............. 3

Following can be substituted:
RES 110 Introduction to Commercial Real Estate .... 3
-OR-
RES 140 Real Estate Sales Practices ................. 3
RES 295 Commercial Real Estate Investment Analysis .2

ELECTIVES

Choose credits from the approved list below:
RES 101 Technology for Real Estate. .................. 5
RES 110 Introduction to Commercial Real Estate .... 3

Students are required to take this elective if they have NOT already completed an equivalent course or do NOT have a real estate license or have 2 years of commercial real estate experience. If course fulfills the above course requirement, then it cannot also count as an approved elective.

RES 140 Real Estate Sales and Practice ............. 3

Students are required to take this elective if they have NOT already completed an equivalent course or do NOT have a real estate license or have 2 years of commercial real estate experience. If course fulfills the above course requirement, then it cannot also count as an approved elective.

Electives required ........................................... 3
Choose at least 3 credits from approved list. See Advising Center.

TOTAL PROGRAM CREDITS 16-18

All of the above courses also apply toward the Real Estate Associate of Applied Science Degree and the Commercial Real Estate and Investment Certificate.

The Department of Licensing (DOL) of the State of Washington requires the successful completion of RES 100 and RES 140 before taking the real estate broker license exam. Also, DOL requires completion of RES 290 before the first license renewal.

For up to date information on Real Estate certificates, degrees and courses, visit www.northseattle.edu/real-estate.

Commercial Real Estate and Investment Certificate

TECHNICAL SPECIALTY COURSES

RES 110 Introduction to Commercial Real Estate .... 3

Following can be substituted:
RES 290 Commercial Sales and Leasing .......... 3
RES 290 fulfills WA DOL requirement for first real estate license renewal.

RES 125 Applications of Real Estate Math ............ 2
RES 141 Land Use Principles and Practice ......... 3
RES 170 Real Estate Law .................................. 3
RES 217 Real Estate Development and Sustainability .3
RES 220 Real Estate Economics ...................... 3
RES 260 Real Estate Finance-Commercial .......... 2
RES 295 Commercial Real Estate Investment Analysis .2

ELECTIVES

Choose 5 credits from approved electives listed below.
CWE 101 Portfolio, Job Search and Interviewing .... 2
CWE 110 Internship ..................................... 3
RES 100 Real Estate Fundamentals ................. 5

Students are required to take this elective if they have NOT already completed it or do NOT have a real estate license.
RES 101 Technology for Real Estate. ................. 5
RES 110 Introduction to Commercial Real Estate .... 3
If not taken as required course.
RES 120 Real Estate Principles of Maintenance and Repair .......... .................. 1.5
RES 130 Green Real Estate. ......................... 3
RES 140 Real Estate Sales and Practice .......... 3
RES 142 Inspecting the Condition of Real Estate .... 3
RES 150 Residential Sales and Leasing Documentation 1.5
RES 176 Using Tax-Deferred Exchanges to Your Advantage 1
RES 177 Real Estate Taxes ................................ 1.5
RES 178 Buyers Agency ................................. 1.5
RES 180 Basic Appraisal Principles .................. 3
RES 190 Real Estate Escrow I ........................... 3
RES 200 Seminar in Current Real Estate Issues .... 5
RES 201 Principles of Real Estate Management .... 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RES 202</td>
<td>Multi-Family Property Management</td>
<td>3</td>
</tr>
<tr>
<td>RES 203</td>
<td>Property Management-Commercial</td>
<td>3</td>
</tr>
<tr>
<td>RES 204</td>
<td>Community Association Management</td>
<td>3</td>
</tr>
<tr>
<td>RES 210</td>
<td>Residential Property Investments</td>
<td>3</td>
</tr>
<tr>
<td>RES 225</td>
<td>Current Trends in Real Estate Market Analysis</td>
<td>1.5</td>
</tr>
<tr>
<td>RES 230</td>
<td>Professional Business Practices of Brokerage Mgt</td>
<td>5</td>
</tr>
<tr>
<td>RES 235</td>
<td>Sales and Marketing</td>
<td>3</td>
</tr>
<tr>
<td>RES 280</td>
<td>Commercial Real Estate: Markets and Income</td>
<td>3</td>
</tr>
<tr>
<td>RES 290</td>
<td>Commercial Sales and Leasing</td>
<td>3</td>
</tr>
<tr>
<td>RES 298</td>
<td>Special Projects, Internships in Real Estate</td>
<td>6</td>
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<td>TOTAL PROGRAM CREDITS</td>
<td>26</td>
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</tbody>
</table>

**Green Real Estate Short-Term Certificate**

This certificate program provides a strong background in green and sustainable residential real estate. This certificate prepares students to specialize in green and sustainable real estate while working as brokers, builders, developers, home inspectors, architects, appraisers, and government staff.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RES 130</td>
<td>Green Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RES 131</td>
<td>Green Building Materials</td>
<td>2</td>
</tr>
<tr>
<td>RES 132</td>
<td>Marketing, Education and Ethics in Sustainable D</td>
<td>3</td>
</tr>
<tr>
<td>RES 133</td>
<td>Energy Efficient Design and Development</td>
<td>2</td>
</tr>
<tr>
<td>RES 134</td>
<td>Smart Locations Integrated Communities Sustainable</td>
<td>1.5</td>
</tr>
<tr>
<td>RES 135</td>
<td>Healthy Buildings and Indoor Air Quality</td>
<td>2</td>
</tr>
<tr>
<td>RES 217</td>
<td>Real Estate Development and Sustainability</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TOTAL PROGRAM CREDITS</td>
<td>16.5</td>
</tr>
</tbody>
</table>

**Real Estate Certificate**

This certificate program gives a strong basic background in real estate. The completion of six real estate courses entitles the student to a certificate in real estate issued by the Washington Department of Licensing and by North Seattle College.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RES 100</td>
<td>Real Estate Fundamentals</td>
<td>5</td>
</tr>
<tr>
<td>RES 101</td>
<td>Technology for Real Estate</td>
<td>5</td>
</tr>
<tr>
<td>RES 164</td>
<td>Real Estate Finance Residential</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Following can be substituted:</td>
<td></td>
</tr>
<tr>
<td>RES 260</td>
<td>Real Estate Finance - Commercial</td>
<td>2</td>
</tr>
<tr>
<td>RES 170</td>
<td>Real Estate Law</td>
<td>3</td>
</tr>
<tr>
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<td>TOTAL PROGRAM CREDITS</td>
<td>18</td>
</tr>
</tbody>
</table>

**ELECTIVES**

Real Estate course with RES prefix                        | 3       |

**TOTAL PROGRAM CREDITS**                                  | 18-21   |

For up to date information on Real Estate certificates, degrees and courses, visit www.northseattle.edu/real-estate.

**Real Estate**

**Associate of Applied Science Degree (A.A.S.)**

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RES 100</td>
<td>Real Estate Fundamentals</td>
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<tr>
<td>RES 101</td>
<td>Technology for Real Estate</td>
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</tr>
<tr>
<td>RES 106</td>
<td>Real Estate Fraud</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Following can be substituted:</td>
<td></td>
</tr>
<tr>
<td>RES 160</td>
<td>Ethics for Loan Originators</td>
<td>1</td>
</tr>
<tr>
<td>RES 110</td>
<td>Introduction to Commercial Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RES 125</td>
<td>Applications of Real Estate Math</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Following can be substituted:</td>
<td></td>
</tr>
<tr>
<td>RES 130</td>
<td>Green Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RES 140</td>
<td>Real Estate Sales and Practice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Following can be substituted:</td>
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</tr>
<tr>
<td>RES 290</td>
<td>Commercial Sales and Leasing</td>
<td>3</td>
</tr>
<tr>
<td>RES 141</td>
<td>Land Use Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>RES 142</td>
<td>Inspecting the Condition of Real Estate</td>
<td>3</td>
</tr>
<tr>
<td>RES 150</td>
<td>Residential Sales and Leasing Documentation</td>
<td>1.5</td>
</tr>
<tr>
<td>RES 165</td>
<td>Real Estate Loan Originiator</td>
<td>3</td>
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<tr>
<td></td>
<td>Following can be substituted:</td>
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<tr>
<td>RES 166</td>
<td>Real Estate Loan Processing</td>
<td>4</td>
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<tr>
<td>-OR-</td>
<td>RES 260 Real Estate Finance - Commercial</td>
<td>2</td>
</tr>
<tr>
<td>RES 170</td>
<td>Real Estate Law</td>
<td>3</td>
</tr>
<tr>
<td>RES 175</td>
<td>Introduction to Title</td>
<td>3</td>
</tr>
<tr>
<td>RES 177</td>
<td>Real Estate Taxes</td>
<td>1.5</td>
</tr>
<tr>
<td>RES 180</td>
<td>Basic Appraisal Principles</td>
<td>3</td>
</tr>
<tr>
<td>RES 190</td>
<td>Real Estate Escrow I</td>
<td>3</td>
</tr>
<tr>
<td>RES 201</td>
<td>Principles of Real Estate Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Following can be substituted:</td>
<td></td>
</tr>
<tr>
<td>RES 202</td>
<td>Multi-Family Property Management</td>
<td>3</td>
</tr>
<tr>
<td>-OR-</td>
<td>RES 203 Commercial Property Management</td>
<td>3</td>
</tr>
<tr>
<td>-OR-</td>
<td>RES 204 Community Property Management</td>
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</tr>
<tr>
<td>RES 210</td>
<td>Residential Property Investments</td>
<td>3</td>
</tr>
<tr>
<td>RES 217</td>
<td>Real Estate Development and Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>RES 220</td>
<td>Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>RES 235</td>
<td>Sales and Marketing</td>
<td>3</td>
</tr>
<tr>
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<td>TOTAL PROGRAM CREDITS</td>
<td>61</td>
</tr>
</tbody>
</table>
Professional/Technical Programs

SEATTLE COLLEGES ■ 2016-2018 CATALOG

150

Professional/Technical Programs

North Seattle College

Real Estate – Appraiser Trainee Certificate

REQUIRED COURSES

RES 100 Real Estate Fundamentals ..................... 5
RES 106 Real Estate Fraud ................................ 1
RES 125 Applications of Real Estate Math .............. 2
Students may challenge RES 125 by passing the RES 125 test
RES 180 Basic Appraisal Principles .................... 3
RES 183 Basic Appraisal Procedures .................... 3
RES 281 National USPAP Course ....................... 1.5

TOTAL PROGRAM CREDITS 20.5

For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.

Real Estate – Escrow Certificate

TECHNICAL SPECIALTY COURSES

RES 100 Real Estate Fundamentals ..................... 5
RES 106 Real Estate Fraud ................................ 1
RES 150 Residential Sales and Leasing Documentation 1.5
RES 170 Real Estate Law ................................... 3
RES 175 Introduction to Title ......................... 3
RES 190 Real Estate Escrow I ......................... 3

ELECTIVES

Total required RES Electives credits: 6
Choose credits from any course(s) with RES prefix, CWE 101 or CWE 110.
Visual, Literary and Performing Arts ..................... 5

TOTAL PROGRAM CREDITS 22.5

For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.

Real Estate – Loan Originator Certificate

The Real Estate Loan Originator Certificate prepares the student to become a loan originator, mortgage broker, bank officer and loan underwriter; and/or to better understand real estate finance, title, escrow, real estate law, real estate fraud and real estate documentation.

TECHNICAL SPECIALTY COURSES

RES 100 Real Estate Fundamentals ..................... 5
RES 106 Real Estate Fraud ................................ 1
RES 125 Applications of Real Estate Math .............. 2
Students may challenge RES 125 by passing the RES 125 test. Processing fees apply.
RES 164 Real Estate Finance Residential ............... 5
RES 180 Basic Appraisal Principles .................... 3

Following can be substituted:
RES 190 Real Estate Escrow I ......................... 3
RES 235 Sales and Marketing ......................... 3

TOTAL PROGRAM CREDITS 19

ELECTIVES

Choose credits from approved list. See Advising Center.

ELECTIVES CREDITS 6

For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.

Real Estate – Loan Processor Certificate

North Seattle’s Real Estate program prepares students for work in Residential and Commercial Real Estate Sales, Appraising, Property Management, Green Real Estate, Escrow, Finance, and Investment through a series of independent short certificates and an A.A.S. degree program. The program provides the skills and educational clock hours necessary to satisfy Washington State Department of Licensing and industry and continuing education requirements. Students learn from industry experts in settings emphasizing experiential learning.

TECHNICAL SPECIALTY COURSES

RES 100 Real Estate Fundamentals ..................... 5
RES 106 Real Estate Fraud ................................ 1
RES 160 Ethics for Loan Originators .................... 1
RES 166 Real Estate Loan Processing ................... 4
RES 175 Introduction to Title ......................... 3
RES 190 Real Estate Escrow I ......................... 3
RES 266 Real Estate Loan Underwriter ............... 3

TOTAL PROGRAM CREDITS 20

ELECTIVES

Choose credits from the approved list. See Advising Center.

ELECTIVES CREDITS 3

For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.

Note: Most employers require Loan Processors to be able to quickly learn and use industry-specific software.

For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.
Real Estate – Property Management Certificate

TECHNICAL SPECIALTY COURSES
RES 100 Real Estate Fundamentals ..................... 5
RES 101 Technology for Real Estate ..................... 5
RES 120 Real Estate Principles of Maintenance and Repair ............................................. 1.5
RES 140 Real Estate Sales and Practice ................ 3
RES 170 Real Estate Law .................................. 3
RES 201 Principles of Real Estate Management ...... 3
Choose two of these 4 classes for total of 6 credits.
RES 202 Residential Property Management ........ 3
-OR-
RES 203 Commercial Property Management .......... 3
-OR-
RES 204 Community Association Management ...... 3
RES 220 Real Estate Economics .......................... 3

TOTAL PROGRAM CREDITS 26.5

Note: Most employers require Property Managers to be a licensed real estate sales associate in the State of Washington and to be able to quickly learn and use industry-specific software.
For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.

Real Estate – Sales Certificate

TECHNICAL SPECIALTY COURSES
RES 100 Real Estate Fundamentals ..................... 5
RES 101 Technology for Real Estate ..................... 5
RES 106 Real Estate Fraud ................................. 1
RES 125 Applications of Real Estate Math ............. 2
Students may challenge RES 125 by passing the RES 125 test.
RES 140 Real Estate Sales and Practice ............... 3
Following can be substituted:
RES 290 Commercial Sales and Leasing ............. 3
RES 142 Inspecting the Condition of Real Estate ...... 3
Following can be substituted:
RES 175 Introduction to Title ............................. 3
-OR-
RES 180 Basic Appraisal Principles .................... 3
-OR-
RES 190 Real Estate Escrow I ............................. 3
RES 150 Residential Sales and Leasing Documentation ..................................................... 1.5
RES 165 Real Estate Loan Originator .................... 3
Following can be substituted:
RES 166 Real Estate Loan Processing .................. 4
-OR-
RES 260 Real Estate Finance - Commercial ........... 2
RES 170 Real Estate Law ................................. 3

TOTAL PROGRAM CREDITS 25.5-27.5

State of Washington, Department of Licensing (DOL), requires successful completion of RES 100 before taking the State Real Estate Sales License Exam. Also, DOL requires completion of RES 140 or RES 290 before the first license renewal.
For up to date information on Real Estate certificates, degrees and courses, visit northseattle.edu/real-estate.
Watch Technology Institute

Workforce Instruction Division
(206) 934-0169

The Watch Technology Institute (WTI) teaches watch making, watch repair, theory and practical applications. Rolex Watch USA, Inc. partnered with North to create a state-of-the-art facility for North's long-established watchmaking program, the only one on the West Coast. Faculty members have industry experience and are industry certified trainers. After the successful completion of the program, students will qualify to take the Swiss American Watchmaking Training Alliance (SAWTA) exam for certification.

The SAWTA curriculum is supported by Rolex Watch USA, Inc. to encourage the training of watchmakers in the U.S. The Watch Technology program has limited seats available. Contact the WTI office for more information.

Certificate

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIN</td>
<td>Introduction to Watch Technology</td>
<td>6</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Technology I: Tools, Equipment &amp; Measurement</td>
<td>6</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Technology I: Practicum</td>
<td>10</td>
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<tr>
<td>HIN</td>
<td>Watch Technology II: Professional Knowledge</td>
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<tr>
<td>HIN</td>
<td>Watch Technology II: the Watchmakers Lathe</td>
<td>6</td>
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<tr>
<td>HIN</td>
<td>Watch Technology II: Practicum</td>
<td>10</td>
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<tr>
<td>HIN</td>
<td>Watch Technology III: Winding and Setting Mechan</td>
<td>6</td>
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<tr>
<td>HIN</td>
<td>Watch Technology III: Watch Gear Trains</td>
<td>6</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Technology III: Practicum</td>
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<td>HIN</td>
<td>Watch Technology IV: Escapements</td>
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<tr>
<td>HIN</td>
<td>Watch Technology IV: External Parts</td>
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<td>HIN</td>
<td>Watch Technology IV: Practicum</td>
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</tr>
<tr>
<td>HIN</td>
<td>Watch Tech V: Introduction to Precision Timing</td>
<td>6</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Tech V: Introduction to Electronic Watches</td>
<td>6</td>
</tr>
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<td>HIN</td>
<td>Watch Tech V: Practicum</td>
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<tr>
<td>HIN</td>
<td>Watch Technology VI: Precision Timing 2</td>
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</tr>
<tr>
<td>HIN</td>
<td>Watch Technology VI: Automatic Watches</td>
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<td>HIN</td>
<td>Watch Technology VI: Practicum</td>
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<tr>
<td>HIN</td>
<td>Watch Technology VII: Advanced Precision Timing</td>
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<tr>
<td>HIN</td>
<td>Watch Technology VII: Chronographs</td>
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<tr>
<td>HIN</td>
<td>Watch Technology VII: Practicum</td>
<td>8</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Technology VIII: After-Sales Service</td>
<td>4</td>
</tr>
<tr>
<td>HIN</td>
<td>Watch Technology VIII: Review of Courses</td>
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</tr>
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</table>

TECHNICAL SPECIALTY CREDITS: 164

GENERAL EDUCATION COURSES

Total required General Education credits: 20

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS</td>
<td>Interpersonal Communications for the Workplace</td>
<td>5</td>
</tr>
<tr>
<td>ENGL</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>MATH</td>
<td>Math in Society</td>
<td>5</td>
</tr>
<tr>
<td>U.S.</td>
<td>U.S. Cultures</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:

Other Approved Human Relations Course

GENERAL EDUCATION CREDITS: 20

TOTAL PROGRAM CREDITS: 184
Welcome to South Seattle College. South has educational opportunities to meet a wide variety of interests and needs, whether on the main campus in West Seattle, through online courses, or at one of the satellite campuses. Real-world experience is emphasized through team-learning projects and portfolio development, or internships and classes that engage students in the learning process.

The main campus is located on 87 wooded acres in West Seattle, overlooking downtown Seattle and Elliott Bay. The six-acre college arboretum is adjacent to the site of the developing Seattle Chinese Garden.

Students are offered a wide variety of educational opportunities, from certificates to Associate of Arts Degrees and even Bachelor’s Degrees. In addition to offering classes towards a Bachelor’s Degree through our on-campus University partners, South offers three Bachelor of Applied Science degrees in Hospitality Management, Professional Technical Teacher Education, and Sustainable Building Science Technology.

South takes pride in celebrating a diverse campus that includes a wide mix of students from regions all over the globe. As a campus, South’s faculty and staff are committed to student success and to helping students turn their academic dreams into reality. Start here, go anywhere!

Getting Started at South

Admissions (206) 934-7943
Financial Aid (206) 934-5317
Registration (206) 934-7938
TDD (206) 934-5845
southseattle.edu

Mission

South Seattle College is a constantly evolving educational community dedicated to providing quality learning experiences which prepare students to meet their goals for life and work. The college values and promotes a close involvement with the community and strong partnerships with business, labor and industry.

The college commits to meeting the diverse needs of students by providing:

- Applied baccalaureate, associate degree, college transfer, certificate, technical and professional, and pre-college programs which prepare students to succeed in their careers and further their education.
- Responsive technical and professional training programs developed in collaboration with business, labor, and industry.
- Student-centered and community-centered programs and services which value diversity, support learning, and promote student success.
- Lifelong learning opportunities for the cultural, social, professional and personal development of the members of our communities.

Core Themes

- Student Achievement
- Teaching and Learning
- College Culture and Climate
- Community Engagement and Partnerships
Specialized Training Centers
Georgetown Campus of South Seattle College

Apprenticeship & Education Center
Washington State Labor, Education and Research Center
6737 Corson Avenue South
(206) 934-5350
georgetown.southseattle.edu/

South Seattle College’s Georgetown Campus is a leader in green and sustainability education, offering courses in residential energy auditing, weatherization, and specialized contract training. Located on the Georgetown Campus is South’s Apprenticeship & Education Center, one of the largest facilities of its type on the west coast, serving apprentices and journey-level workers in more than 30 trades. Georgetown also houses Corporate & Customized Training, which provide a wide variety of training and services for the industrial business community.

The Washington State Labor, Education and Research Center at Georgetown offers workshops and training for unions and other organizations concerned with economic justice.

The Georgetown Campus received a 2008 Governor’s Economic and Workforce Development Award and a 2009 Vision 2020 Award from the Puget Sound Regional Council. In 2013, the Manufacturing Academy won the National Council for Workforce Education’s Outstanding Program Award.

NewHolly Learning Center

7058 32nd Avenue S.
2nd floor of the Learners Building
Seattle, WA 98118
(206) 934-6642
southseattle.edu/programs/holly.htm

NewHolly is a community whose mission is to foster the success of youth, adults and families. In implementing this mission, South Seattle College, along with community partners, values and promotes services that build on strengths, diversity and multiculturalism, public-private collaboration, an open and engaged community, and a commitment to innovation. South Seattle College offers English as a Second Language (ESL) and a Corrections Training program at NewHolly.

Harbor Island Training Center

1731 13th Avenue SW
Seattle, WA 98134
southseattle.edu/harbor-island-training-center/

South Seattle College and Vigor have formed the Harbor Island Training Center, a public/private partnership located onsite at Vigor on Harbor Island. A college in a shipyard, South Seattle offers an intensive maritime welding program to train welders with the necessary certifications needed for the regional shipbuilding and repair community.

Facts at a Glance*

2015–2016 ANNUAL PROFILES
Annual attendance 2015–2016 14,922

Special Enrollments
Distance Education 6,883
Running Start 332
International Students 959
Worker Retraining 553

FALL 2016 PROFILES
Students **
Median age 28
Ethnic diversity 51%
Male/Female 65%/35%
With bachelor or higher degrees 14%
Employed 64%
full time 46%
With dependents 33%
single parents 9%
Full-time/Part-time attendance 34%/66%

Programs
College Transfer 20%
Workforce Education 47%
Basic Skills 9%
Pre-college & Other 24%

Course Funding Sources
State-funded 74%
Contract-supported 11%
Student-supported 15%

* Source: State Board for Community and Technical Colleges Data Warehouse and Seattle College District’s Database.
** State-funded
Academic & Student Support Services

Advising Center
(206) 934-5387
southseattle.edu/advising

The Advising Center assists students to define and meet their educational goals while providing effective referrals to other support services. Services provided by advisors include: academic advising and educational planning, College Transfer degree information, Professional/Technical degree information, assistance with petitions for waivers and/or exceptions, assistance with academic difficulty, transfer planning, monitoring degree progress, and graduation applications. Advisors serve new students and students enrolled in college transfer, professional/technical, High School Diploma (ages 21+), General Education Development (GED®), English as a Second Language (ESL), and undecided students.

Counseling Services
(206) 934-5387
southseattle.edu/counseling

Counselors are faculty members who help students and prospective students establish and achieve educational, career and personal goals based on a comprehensive assessment of their personalities, interests, skills, values, and other resources. South Seattle College has three full-time counselors who hold master's degrees in counseling.

Career Services

WorkSource Affiliate and Connection Sites
(WorkSource Affiliate Main Campus: (206) 934-5304
WorkSource Connection Site: (206) 934-5359
http://www.southseattle.edu/worksourc/
Student & Alum Job Board: http://seattlecolleges.edu/careerhub/

The WorkSource/Career Services Centers offer a full spectrum of employment services to students, alums, and community members using an innovative “Embedded Career Services” approach that partners with faculty to help students obtain employment upon program completion.

The WorkSource/Career Services Centers have self-service labs with multiple computers, career exploration tools and knowledgeable staff to assist in navigating the Internet to apply for positions and research employers.

Individuals may schedule 1:1 appointments with Embedded Career Specialists or WIOA staff members and participate in workshops focused on creating a resume and interviewing successfully.

Class Schedule – Quarterly
(206) 934-5300
classes.southseattle.edu

Each college produces a quarterly Class Schedule listing the specific courses being offered that quarter. This schedule is available online approximately six weeks before the start of each quarter. View or download the online class schedule at the website above.

Cultural Center
(206) 934-7969
southseattle.edu/cultural-center/

The Cultural Center empowers student leaders to explore, celebrate, and educate the campus community about the diversity among us. We offer an inclusive and reflective space, multicultural programming, and support services that encourage positive interaction, academic persistence, and growth among students, faculty, and staff.

Disability Support Services

Educational Support Services
(206) 934-5137 (voice)
TTY 1-800-833-6384 or 711 for Washington State relay service
southseattle.edu/disability-support/

Disability Support Services (DSS) coordinates services and arranges academic adjustments for students with disabilities at South Seattle College. The DSS Office provides accommodations to ensure physical and programmatic access to college services, programs, and activities.

To receive services, students complete an intake appointment in the DSS office and provide documentation of disability. Individualized academic adjustments will then be determined. Please note some services may require six weeks or more to arrange. Contact the DSS office as early as possible in your educational planning to avoid delays in service.

This office also offers consultation and resources to faculty in providing academic adjustments to meet the needs of students with disabilities. Assistive technology is also available for student use on campus.

Please see page 45 for specific details and additional information on eligibility and policies.
Information Technology Services (ITS)

(206) 934-5844

The college provides a high-speed network linking Windows-based workstations to the Internet via a fiber-optic system. At our main campus we have 27 instructional computer/lab classrooms and three Open Labs. Our remote sites, Georgetown and New Holly, have two computer classrooms at each site. Each machine is equipped with a large variety of production software available for student use. Open Computer Labs are available for use by any student who pays the computer lab fee. A quarterly lab fee is charged at registration and students must have a valid Student I.D. number in order to log on to computers on campus.

International Programs

The Center for International Education

(206) 934-5360
e-mail: ip@seattlecolleges.edu
southseattle.edu/international/

This office supports the development of global citizenship through programs and services that support international students studying at South, and South students studying abroad. Key functions of the office include International student admissions and comprehensive support services, oversight of the Intensive English Program, and the development of resources and programming for faculty, staff and student exchanges.

See page 27 for additional information.

Multicultural

Office of Diversity & Retention

(206) 934-6455
southseattle.edu/diversity-and-retention/

The Diversity & Retention Department includes an Office of Diversity & Retention, President's Committee on Diversity and Retention, a Cultural Center, Veterans Student Center, and the Women's Center. Diversity & Retention is a network of departments working together to foster an inclusive campus community by providing education about diversity, social justice, gender equity, and multiculturalism. We advocate for the persistence and success of student, faculty and staff of color and underrepresented groups through academics, leadership opportunities, support services, programming and college-wide initiatives.

Opportunity Grant Scholarship

(206) 934-5200
southseattle.edu/resources/opportunitygrant.htm

The goal of the Opportunity Grant Scholarship (OGS) is to assist low-income adults to reach the educational tipping point and beyond in high-wage, high-demand professional technical careers by providing financial and student support services. Reaching the tipping point allows students to complete 45 credits, receive a credential, and increase job skills and knowledge through career pathways. Students are encouraged to visit the OGS website for further information and for the application form.

Library

(206) 934-5395
libguides.southseattle.edu/home/

The library supports the college's mission by providing students, faculty, staff and the community with the services, information, resources, and equipment necessary to accomplish the college's academic and institutional goals. The library acquires and maintains relevant collections in a variety of formats and offers services to promote their use and foster information literacy skills in patrons.

The library also plays an active role in the instructional program by offering course-related library instruction, and by consulting with faculty about collection development and services. Goals include service excellence through timely, competent and cheerful service; a comfortable physical environment; and responsiveness to the changing needs of patrons.

The library collection includes over 60,000 print books, reference volumes and periodicals, as well as more than two dozen databases with access to thousands of periodicals, books and other sources.

Student Assessment Services

(206) 934.6765
southseattle.edu/sas/placement.htm

Student Assessment Services, as part of its assessment functions, administers placement tests, GED examinations and various other instruments for students and our community. See the college website for the assessment calendar, links to practice sites, information about the tests and more. Location: Room 76, Robert Smith Building.
Student Success Programs

AANAPISI
Asian American Native American Pacific Islander Serving Institution Program
(206) 934-5196
southseattle.edu/programs/aanapisi.htm
South is one of the first institutions to be designated as an Asian American Native American Pacific Islander Serving Institution (AANAPISI).
The AANAPISI Center, located on the second floor of the Library, Room 220, is a great place to study, and to receive services, including:
- academic advising
- professional development on understanding and working with AAPI students
- deferrals to appropriate campus and community services
- support from AAPI student groups such as the Pacific Islander student club
- study groups
- tutoring services

TRiO – Student Success Services
(206) 934-5326
southseattle.edu/trio
Student Success Services promotes student retention by providing students with resources that help them to progress in college, graduate and transfer to four-year universities. Key features include:
- educating students about how the college system works and how to improve their academic performance and problem-solving skills
- creating a welcoming environment where students feel a sense of belonging in the college setting
- adapting college educational policies and services in response to wide-ranging and changing student development needs
The program’s primary components are CLIC (Collaborative Learning and Instruction Center), transfer and scholarship assistance, and information regarding financial aid, economic literacy, and referrals to resources.
Student Success Services is funded through the U.S. Department of Education’s Title IV TRiO grants. The program works with first-generation college students, low-income students, and physically and/or learning-disabled students, as outlined in the Department of Education guidelines. Students are encouraged to participate in the program throughout their attendance at South until they graduate or transfer.

Transfer Resources
(206) 934-5387
Transfer Resources are available to all students wanting to transfer to a four-year college or university to earn a Bachelor’s degree. Students are guided through the transfer process as they learn about admission guidelines, preparing for their major, writing personal statements, and other important topics. Transfer events, workshops, and fairs are hosted on campus throughout the academic year to connect students directly to representatives from the four-year schools.

Tutoring Services

Tutoring Center
(206) 934-6650
southseattle.edu/tutoring/tutor-center.aspx
The South Seattle College Tutoring Center recognizes the complex needs of our diverse student population in academic and vocational programs. We support student success by providing a variety of free tutoring services that includes drop-in centers, small group tutoring, and online tutoring to ensure that students receive the help they need in order to complete their educational goals. Students should contact the Tutoring Center for more information and schedules.

MAST: the Math and Science tutoring Center
(206) 934-6650
southseattle.edu/tutoring/mast.aspx
Drop-in help is available for all levels of math and science in Room 18, Robert Smith Building. Tutors are available to help students solve problems and improve their math, chemistry, physics and statistics. Students can earn credit while working in MAST by signing up for MAT 089, MAT 090, or MAT 198.

The MALL: Math and Learning Lab
(206) 934-6650
southseattle.edu/tutoring/mall.aspx
Drop-in help is available in Library Room 215 for students enrolled in developmental math classes. Emphasis is placed on learning good study skills along with individual help in problem solving.

GEEK HAUZ: Computer Learning Center
(206) 934-6650
southseattle.edu/tutoring/geek-hauz.aspx
Drop-in tutoring assistance is available for students enrolled in computer technology courses and students who need help troubleshooting their computer problems. Schedules may vary based on student need.
Writing Center
(206) 934-6412
southseattle.edu/tutoring/writing-center.aspx
The Writing Center in Library room 205 assists students with their writing assignments and promotes writing across the curriculum. Students work with trained peer writing assistants who help them explore and develop ideas, clarify their thoughts and produce a polished, finished product. User-friendly word processing programs are available for student use.

Writing and Language Lab (The WALL)
(206) 934-6650
southseattle.edu/tutoring/wall.aspx
The Writing and Language Lab (The WALL) in Room 16, Robert Smith Building, assists students with their writing assignments and oral presentations and study skills. Students work with faculty or tutors and in study groups in a lab setting. The WALL is particularly designed for students who do not speak English as their first language and for students in the Adult Basic Education program. However, all students enrolled at South are welcome.

Online Tutoring
(206) 934-6650
southseattle.edu/tutoring/online.aspx
South Seattle College is a member of the Northwest E-Tutoring Consortium and offers free online tutoring in all subject areas. Students who can’t meet with tutors during our normal operating hours are invited to explore E-tutoring service. Anyone registered at South may use this service to receive online tutoring in writing, math, accounting biology, and numerous other academic subjects.

BUS/ACCT: Business & Accounting Center
(206) 934-6650
southseattle.edu/tutoring/
Drop-in help is available in OLY 205 for students enrolled in business and accounting classes.

Veterans Affairs
(206) 934-5811
southseattle.edu/veterans/
The Veterans Affairs Office at South Seattle serves as a liaison between military veterans, dependents, reservists/guardsmen and disabled veterans (military service-connected disabilities) and the Department of Veterans Affairs. The office also approves state tuition waivers for eligible veterans and their dependents and is the primary contact for assistance with completing the necessary paperwork required to obtain veteran educational benefits and for guidance on VA regulations regarding educational benefits.

See page 33 for further veterans’ assistance and financial aid information.

Women’s Center
(206) 934-6801
southseattle.edu/womens-center/
The Women’s Center is dedicated to supporting the academic, personal, and professional success of women in the campus community by providing resource referrals, educational programs and opportunities that address gender equity and women’s issues and concerns in a friendly supportive environment for individuals of all gender identities. Visit Room 148, Brockey Student Center.

WorkForce/BFET Programs
(206) 934-5835 or (206) 934-6666
southseattle.edu/programs/workretr.htm
WorkForce offers short-term and long-term training in technical education programs such as health care, transportation, information technology, manufacturing technology and more. Temporary Assistance to Needy Families/TANF recipients, low-income adults and Basic Food & Employment Training (BFET) recipients receive tuition assistance for job skills training, GED/ABE and technical education.

Also see Career Development/WorkSource Affiliate on page 155 and Worker Retraining, page 29.
Student Life

Art Gallery
(206) 934-5337
southseattle.edu/art-gallery
The mission of the art gallery is to promote understanding and the appreciation of the arts within the South Seattle College campus and in the surrounding communities. The art gallery mounts exhibitions that contribute to education and cultural enrichment while engaging the college community in learning opportunities and supporting cultural and artistic diversity.

Bookstore
(206) 934-5338
southseattle.edu/art-gallery
The Bookstore carries new, used, rental, and digital textbooks, as well as school supplies, clothing, gifts, food, beverages, and greeting cards. Textbooks and other supplies may be purchased online for store pick up or direct shipping. The Bookstore also offers cash for books. The best time to sell is finals week of each quarter.

Childcare Center
(206) 934-5348
southseattle.edu/childcare
The Childcare Center is state-certified and provides quality care for children of South Seattle College students, employees and the community. Since 1976 the program has offered a convenient on-campus location with a family-oriented atmosphere, parent education opportunities, flexible scheduling, and a curriculum that stimulates and challenges toddler and preschool-aged children while providing them with an opportunity to gain socialization skills. Staff trained in early childhood development create a welcoming and supportive environment. Contact the Childcare Center for specific information regarding enrollment, fees, and hours.

Copy Center
(206) 934-6662
southseattle.edu/copy-center
The Copy Center is located in the Library. Printing is done by Copy Center staff, or on a self-service copier. Various sizes and colors of paper, including résumé quality, are available. The Copy Center also creates transparencies for classroom presentations.

Food Services
(206) 934-5344
A variety of meal and snack selections is available in the campus Cafeteria, Deli and Grill, ranging from complete hot meals or quick food items to custom-made sandwiches, beverages, snacks and takeout items. Both breakfast and lunch items are available.
In addition, the Culinary Arts and Baking and Pastry Arts students prepare and serve award-winning cuisine in two dining rooms, also located in the Food Science Building. The Café Alki offers cold starter plates, soups, sandwiches and a selection of moderately priced hot food entrees. The Alhadeff Grill, with more upscale dining, offers a full menu. The dining rooms are open for lunch weekdays during the instructional quarter. Reservations are encouraged.
Bernie’s Pastry Shop, located in Cascade Court, is a retail outlet featuring baked goods prepared by students during the instructional quarter, as well as soup, sandwiches, coffee, espresso, cold beverages, and more.

Housing
(206) 934-5332
southseattle.edu/art-gallery
On-campus housing is not available. However, a bulletin board located in the Jerry Brockey Student Center lists various accommodations available in the local area. Check out the bulletin board for housing needs, or phone with room or apartment rental availability. Flyers can be posted in the Brockey Student Center, Room 135.

Recreation & Intramurals
(206) 934-6670
southseattle.edu/student-life/campus-recreation/
Campus Recreation at South includes the Games Room, Fitness Center, and Outdoor Sports Court facilities, recreational activities and intramural sports. The staff, through facilities and services, provides health, wellness, nutritional, and personal growth programs that complement overall learning outcomes and promote student retention and success.
The Games Room offers gaming systems, billiards tables, Table Tennis, and board games, and sports equipment for check out with a student ID.
Campus Recreation also offers excursions to professional sports games, hiking, kayaking and team sports on a clubs/intramurals level. Recreational Clubs and Sports clubs can be formed through our campus recreation department. Contact the recreation coordinator or visit the Game-Room Office in the Brockey Student Center, Room 152.
Fitness Center
(206) 934-6471
southseattle.edu/student-life/campus-recreation/
fitness-center.aspx
The Fitness Center provides the campus community with an opportunity to promote a healthy lifestyle at this weightlifting and training facility. Cardio equipment such as treadmills, ellipticals, stepmill, arc trainer, bikes and rowing machines, and resistance equipment such as cable weight machines and free weights are available, as well as lockers and showers. Student ID is required. The Fitness Center is located in the Multi-Purpose Building/Fitness Center. Check the website for updated hours.

Services and Activities Fee Board
S&A Fees are quarterly fees that some students pay as part of their tuition/registration fees. The purpose of the S&A Fee Board is to monitor S&A fee allocated funds and departmental expenditures throughout the academic year, allocate S&A fee monies on an annual basis, develop and maintain long-term fiscal plans for S&A fee carry forward/savings, and develop guidelines and address issues related to S&A fees. The S&A Fee Board is made up of five students: one from student government, one from student clubs, and three students at large (Chair, Treasurer and Communications Director) who meet weekly in the Student Life Office.

Safety
(206) 934-5157
Student well-being and safety are of utmost importance. It is vital that students follow strict safety procedures with equipment in all classes, especially technical-vocational classes. In the event of an on-campus accident or injury, the incident should be reported to the Security Office so an accident report can be completed. Students should immediately call 911 for serious injuries. Instructors must be notified if the accident occurs during class.

For further information on personal safety, see page 42.

Student Clubs
(206) 934-5330
By getting involved in clubs, students participate in team-building exercises, participate in the campus community and strengthen their organizational and leadership skills. Students also have the opportunity to organize new student clubs at South. For more information and a list of current student clubs, please contact the club center coordinator or visit the Student Life Office in Brockey Center.

Student Leadership
Develop personal and leadership skills while attending college. Student Life provides monthly workshops, funding to attend local and regional student conferences, and opportunities to advocate for student interests by serving on campus-wide committees. Contact the United Student Association advisor for more information.

Student Leadership Development Transcript
Document your extracurricular involvement at South by signing up for the Student Leadership Development Transcript. Include this document in your university admissions packets, scholarship, and job applications. For more information, contact the United Student Association advisor.

Student Insurance
For brochures on student insurance, stop by the Cashier’s Office in RS41 or call (206) 934-5388.

Student Life Office
(206) 934-5332
studentlife.southseattle.edu/index.html
The Office of Student Life in Room 135 of the Brockey Student Center oversees several areas in order to support and assist students in making their experience at South Seattle a successful one, including Phi Theta Kappa Honor Society; student activities; lost & found; student clubs; United Student Association (USA); student development transcript; and a student lounge with free coffee and tea.

Student Government
(206) 934-6751
The United Student Association (USA) is the official governing body for students at South. Student officers are elected each spring to represent student interests. The USA meets weekly. For more information about how to get involved and/or how to become a paid student representative, contact the USA president or vice president. Office mailboxes are located in the Student Life office, Room 119.
Transportation & Parking
Transportation Coordinator
Room 62A, Robert Smith Building
southseattle.edu/services/parking.aspx

Bus Service
(206) 553-3000 (Metro Rider Information)
Due to space limitations and environmental concerns, carpooling and bus transportation are strongly encouraged. Students registered for 10 or more credits are eligible to purchase a discounted ORCA transit pass issued by the college at the Cashier’s Office. The ORCA pass may be used to ride Community, Everett, Kitsap, Metro, Pierce and Sound Transit. For inquiries about other transportation options and benefits, contact the campus Transportation Coordinator.

Parking Services
(206) 934-5157
Parking on campus is available to registered students with the purchase of a student parking permit. Permits are available for purchase 30 days prior to the start of the quarter at seattlecolleges.edu/ParkingPermit.
Carpool parking is also available. Please see the Security and Transportation office for details. Parking rules and Washington State motor vehicle laws are enforced. The campus speed limit is 15 mph. Daily parking is available for purchase at the Cashier’s Office or at a parking permit machine located near the parking lots.

Veterans Student Center
(206) 934-5308
southseattle.edu/veterans-student-center/
The Veterans Student Center in Cascade Court 120 is committed to ensuring that military, veterans and their families successfully make the transition from the military environment to campus life, and are assisted in their progress toward the completion of their educational goals. The Veterans Student Center provides services and activities and coordinates with other campus departments such as Academic Advising and Counseling, Educational Support Services, and Veteran Affairs.

South Seattle College Foundation
(206) 934-5809
southseattle.edu/foundation/foumain.htm
The South Seattle College Foundation, a non-profit 501 (c)(3), tax-exempt organization, promotes and supports educational programs and training pursuits. Since its inception in 1981, the South Foundation has received more than $10 million in contributions from individuals, clubs and organizations, corporations and foundations.
The South Foundation serves an increasingly important role in supporting college programs and students. Foundation scholarships, which provide pre-paid tuition, are awarded three times each year. Interested students should contact the Foundation Office for an application.
General Education Definition and Rationale

See page 4.

General Education Learning Outcomes

Student Learning Outcomes are also known as General Education Requirements. These are the knowledge and abilities every student should have upon graduating with a certificate or degree from South Seattle College. While each academic or technical program has its own specific outcomes, these outcomes are the core curriculum for the college.

Communication

- Read and listen actively to learn and communicate
- Speak and write effectively for personal, academic and career purposes

Computation

- Use arithmetic and other basic mathematical operations as required by program of study
- Apply quantitative skills for personal, academic and career purposes

Human Relations

- Use social skills to work in groups effectively
- Have knowledge of the diverse cultures represented in our multicultural society

Critical Thinking & Problem-Solving

- Think critically in evaluating information, solving problems and making decisions

Technology

- Select and use appropriate technological tools for personal, academic and career tasks

Personal Responsibility

- Uphold the highest standards of academic honesty and integrity
- Respect the rights of others in the classroom, online, and in all other school activities.
- Attend class regularly, complete assignments on time, and effectively participate in classroom and online discussions, group work, and other class-related projects and activities.
- Abide by appropriate safety rules in laboratories, shops, and classrooms

Information Literacy

- Have knowledge about legal and ethical issues related to the use of information
- Use information effectively and ethically for a specific purpose.

Associate of Science Degree Learning Outcomes

Students who successfully complete this program will show:

- An ability to apply knowledge of mathematics and science to complex problems
- An ability to design and conduct experiments, as well as to analyze and interpret data
- An ability to think critically in evaluating information, solving problems and making decisions
- An ability to function on diverse, multi-disciplinary teams
- An ability to access and evaluate information from a variety of sources including the Internet
- An understanding of professional and ethical responsibility
- An ability to communicate effectively with written, oral, and visual means
- The broad education necessary to understand the impact of scientific and engineering solutions in a global and societal context
- A recognition of the need for and an ability to engage in lifelong learning
- An ability to use modern scientific and engineering techniques, skills, and technology necessary for scientific and engineering practice
9 Directions for Your Education and Training

1. College Transfer
2. Professional/Technical Programs
3. Bachelor's Degrees
4. Continuing & Contract Education
5. Bridge to College/Pre-College
6. eLearning /Distance Education
7. International Programs
8. Worker Retraining Program
9. Georgetown Campus

Academic Programs
(206) 934-6600

South Seattle College offers the Associate of Arts (A.A.) degree to meet the general education requirements for four-year baccalaureate degrees in arts and sciences. In addition to the general A.A. degree, the College offers an A.A. option in Asian and Pacific Islander Studies, an Associate in Business (A.B.) - Direct Transfer Agreement/Major-Ready Program (DTA/MRP). The College also offers an Associate of Science (A.S.) transfer degree, with several major-specific pathways (or “tracks”) which include Biology, Chemistry, Computer Science, Physics, and various Engineering specialties. Students should contact an advisor for details.

Students are encouraged to attain an Associate of Arts or Associate of Science transfer degree at South in order to ease transfer to a four-year institution, but students may also take individual classes for transfer. Students should confer with an academic advisor to ensure course transferability to their target four-year institution.

Students may be required to complete work in the college preparatory program if their records and test scores indicate a need for additional preparation in order to complete a degree program. College preparatory courses are not credited toward transfer degree requirements. College transfer courses at South Seattle College are offered in several disciplines, including the following:

- Accounting
- Anthropology
- Art
- Astronomy
- Biology
- Business
- Chemistry
- Communication
- Computer Science
- Drama
- Economics
- English
- Engineering
- Environmental Science
- General/Biological Science
- Geology
- Health
- History
- Humanities
- Mathematics
- Music
- Nutrition
- Philosophy
- Physics
- Political Science
- Psychology
- Sociology
- World Languages

See pages 7-9 for college transfer course requirements for A.A. or A.S. degree.

Associate of Arts Degree (A.A.)
Direct Transfer Agreement

The Associate of Arts (A.A.) degree is a 90-credit transfer degree that fulfills the general education requirements for most four-year degrees in arts and sciences. To earn the A.A. degree, students must achieve a cumulative grade point average of 2.0 or better in courses numbered 100 and above, complete at least 15 credits at the Seattle College awarding the degree, and meet the requirements outlined below.

Students should contact college advising offices for listings of courses that satisfy degree requirements. Students planning to transfer to a four-year institution should be aware that they must complete all admission requirements for their destination institution. In addition, students are encouraged to give early consideration to possible majors and obtain information about requirements for these majors at their destination college or university.
BASIC REQUIREMENTS

Total Basic Requirements of 15 credits is comprised of 10 credits from the courses listed below and 5 credits from Quantitative/Symbolic Reasoning section that follows

ENGL& 101  English Composition  .................. 5
ENGL& 102  Composition II  ....................... 5

BASIC REQUIREMENTS CREDITS 15

BASIC REQUIREMENTS - QUANTITATIVE/SYMBOLIC REASONING

Students completing the QSR requirement will be able to use quantitative or symbolic reasoning to understand, analyze, interpret and solve problems. Successful completion of any of the following classes satisfies the QSR requirement for Seattle Colleges. These courses may also satisfy the QSR requirement at baccalaureate institutions. Students should check the requirements of their destination institution.

Select 5 credits from the courses listed below:

MATH& 107  Math in Society  ....................... 5
MATH 116  Q Applications of Math to Management Life & SSCI  ....................... 5
MATH& 131 Math for Elementary Education 1  ........................ 5
MATH& 132 Math for Elementary Education 2  ........................ 5
MATH 120, &131 and &132 do not meet the QSR requirement at University of Washington.

MATH 136  Inferential Statistics  ....................... 5
MATH& 141  Precalculus I  ........................ 5
MATH& 142  Precalculus II  ........................ 5
MATH& 146  Introduction to Statistics  ........................ 5
MATH& 148  Business Calculus  ........................ 5
MATH& 151  Calculus I  ........................ 5
MATH& 152  Calculus II  ........................ 5
MATH& 163  Calculus 3  ........................ 5
MATH 220  Q · Linear Algebra  ........................ 5
MATH 224  Q · Vector Calculus  ........................ 5
MATH 238  Q · Differential Equations  ........................ 5
PHIL& 120  Symbolic Logic  ........................ 5

QUANTITATIVE/SYMBOLIC REASONING CREDITS 5

- A maximum of 15 credits from a combination of the following:
  - Workforce Education Professional Technical courses numbered 100 and above
  - Human Development courses (HDC) numbered 100 and above (6-credit maximum)
  - Library research courses (6-credit maximum)
  - Cooperative Work Experience (CWE) courses numbered 100 and above (5-credit maximum)

ELECTIVES PROGRAM CREDITS 30

AREAS OF KNOWLEDGE DISTRIBUTION

Visual, Literary and Performing Arts ................................. 15
  Choices must include a minimum of two different course prefixes, and no more than 5 credits each of a world language at the 100 level and a studio/performance class may be applied to the distribution requirements.

Individual, Cultures and Societies .................................... 15
  Choices must include a minimum of two different course prefixes.

Natural World, the ......................................................... 15
  Choices must include a minimum of two different prefixes; 5 credits must be in a lab science. Students may choose up to 5 credits from the following list of courses: Anthropology, Computer Science, Engineering, Geography, Mathematics, Philosophy OR Psychology.

AREAS OF KNOWLEDGE DISTRIBUTION CREDITS 45

TOTAL PROGRAM CREDITS 90

ASSOCIATE IN BUSINESS

Direct Transfer Agreement (DTA)

This degree is suited for students planning to transfer into a baccalaureate business degree program. It will satisfy the lower division education requirements for business degrees at Washington’s public 4-year colleges and universities including accounting & business courses.

BASIC REQUIREMENTS

Communication Skills

ENGL& 101  English Composition I  ........................ 5
ENGL& 102  Composition II  ........................ 5

COMMUNICATION SKILLS CREDITS 10

Quantitative/Symbolic Reasoning Skills

MATH&148  Business Calculus  ........................ 5

Following can be substituted:

MATH 151  Calculus I  ........................ 5

QUANTITATIVE/SYMBOLIC REASONING SKILLS CREDITS 5

BASIC REQUIREMENTS CREDITS 15
Associate of Science Degree - Transfer Pre-Major Program (A.S.)

This two-year Associate of Science degree program is designed for those who intend to pursue a bachelor’s, master’s, or doctoral degree in the following areas:

- Atmospheric Sciences
- Biological Sciences
- Chemistry
- Computer Science
- Engineering
- Environmental Sciences
- Geology
  - Mathematics
  - Medicine
  - Pharmacy
  - Physics

**BASIC REQUIREMENTS**
Select from the following depending on pre-major area:

- **ENGL & 101** English Composition I .................. 5
- **MATH & 146** Introduction to Statistics ................ 5
- **MATH & 151** Calculus I ........................... 5
- **MATH & 152** Calculus II .......................... 5

**BASIC REQUIREMENTS CREDITS** 20

**AREAS OF KNOWLEDGE**
Courses taken must have at least three different prefixes and must be from both areas:

- Visual, Literary and Performing Arts ................... 5
- Individual, Cultures and Societies .................... 5

**AREAS OF KNOWLEDGE CREDITS** 15

**MAJOR AREAS OF STUDY**
The number of credit requirements for major areas of study vary depending on pre-major. Students should consult with an advisor before preparing their academic plan.

**MAJOR AREAS OF STUDY CREDITS** 55-58

**TOTAL PROGRAM CREDITS** 90

See page 174 for details about South’s programs.
South Seattle College offers three Bachelor of Applied Science degrees in Hospitality Management, Professional/Technical Education and Instructional Design, and Sustainable Building Science Technology. These degrees build on associate degrees that provide workplace skills in specific career areas. When compared to traditional bachelor’s degrees, applied baccalaureate degrees incorporate more applied, hands-on learning focused on a particular industry. They are designed with strong internship components and may offer credit for prior learning.

Tuition rates are different for upper division courses; see the rate chart on page 19.

Hospitality Management

Technical Education
(206) 934-5394

The Bachelor of Applied Science (B.A.S.) in Hospitality Management at South Seattle College prepares those students who have completed a two-year technical degree or approved associate’s degree with a broad skill set of competencies in the hospitality industry.

Students take upper-division classes to prepare for management, marketing, human resource, and technical positions in all facets of the hospitality industry, including tourism, hotel operation, restaurant management, catering, cruise ship-casino operations, and travel. Students will have opportunities to gain occupational competencies through internships and networking with industry leaders.

This program is unique in its focus to provide applied management training to students in the region’s largest hospitality industry.

For detailed information on admissions criteria or other requirements refer to the Hospitality Management Student Handbook. Contact the Technical Education office for a copy.

Hospitality Management Bachelor of Applied Science Degree (B.A.S.)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMG 301</td>
<td>Introduction to Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>HMG 302</td>
<td>Hospitality Management</td>
<td>5</td>
</tr>
<tr>
<td>HMG 303</td>
<td>Hospitality Marketing</td>
<td>5</td>
</tr>
<tr>
<td>HMG 310</td>
<td>Hospitality Computer Applications</td>
<td>3</td>
</tr>
<tr>
<td>HMG 311</td>
<td>Lodging Operations</td>
<td>3</td>
</tr>
<tr>
<td>HMG 312</td>
<td>Legal Issues in Hospitality</td>
<td>3</td>
</tr>
<tr>
<td>HMG 313</td>
<td>Entrepreneurship</td>
<td>3</td>
</tr>
</tbody>
</table>

HMG 314  Diversity and Culture in Travel and Tourism . . . 5
HMG 401  Cost Controls .................................... 5
HMG 402  Hospitality Accounting .......................... 5
HMG 411  Human Resource Management ........................ 3
HMG 412  Service Operations Management .................... 5
HMG 420  Ethical Leadership .................................. 3
HMG 489  Professional Career Development ................... 1
HMG 490  Internship Lecture .................................. 3
HMG 491  Hospitality Management Capstone .................... 5

ACADEMIC COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST&amp; 220</td>
<td>Public Speaking</td>
<td>5</td>
</tr>
<tr>
<td>ECON&amp; 201</td>
<td>Micro Economics</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 102</td>
<td>Composition II</td>
<td>5</td>
</tr>
<tr>
<td>HMG 314</td>
<td>Diversity and Culture in Travel and Tourism</td>
<td>5</td>
</tr>
<tr>
<td>NTR 150</td>
<td>Human Nutrition</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL PROGRAM CREDITS</td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>

Professional Technical Education and Instructional Design

Technical Education
(206) 934-6783

The Bachelor of Applied Science (B.A.S.) degree in Professional Technical Education and Instructional Design is a 90-credit program that offers industry professionals a pathway to becoming a skilled Technical Education Teacher.

This B.A.S. is intended for students who (1) have completed a two-year associate of applied science-transfer (AAS-T) degree or another approved associate-transfer degree and; (2) have at least two years of industry specific work experience.

The program emphasizes upper-division coursework that focuses on the complexities of the adult learner, the role of community colleges in society, and issues of equity. Students will learn how to shift their focus from teaching purely for content mastery to student-centered learning and leadership.

Professional Technical Education and Instructional Design Bachelor of Applied Science Degree (B.A.S.)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE 301</td>
<td>Workforce Instructional Methods and Materials</td>
<td>3</td>
</tr>
<tr>
<td>PTE 302</td>
<td>Course Development Design</td>
<td>3</td>
</tr>
<tr>
<td>PTE 310</td>
<td>Managing the Learning Environment</td>
<td>3</td>
</tr>
<tr>
<td>PTE 311</td>
<td>Technology in Learning</td>
<td>3</td>
</tr>
<tr>
<td>PTE 312</td>
<td>American Community College</td>
<td>3</td>
</tr>
<tr>
<td>PTE 314</td>
<td>Professional Portfolio</td>
<td>3</td>
</tr>
<tr>
<td>PTE 315</td>
<td>Workforce Experience Practicum</td>
<td>10</td>
</tr>
</tbody>
</table>
Sustainable Building Science Technology
Technical Education
(206) 934-5375
southseattle.edu/bas

The Bachelor of Applied Science (B.A.S.) degree in Sustainable Building Science Technology prepares students who have completed a two-year technical degree or approved associate degree for professional jobs managing the operations of high-tech buildings. Students enroll in upper-division classes that focus on building functions and project finance with the goal of making facilities more durable, sustainable, efficient and economical. Graduates will be eligible for employment in diverse fields such as operations maintenance, capital programs and project management, strategic planning and portfolio management, and corporate real estate finance.

For detailed information on admissions criteria or other requirements refer to the Sustainable Building Science Technology website.

Sustainable Building Science Technology Design Bachelor of Applied Science Degree (B.A.S.)

TECHNICAL SPECIALTY COURSES
SBST 301 Building Science .................. 3
SBST 302 Building Components and Systems .... 2
SBST 314 Professional Portfolio .............. 1
SBST 315 Workforce Experience Practicum .... 10
SBST 321 Building Codes in Washington State .. 2
SBST 322 Energy Analysis and Auditing ....... 3
SBST 325 Internship .......................... 10

SBST 331 Financing Energy Efficiency and Renewable Energy ................. 2
SBST 332 Building Energy Codes in Washington State .................. 3
SBST 333 Building Controls for Energy Efficiency ............. 4
SBST 401 Utility Rates, Regulation and Economics ........ 2
SBST 402 Lighting ................................ 3
SBST 421 Energy Policy .......................... 3
SBST 422 Facility Management .................. 4
SBST 431 Professional Communication ............ 4
SBST 432 Fiscal Management for Facility Managers ...... 3
SBST 489 Capstone ............................. 1

ADDITIONAL ACADEMIC COURSE REQUIREMENTS
ENGL& 102 Composition II .................. 5
PHYS& 100 Physics .................. 5
CMST& 220 Public Speaking .................. 5
BUS 210 Business and Economic Statistics ........ 5
INFO 180 Research for the 21st Century ......... 5
VLPA Elective .................................. 5

TOTAL CREDITS 90

Additional B.A. & B.S. Degree Opportunities at South
The University Center at South
southseattle.edu/universitycenter

The University Center also offer students majoring in Information Technology or Business Information Technology another opportunity to complete a four-year degree at South.

Eastern Washington University
(425) 564-5100

BACHELOR OF SCIENCE IN TECHNOLOGY: APPLIED TECHNOLOGY
For students who specialize in web design and development, computer applications/helpdesk, network administration, business information technology and more. To participate, students must first obtain an Associate of Applied Science degree at South Seattle, or be near completion of one, in any of the following programs: Computer Applications/Help Desk, Network Administration or Business Information Technology (BIT). All four years will be at South. Three of the four years students pay South’s tuition rates; the fourth year students pay EWU’s tuition rates.
Community Lifelong Learning Classes

(206) 934-5339
cedstaff@seattlecolleges.edu
learnatsouth.org

Lifelong learning classes are non-credit and non-graded courses that focus on personal enrichment. An array of short-term courses are offered in such fields as languages and culture, gardening, food and wine, health and wellness, career planning, business basics, family and financial planning, and computer applications. New classes, including online classes, are developed continually. Register online.

Financial Planning

Affiliate of the College for Financial Planning

(206) 934-5339
learnatsouth.org

As an affiliate of the College for Financial Planning, South Seattle College offers both the educational course of instruction and the “Live Review” for those seeking to develop a professional career as a financial planner and/or those studying for the national certification exam for financial planners. Content areas include financial planning and insurance, investment, income tax and retirement planning, employee benefits and estate planning.

Internship/Cooperative Education

WorkSource/Career Development Services

(206) 934-7935
southseattle.edu/worksource/student-information.aspx

The Internship program offers the opportunity to apply what students learn in class in a professional setting. Internships are credit-bearing experiences that complement classroom learning and require permission. The Internship Office is located in the WorkSource Center and provides support for any South student who is interested in learning more.

Senior Adult Education

(206) 934-5339
learnatsouth.org

To meet the growing demand for lifelong learning opportunities, South Seattle College offers many classes and discussion groups designed especially for senior adults. Classes cover a wide range of topics and reflect a broad range of interests. Classes are normally held during daytime hours, on campus and in senior centers and retirement centers. There are usually no long assignments, examinations or letter grades. Registration is by mail, phone or online.

In addition to the Senior Adult Education programs, persons over 60 may enroll in college courses. Call the Admissions Office for further information on this waiver.

Teacher Preparation

(206) 934-5339
learnatsouth.org

South offers courses for those working toward a Career and Technical Education (CTE) Certification in Washington state. This program is for business and industry professionals who would like to become middle school or high school teachers.

Bridge to College/Pre-College

Basic & Transitional Studies Division

(206) 934-5363

Basic studies courses provide instruction for those who want to improve their English, to improve basic verbal and math skills, to earn a high school diploma or GED in order to get better jobs, to continue their education and prepare for college-level work, or to enter college while still in high school. Each of the programs in this area is designed to meet a particular set of student needs.

BRIDGE TO COLLEGE PROGRAMS:
- Developmental Education
- Transitional ESL
- Concurrent High School / College Programs
- High School to College Preparation Programs

PRE-COLLEGE PROGRAMS:
- Adult Basic Education
- ESL – Beginning & Intermediate Levels
- GED Preparation
- High School Completion
Programs of Study

### Bridge to College Programs

#### Developmental Education

**English, Mathematics and Human Development Courses**

(206) 934-6600

Many students entering college or returning after time away from studies need additional work to prepare for college-level courses. The Seattle Colleges offer a series of courses in English, mathematics, and human development. Placement in one or more of these courses is determined by performance on placement tests required for admission to the specific college program or courses. Courses in this category are those numbered below 100. They are described in the course description sections for English (ENGL), mathematics (MATH) and human development (HDC).

#### Transitional ESL

**English as a Second Language**

(206) 934-5363

Placement in transitional ESL classes (advanced levels) is done by standardized placement testing. These courses prepare students for college-level work with increasing emphasis on note-taking, composition, oral presentation, and class discussion at high levels. Although these classes do not count as credit for college-level work, ESL 093-099 can be covered by financial aid. Tuition for these classes is the same as regular tuition.

**NOTE:** International Students should take ESL classes through International Programs, page 27.

#### Concurrent High School/College Programs

**Running Start**

(206) 934-6478
southseattle.edu/runningstart/

This program allows qualified high school juniors and seniors to register for college-level courses while remaining enrolled at their local high school. Full to partial tuition is paid for by the state; students pay mandatory fees, buy their own books, and provide their own transportation. Students must take a placement test and be ready for college level coursework. As a dual enrollment program, students receive both high school and college credit, thus accelerating their progress through the education system. Running Start is a good option for high school students who are ready to start college early.

**See page 22 for more information.**

### High School to College Preparation Programs

**Career Link High School**

(206) 934-7946
southseattle.edu/programs/careerlk.htm

Career Link prepares students for success in college and careers while they work toward earning a high school diploma. Students who are 16 to 21 years old, have left high school without a diploma and want to earn a diploma as well as to gain skills for success in college and beyond, can be assisted by Career Link at South Seattle. Tuition for students is free and support is available for transportation, books and supplies. In addition, Career Link at South Seattle offers support through this program and other campus programs for students to enroll in regular college classes. All Career Link students at South Seattle receive ongoing academic advising and assistance to ensure they are on track to graduate and have a High School & Beyond plan in place.

**See page 22 for more information.**

**SAT Preparation Courses**

(206) 934-6600

South helps students prepare for the SAT (Scholastic Aptitude Test) college entrance exam by offering math and verbal SAT prep courses most quarters. Held on Saturdays, the courses offer a thorough review of core topics and provide test-taking strategies. Students also have the opportunity to be exposed to a college environment, as well as to earn college credit. Running Start students can take the courses at no cost.

**TRiO Educational Talent Search**

(206) 934-6401

The purpose of TRiO Search is to help low-income and potential first-generation college students successfully graduate from secondary school and enroll in post-secondary education. This federally funded TRiO program serves 580 students each year from five secondary schools and two middle schools located in West Seattle. Students are provided with services directly at their school sites during the school year by program staff. Students must apply for the program, be deemed eligible, and be accepted before receiving any program services. Services that are offered and provided to students, both in individual and group settings, include academic advising and assistance with secondary course selection, postsecondary information and application assistance, financial aid information and application assistance, financial literacy information, college entrance examinations information and registration assistance, career awareness and planning information, connections to tutorial services, and college campus tours and visits.

**See page 22 for more information.**
Upward Bound
(206) 934-6401
The purpose of TRiO Upward Bound is to provide low-income and potential first generation students with the skills and motivation to complete high school, go to college, and graduate from college. This federally funded TRiO program serves 132 students each year from four secondary schools in West Seattle and Seatac, through two Upward Bound grants. The goal is to maximize students’ potential for graduation from high school and subsequent college enrollment. Students are provided with services directly at their school sites during the school year by program staff, and on campus at SSCC during their summer program. Students must apply for the program and be accepted before receiving any program services. TRiO Upward Bound students receive services during their UB high school class and the summer program, including instruction in math, science, foreign language, SAT preparation, and arts/other electives, academic tutoring and instruction in core academic subjects, academic advising and assistance with secondary course selection, postsecondary information and application assistance, financial aid information and application assistance, financial literacy information, college entrance examinations information and registration assistance, career exploration and planning, and educational field trips and activities. The year-round program includes a six-week summer program on campus at South for intensive academic and college preparatory activities.

See page 23 for more information.

Pre-College Programs

Adult Basic Education
(206) 934-5363
Adult Basic Education (ABE) classes are for adults who already know English but wish to improve their basic reading, writing, and math skills. Students can start at a level matching their current skills and progress at their own pace. Classes in basic math and reading, writing and communication skills are designed to help adults become more self-sufficient, improve their job prospects, prepare for the General Education Development (GED®) test or qualify for entry into post-secondary education programs. Students must attend a mandatory orientation and placement testing session prior to enrolling in the class. Course descriptions are listed under ABE. Classes are non-credit. Tuition is low, currently $25 per quarter (subject to change). The fee may be waived for low-income students.

English as a Second Language (ESL)
(206) 934-5363
English as a Second Language (ESL) classes, levels 1-5, help non-native speakers communicate in English and increase their understanding of American culture. Conversation, pronunciation, reading, writing, and grammar are taught with special emphasis on the English skills needed for survival and employment. These non-credit courses cost $25 per quarter tuition (subject to change). Course descriptions are found under ESL. Student enrollment depends on eligibility and space availability. Students are placed in class based on their CASAS Test results. Call the department for placement testing and registration information.

When students test high enough, they can move on to Transitional ESL, concentrating on college-preparation skills. Tuition is currently $25 per quarter (subject to change). Note: International students take ESL classes through International Programs, page 27.

GED® Preparation
(206) 934-5363
Adults may demonstrate they have reached an education level equal to a high school diploma by taking the General Educational Development (GED®) test. GED® preparation helps students improve their reading, writing and math skills before taking the test. The course also covers the science and social studies skills, stresses math for practical problem-solving, English usage, reading comprehension and test-taking skills.

Ability to read at or above eighth grade level or completion of ABE Level 3 is required. Students who pass the test earn a GED® certificate, which is accepted by colleges, workforce training programs, unions, and many employers as equivalent to a high school diploma. See course descriptions under GED®. Students must attend a mandatory orientation and placement testing session prior to enrolling in the class. Tuition is $25 per quarter (subject to change). The fee may be waived for low-income students.

See page 24 for more information.

High School Completion
For students who have not completed work for a high school diploma, High School Completion offers the opportunity to earn the Standard High School Diploma or the Associate Degree Conversion Diploma. Students planning to work toward a high school diploma should obtain a copy of “Requirements for the High School Diploma” brochure from the Admissions Office for complete information.

See page 24 for details about the diploma options and possible tuition waiver for high school completion.
Distance learning offers an opportunity for students to enroll and complete South Seattle College courses from the convenience of home or work. As distance learners, students can enroll in individual courses for personal interest, to improve knowledge and skills, or to earn college credit for the A.A. degree program. Distance learning students use a variety of learning management systems and the Internet and have contact with instructors to complete their coursework and earn college credits. Registration for distance education courses is the same as other credit classes.

See page 25 for more details on distance education.

The Intensive English Program (IEP) is a self-supporting program offering a variety of accelerated English as a Second Language courses for international students. The majority of IEP students are preparing for academic and technical programs here at South. Successful completion of the IEP enables students to enter one of the college’s academic or technical programs without a TOEFL or IELTS requirement or further placement testing.

Additional English programs include customized short-term programs for international groups, and the Summer Institute, a study-tour program highlighting communication skills and sight-seeing in Seattle.

See page 27 for more information on International Programs.

Assistance with identifying educational opportunities abroad is available through the Center for International Education. Explore information on exchange programs in China, Japan, Denmark and Italy; service learning through the Seattle Colleges Global Impact programs in Vietnam, Peru, Tanzania and India; and on quarter-long programs in Spain, Costa Rica, London, Italy, and Peru. See the Study Abroad Advisor to select courses that will apply to South’s degree requirements.

The Worker Retraining program offers a variety of services to dislocated workers: individuals who have been laid off and are collecting unemployment insurance, have been issued a WARN notice, are displaced homemakers, or had to close a small business due to the economic downturn. To get a new start on a career, interested individuals should attend the Start Next Quarter Orientation Session. Worker Retraining helps recipients to gain new skills in order to return to the workforce in competitive wage jobs. Services may include:

- High wage, high demand job training programs
- Liaison to other agencies, programs & funding
- Tuition assistance (subject to income guidelines and availability of funds)
- Help with applying for other funding such as Federal Trade Act Assistance, NAFTA and regular financial aid
- Educational planning
- Interest assessment
- Career advising/counseling
- Job search skills
- Internships
- Job search assistance

For more information and to sign up for orientation go to: www.startnextquarter.org

See page 29 for additional information on the Worker Retraining Program.
South Seattle College’s Georgetown Campus is located on 19 acres in the heart of Seattle’s industrial zone, Washington’s largest manufacturing center. The area is home to more than 4,000 businesses and 70,000 employees, supporting the largest number of family-wage jobs in Seattle. The campus is located near major airport, seaport and manufacturing operations, making it an ideal location for industrial and craft training and related services. South Seattle College supports a strategic objective to provide quality workforce training and apprenticeship opportunities that meet high occupational needs. The Georgetown campus hosts the Apprenticeship and Education Center, the Washington State Labor Education and Research Center, and multiple community and educational programs.

The Georgetown Campus consists of five training and instructional facilities with more than 100,000 square feet dedicated to classrooms, labs and offices. New buildings feature classrooms with increased technology and flexibility for instruction. Labs provide larger spaces for instruction and hands-on learning indoors. The new Gene J. Colin Education Hall is an excellent state-of-the-art space for classroom instruction, conferences and seminars, allowing for short-term and contracted training and community and business collaboration.

Apprenticeship & Education Center
(206) 934-5350
georgetown.southseattle.edu/

The Georgetown Campus trains more than 4,000 apprentices and journey-level workers annually in 30 different trades. Each of the training centers provides classroom and laboratory space with training equipment focused upon specific trade needs. Each program offers certificate options. The various certificates, plus an Associate of Applied Science degree option, provide students with flexibility to reach their educational goals. The apprenticeship programs offer immediate employment while training at family-wage jobs. Students learn in the classroom and labs and obtain practical hands-on experience in industry. Upon completion, the student is knowledgeable and experienced in his or her chosen trade or occupation. Programs usually last 3-5 years. General requirements are that participants be 18 years of age; possess a valid driver’s license; and go through a selection process which may include, but is not limited to, both written and physical testing, drug testing and an interview by a joint apprenticeship committee. The Apprenticeship & Education Center is currently cooperating with Joint Apprenticeship Committees to provide related and supporting instruction for apprentices and journey-level students in the following areas:

Aerospace Apprenticeship Programs
(206) 768-6629 | www.ajactraining.org

Boeing Machinist/Apprenticeships (Boeing Employees only)
(253) 657-2518 | apprenticeship@boeing.com

Boilermakers
(206) 624-4707 or (206) 391-2996
apprenticeship@boilermakerslocal104.org

Cement Masons
(206) 762-9286 | concretetraining@msn.com
Construction Industry Training Council/Carpentry, Heavy Equipment, HVAC and Plumbing (in development)
(425) 452-1950 | concretetraining@msn.com
Drywall Finishing and Striping
(206) 762-8332 | ericp@ftinw.org
Floorcovering
(253) 762-8332 | todd@lupatdc5.org
Glaziers & Glassworkers
(206) 762-8332 | Sarahs@ftinw.org
Greater Puget Sound Area HVAC/Marine Electricians (GPSEW)
(206) 395-6500 | harry@ibew46.com
Ironworkers
(206) 244-2993 | gachristiansen86.aol.com
Meatcutters
(206) 816-4576 | greg.brooks@gmail.com
Northwest Construction Linemen, Power Line Clearance & Tree Trimmers
(360) 816-7100 | bstone@nwlinejatc.com
Puget Sound Electrical
(425) 228-1177 | bill@PSEJATC.ORG
Seattle City Light
(206) 386-1603 | sherietanaka-eng@seattle.gov
Snohomish County Public Utility District 1
(425) 783-5035 | jkmainstone@snopud.com
Sprinkler Fitters
(206) 764-0395 | s-miller1@outlook.com
Western Washington Masonry Trades, Bricklayers, Caulkers, Cleaners, Pointers, Tilesetters
(206) 767-3986 | wwmtrades@msn.com
Western Washington Painting
(206) 762-8332
(206) 767-3986
robertr@ftinw.org

Corporate & Customized Training
(206) 934-5857
georgetown.southseattle.edu/

Corporate & Customized Training offers high-quality customized training solutions to meet the needs of business, industry and our community. We help businesses reach their goals by customizing training to their specific industry, location, schedule and content needs.

First Aid & Safety (Industrial)
(206) 934-5350
georgetown.southseattle.edu/
The Washington Industrial Safety and Health Act (WISHA) specifies that employees and supervisors in many industries must have formal first aid and safety training. This training includes first aid/AED with CPR and blood-borne pathogens certification. An 8-hour course is available to those who require this training.

Flagging & Traffic Control Certification
(206) 934-5134 or (206) 934-5350
georgetown.southseattle.edu/

Flaggers are responsible for the safe and effective movement of traffic through construction or maintenance zones, safety of the workforce involved, and minimum delay to the motorist. This six-hour certification course, based on the Washington State Safety Standards for Construction Work and the Manual on Uniform Traffic Control Devices, is taught by certified instructors. Classes are on Fridays and testing will be conducted during class. Certification is valid for three years in Washington, Oregon and Idaho. Payment for these classes is by credit card or Money Order only (Cash/Checks are not accepted).

Washington State Labor Education and Research Center
(206) 934-5380
georgetown.southseattle.edu/LERC/
The Labor Center was established in 1987 to provide direct education and research services in higher education to unions in Washington State. The mission of the Labor Center is to deliver high-quality education and training programs for the dynamic and diverse working women and men of Washington State by using best practices of adult education. The curriculum builds the skills, confidence and knowledge needed to become leaders in efforts to improve work lives and communities, and to promote a just economy through collective action. Though based at South, the Labor Center is a statewide organization and a unique program within higher education.

The Center also organizes large public events such as conferences, serves as a resource for faculty, students, and staff, produces the Washington State Workers’ Rights Manual, teaches classes through Continuing Education at South, provides contract trainings to unions and other workers’ organizations, and has a book, film, and training materials library available for public use.
South Seattle College offers degrees and certificates which vary in length from one to seven quarters in more than 20 workforce education areas. These programs are designed to prepare students for careers and/or to expand skills in career areas. South also offers four-year Bachelor of Applied Science degrees in Hospitality Management, Professional Technical Education and Instructional Design, and Sustainable Building Science Technology. See page 166 for more detail on B.A.S. degree programs.

Several of the following professional technical programs offer short-term training certificates. Students may build skills and add certifications over time to progress in their fields. Contact the program office for information.

South Seattle College is accredited by the Northwest Commission of Colleges and Universities.

Accounting

Technical Education
(206) 934-5394

The Accounting program provides a foundation for management trainee positions. Students receive background in accounting, communications skills, and law and finance. Students also gain an understanding of today’s business world and business technology. Check with the department for short-term certificate offerings such as Medical Office Assistant.

One-Year Certificate

PREREQUISITES
Must enter program with 25 wpm keyboarding skill. If not met, BUS 104 - Keyboarding must be taken in the first quarter.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping I</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 120</td>
<td>Introduction to Accounting/Bookkeeping II</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 214</td>
<td>Accounting Systems</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 257</td>
<td>Business Tax Accounting</td>
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<tr>
<td>BUS 104</td>
<td>Keyboarding</td>
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<tr>
<td>BUS 115</td>
<td>Computational Skillbuilding</td>
<td>2</td>
</tr>
<tr>
<td>BUS 177</td>
<td>Spreadsheets</td>
<td>5</td>
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TECHNICAL SPECIALTY CREDITS: 30

RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BUS 101</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
<tr>
<td>BUS 131</td>
<td>Integrated Communications I</td>
<td>5</td>
</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Business Communications</td>
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<tr>
<td>PSYC 100</td>
<td>General Psychology</td>
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</table>

Following can be substituted:
PSYC 240 Psychology of Human Relations        3

RELATED INSTRUCTION CREDITS: 28-30

TOTAL PROGRAM CREDITS: 58-60

Associate of Applied Science Degree (A.A.S.)

PREREQUISITES
Must enter program with 25 wpm keyboarding skill. If not met, BUS 104 - Keyboarding must be taken in the first quarter.

TECHNICAL SPECIALTY COURSES

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<td>5</td>
</tr>
<tr>
<td>ACCT &amp; 203</td>
<td>Principles of Accounting III</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 214</td>
<td>Accounting Systems</td>
<td>5</td>
</tr>
<tr>
<td>ACCT 257</td>
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<td>BUS 104</td>
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</tr>
<tr>
<td>BUS 115</td>
<td>Computational Skillbuilding</td>
<td>2</td>
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</tbody>
</table>

Following can be substituted:
BUS 210 Business & Economic Statistics        5
BUS 177 Spreadsheets                           5
BUS & 201 Business Law                         5

Following can be substituted:
POL & 200 Intro to Law                         5
BUS 216 Professional Development               5

Following can be substituted:
ACCT 197 Work Experience - Accounting          3-5

BUS 235 Oral Communications in Business        5

Following can be substituted:
CMST & 101 Introduction to Communication        5

RELATED INSTRUCTION

<table>
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<tr>
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<tbody>
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<td>BUS &amp; 101</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS 230</td>
<td>Business Communications</td>
<td>5</td>
</tr>
<tr>
<td>ECON &amp; 201</td>
<td>Micro Economics</td>
<td>5</td>
</tr>
</tbody>
</table>

Following can be substituted:
ECON & 202 Macro Economics                     5
PSYC & 100 General Psychology                   5

Following can be substituted:
PSYC 240 Psychology of Human Relations          3

RELATED INSTRUCTION - ELECTIVE

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 170</td>
<td>Information Technology I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 120</td>
<td>Databases I</td>
<td>5</td>
</tr>
<tr>
<td>SMG 100</td>
<td>Leadership and Supervision</td>
<td>3</td>
</tr>
<tr>
<td>SMG 103</td>
<td>Supervising A Diverse Workforce</td>
<td>3</td>
</tr>
<tr>
<td>SMG 120</td>
<td>Hiring Personnel</td>
<td>3</td>
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</tbody>
</table>

TOTAL PROGRAM CREDITS: 94-99
## Associate of Applied Science - T Degree (A.A.S.-T)

### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
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Following can be substituted:

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<tbody>
<tr>
<td>ACCT&amp; 201</td>
<td>Principles of Accounting</td>
<td>5</td>
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</table>

### RELATED INSTRUCTION

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<tbody>
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<td>Keyboarding</td>
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</tr>
<tr>
<td>BUS 115</td>
<td>Computational Skillbuilding</td>
<td>2</td>
</tr>
</tbody>
</table>

### TECHNICAL SPECIATY CREDITS 147

### RELATED INSTRUCTION: ELECTIVE

Select two of the following:

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<thead>
<tr>
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<td>BUS 170</td>
<td>Information Technology I</td>
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<td>CTN 120</td>
<td>Databases I</td>
<td>5</td>
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<td>SMG 100</td>
<td>Leadership and Supervision</td>
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<tr>
<td>SMG 103</td>
<td>Supervising A Diverse Workforce</td>
<td>3</td>
</tr>
<tr>
<td>SMG 120</td>
<td>Hiring Personnel</td>
<td>3</td>
</tr>
</tbody>
</table>

### TOTAL PROGRAM CREDITS 96-99

## Aeronautical Technology

### Aviation Maintenance Division

**Contact:** (206) 934-5394

South offers both certificate and degree programs in Aviation Maintenance and Aeronautical Technology. Check with the department for short-term certificate offerings relating to General Aviation for Composite and Aviation Composites Lab.

The Aviation Maintenance certificate program offers a preparatory program for airframe and powerplant (A&P) mechanics. The two-year (8 quarters) curriculum provides training on current aviation airframes and powerplants.

Students who successfully complete the curriculum are awarded a certificate of completion qualifying them to take the Federal Aviation Administration examination for the airframe and powerplant mechanic license.

Either the airframe or the powerplant component may be taken separately. Completion of both components is highly recommended for increased employment opportunities. The aviation maintenance airframe and powerplant curriculum is approved by the F.A.A. (Air Agency Certificate # HQ6T596N).

The A.A.S. and A.A.S.-T degree programs provide graduates of recognized airframe and powerplant programs and experienced F.A.A.-certified mechanics the opportunity to expand knowledge and training, and earn an Associate of Applied Science degree.

### Associate of Applied Science Degree (A.A.S.)

Completion of Certificate Requirements in Aviation Maintenance Airframe & Powerplant Programs: 147 credits

### PREREQUISITES

Special requirements for admission

### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AMT 111</td>
<td>Basic Science for Aviation</td>
<td>17</td>
</tr>
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<td>AMT 112</td>
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</tr>
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<td>AMT 113</td>
<td>Airframe Structure and Repair</td>
<td>17</td>
</tr>
<tr>
<td>AMT 234</td>
<td>Powerplant Systems and Components</td>
<td>17</td>
</tr>
<tr>
<td>AMT 235</td>
<td>Advanced Powerplant</td>
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### TECHNICAL SPECIALTY CREDITS 147

### RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ICT 103</td>
<td>Computer Applications I</td>
<td>2</td>
</tr>
<tr>
<td>IFS 100</td>
<td>Industrial First Aid and Safety</td>
<td>2</td>
</tr>
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</table>

Incorporated as part of the Aviation Maintenance Airframe & Powerplant Certificate program and therefore is not included in the total credits.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MATH 111</td>
<td>Applied Mathematics I</td>
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</table>

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<tr>
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<tbody>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

### RELATED INSTRUCTION CREDITS 18
ELECTIVE COURSES
A minimum of 9 credits in two of the following areas:
Visual, Literary and Performing Arts. .......................... 5
Individual, Cultures and Societies .............................. 5
Natural World, the ................................................................ 5
REQUIRED ELECTIVE CREDITS 9
TOTAL PROGRAM CREDITS 156

Airframe & Powerplant Seminar
Short-Term Certificate
(206) 934-6660

This intensive seminar is for those with an approved 8610-2 FAA rating application. It provides a review of General, Airframe and Powerplant sections of the written, oral and practical FAA-licensing exams with special focus on those areas of civilian aviation not typically encountered during military service. It provides the student with the skills, knowledge and abilities to pursue a career as an Aviation Maintenance Technician.

TECHNICAL SPECIALTY COURSES
AMT 295 Airframe & Powerplant Master Class .................................. 16
AMT 296 Amt Professional Portfolio .................................................. 2
TOTAL PROGRAM CREDITS 18

Associate of Applied Science - T Degree (A.A.S.-T)

PREREQUISITES
Students must meet with an advisor for entry into this program. A placement test is required to assure language and computational skills are sufficient to assure program success.

Special requirements for admission: Satisfactory completion of a minimum of 240 prescribed clock-hours of instruction per quarter and a 2.0 minimum grade point average (70%) on each class assignment and exam.

TECHNICAL SPECIALTY COURSES
AMT 111 Basic Science for Aviation ............................................... 17
AMT 112 Basic Electricity for Aviation .............................................. 17
AMT 113 Airframe Structure and Repair ........................................... 17
AMT 133 Powerplant Theory and Maintenance ............................... 17
AMT 214 Airframe Systems .............................................................. 17
AMT 215 Advanced Airframe .......................................................... 17
AMT 234 Powerplant Systems and Components .......................... 17
AMT 235 Advanced Powerplant ....................................................... 17

TECHNICAL SPECIALTY CREDITS 136

RELATED INSTRUCTION
ENGL 101 English Composition I .................................................. 5
IFS 100 Industrial First Aid and Safety ............................................. 2
MATH 102 College Algebra .............................................................. 5
MATH 111 Applied Mathematics I .................................................... 5
PSYC 100 General Psychology ....................................................... 5

ELECTIVE COURSES CREDITS 9
TOTAL PROGRAM CREDITS 160

Aviation Airframe Mechanic Certificate

REQUIREMENTS
Satisfactory completion of a minimum of 240 prescribed clock-hours of instruction per quarter and a minimum 2.0 grade point average (70%) on each class assignment.

PREREQUISITES
Students must meet with an advisor for entry into this program. A placement test is required to assure language and computational skills are sufficient to assure program success.

TECHNICAL SPECIALTY COURSES
AMT 111 Basic Science for Aviation ............................................... 17
AMT 112 Basic Electricity for Aviation .............................................. 17
AMT 113 Airframe Structure and Repair ........................................... 17
AMT 214 Airframe Systems .............................................................. 17
AMT 215 Advanced Airframe .......................................................... 17
ENGL 105 Applied Composition ....................................................... 3
ENGL 106 Technical Writing ............................................................ 3
ICT 103 Computer Applications I .................................................. 2
PSYC 240 Psychology of Human Relations ...................................... 3

TOTAL PROGRAM CREDITS 96
Aviation Maintenance Airframe & Powerplant Certificate

REQUIREMENTS
Satisfactory completion of a minimum of 240 prescribed clock-hours of instruction per quarter and a minimum 2.0 grade point average (70%) on each class assignment.

PREREQUISITES
Students must meet with an advisor for entry into this program. A placement test is required to assure language and computational skills are sufficient to assure program success.

TECHNICAL SPECIALTY COURSES

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<td>AMT 133</td>
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</tbody>
</table>

TOTAL PROGRAM CREDITS 147

Aviation Powerplant Mechanic Certificate

REQUIREMENTS
Satisfactory completion of a minimum of 240 prescribed clock-hours of instruction per quarter and a minimum 2.0 grade point average (70%) on each class assignment.

PREREQUISITES
Students must meet with an advisor for entry into this program. A placement test is required to assure language and computational skills are sufficient to assure program success.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AMT 111</td>
<td>Basic Science for Aviation</td>
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<td>AMT 112</td>
<td>Basic Electricity for Aviation</td>
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<td>AMT 133</td>
<td>Powerplant Theory and Maintenance</td>
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<td>AMT 234</td>
<td>Powerplant Systems and Components</td>
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RELATED INSTRUCTION

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<td>ENGL 106</td>
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<tr>
<td>ICT 103</td>
<td>Computer Applications I</td>
<td>2</td>
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<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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TOTAL PROGRAM CREDITS 96

General Aviation Short-Term Certificate

Aviation Maintenance Division
(206) 934-5394

Provides foundational instruction in the field of aviation maintenance.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ACM 101</td>
<td>Intro to Aviation Industrial Hygiene</td>
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<tr>
<td>ACM 102</td>
<td>Measurement and Drawings - Aviation</td>
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<td>ACM 103</td>
<td>Materials: Properties, Choice and Application</td>
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<td>ACM 104</td>
<td>Composites Lab A - General Aviation</td>
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<tr>
<td>ACM 198</td>
<td>Capstone A - Aerospace Comp Tech</td>
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</table>

TOTAL PROGRAM CREDITS 18

Aerospace Composite Technician

Composites Technology
(206) 934-5394

The Aerospace Composite Technician Program trains individuals in the knowledge and skills necessary for skilled entry-level positions in the areas of fabrication, assembly and repair of mixed and composite materials. Potential employment sectors include aerospace, marine, ground transportation, construction, energy, sporting equipment and medical devices. It consists of two short-term technical certificates (General Aviation, and Composite Aviation) and related instruction courses to receive a Certificate of Proficiency.

Certificate

REQUIREMENTS
Satisfactory completion of a minimum of 240 prescribed clock-hours of instruction per quarter and a minimum 2.0 grade point average (70%) on each class assignment.

PREREQUISITES
Students must meet with an advisor for entry into this program. A placement test is required to assure language and computational skills are sufficient to assure program success.

TECHNICAL SPECIALTY COURSES

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<td>ACM 104</td>
<td>Composites Lab A - General Aviation</td>
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<td>Composite Fabrication &amp; Tooling</td>
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<td>ACM 112</td>
<td>Composite Inspection &amp; Repair</td>
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<td>Composite Lab B - Advanced Composites</td>
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<td>Capstone A - Aerospace Comp Tech</td>
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<td>ACM 199</td>
<td>Capstone B - Aerospace Comp Tech</td>
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TOTAL PROGRAM CREDITS 35
### Composite Aviation Short-Term Certificate

(206) 934-5394

Prepares technicians to fabricate, assemble and repair composite materials on aircraft at an entry level.

#### TECHNICAL SPECIALTY COURSES

<table>
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<tr>
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<tr>
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<td>Composite Fabrication &amp; Tooling</td>
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<td>Composite Lab B - Advanced Composites</td>
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<tr>
<td>ACM 199</td>
<td>Capstone B - Aerospace Comp Tech</td>
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</tr>
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</table>

**Total Program Credits:** 17

### Auto Body Collision Repair

Automotive Collision Technology Training Center  
(206) 934-5391

Individuals employed in automotive collision, repair, and refinishing face constant challenges and variety. Career opportunities include frame technicians, body technicians, refinish technicians, advanced positions such as shop managers and owners, damage appraisers, and insurance adjusters. The curriculum is modular and competency-based, and program completion generally requires seven quarters. Advanced standing may be granted for work experience and/or related training.

The Auto Body Collision Repair program is a NATEF/ASE Master-certified training program and offers ASE certificate options. See an instructor for more information.

The A.A.S. degree provides an opportunity to develop leadership and communication skills and increase general knowledge.

The program also offers a short-term certificate in Mechanical & Electrical Components.

There are additional costs for books and supplies. Each student is responsible for the purchase of certain supplies and required tools before the instruction begins.

#### Certificate

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ABR 111</td>
<td>Introduction to Automotive Collision Technology</td>
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<td>ABR 112</td>
<td>Safety and Environmental Practices</td>
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<td>ABR 113</td>
<td>Welding and Cutting</td>
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<td>ABR 121</td>
<td>Panel Replacement and Alignment</td>
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<td>ABR 122</td>
<td>Working with Trim and Hardware</td>
<td>3</td>
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<tr>
<td>ABR 123</td>
<td>Metal Straightening</td>
<td>4</td>
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<tr>
<td>ABR 124</td>
<td>Body Fillers</td>
<td>4</td>
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<tr>
<td>ABR 131</td>
<td>Understanding Automotive Finishes</td>
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<tr>
<td>ABR 132</td>
<td>Preparing the Surface for Refinishing</td>
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<td>ABR 133</td>
<td>Preparing the Equipment, Paint &amp; Refinishing Mat</td>
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<td>ABR 134</td>
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<td>Damage Analysis</td>
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<td>ABR 162</td>
<td>Door Skin Repair and Replacement</td>
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<td>ABR 163</td>
<td>Quarter Panel Replacement</td>
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<td>ABR 164</td>
<td>Moveable Glass and Hardware</td>
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<td>ABR 171</td>
<td>Straightening Structural Parts</td>
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<td>ABR 172</td>
<td>Full and Partial Panel Replacement</td>
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<tr>
<td>ABR 173</td>
<td>Restoring Corrosion Protection</td>
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<tr>
<td>ABR 181</td>
<td>Steering and Suspension</td>
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<tr>
<td>ABR 182</td>
<td>Electrical and Electronic Systems</td>
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<td>ABR 183</td>
<td>Mechanical Systems</td>
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<tr>
<td>ABR 191</td>
<td>Applying the Finish</td>
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<tr>
<td>ABR 192</td>
<td>Blending Color</td>
<td>3</td>
</tr>
<tr>
<td>ABR 193</td>
<td>Solving Paint Application Problems</td>
<td>3</td>
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<tr>
<td>ABR 194</td>
<td>Finish Defects, Causes and Cures</td>
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**TECHNICAL SPECIALTY CREDITS:** 104
RELATED INSTRUCTION
ENGL 105 Applied Composition ..................... 3
ICT 103 Computer Applications I .................. 2
MATH 110 Applied Math for Technicians .......... 3
PSYC 240 Psychology of Human Relations .......... 3
RELATED INSTRUCTION CREDITS 11

ELECTIVE COURSES
A minimum of 10 credits from the following areas:
ABR 197 Industry Internship (ITEC Based) ........... 5
Credit Range: 1-5 credits
Visual, Literary and Performing Arts ................ 5
Individual, Cultures and Societies .................. 5
Natural World, the .................................. 5
Science & Mathematics ................................ 5
ELECTIVE COURSES CREDITS 10
TOTAL PROGRAM CREDITS 125

Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES
ABR 111 Introduction to Automotive Collision Technology ......................... 4
ABR 112 Safety and Environmental Practices .......... 3
ABR 113 Welding and Cutting .......................... 8
ABR 121 Panel Replacement and Alignment ............. 4
ABR 122 Working with Trim and Hardware ............. 3
ABR 123 Metal Straightening ........................... 4
ABR 124 Body Fillers .................................. 4
ABR 131 Understanding Automotive Finishes .......... 2
ABR 132 Preparing the Surface for Refinishing ...... 6
ABR 133 Preparing the Equipment, Paint & Refinishing Mat ......................... 5
ABR 134 Detailing ...................................... 1
ABR 161 Damage Analysis ............................... 5
ABR 162 Door Skin Repair and Replacement .......... 3
ABR 163 Quarter Panel Replacement ................. 5
ABR 164 Moveable Glass and Hardware .............. 2
ABR 171 Straightening Structural Parts .............. 7
ABR 172 Full and Partial Panel Replacement .......... 7
ABR 173 Restoring Corrosion Protection ............. 2
ABR 181 Steering and Suspension ..................... 6
ABR 182 Electrical and Electronic Systems .......... 7
ABR 183 Mechanical Systems .......................... 3
ABR 191 Applying the Finish .......................... 4
ABR 192 Blending Color ................................ 3
ABR 193 Solving Paint Application Problems ........ 3
ABR 194 Finish Defects, Causes and Cures .......... 3
TECHNICAL SPECIALTY CREDITS 104

Automotive Technology
Automotive Technology Training Center
(206) 934-5391

The Automotive Technology program provides students with training in the automotive repair industry, including maintaining, diagnosing and repairing all kinds of automobiles. Eighty to ninety percent of our students go to work at independent repair shops or dealerships around the Puget Sound area, and some have opened their own shops. The A.A.S.T provides skills in leadership and communication as well as automotive technology.

The program's advisory committee includes industry professionals who provide insight into industry trends, allowing students to learn what will be expected of them in the workplace. Students also have the opportunity to study towards ASE certification, increasing their employability. The Automotive Program is a NATEF/ASE certified training program. All of the instructors are ASE master certified and have over 80 years combined industry experience. For more information, come visit one of the instructors.

In addition to tuition, there are other costs to participate in the program including books, coveralls, hard toed shoes and a minimum of $300.00 in tools.
Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>AUT 100</td>
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<td>AUT 102</td>
<td>Advanced Electrical Systems</td>
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<tr>
<td>AUT 104</td>
<td>Automotive Electronics</td>
<td>3</td>
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<tr>
<td>AUT 106</td>
<td>Basic Power Accessories</td>
<td>3</td>
</tr>
<tr>
<td>AUT 112</td>
<td>Manual Transaxles and Clutches</td>
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<tr>
<td>AUT 114</td>
<td>Manual Transmissions, Transfer Cases &amp; Drive Axle</td>
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<td>AUT 116</td>
<td>Air Conditioning and Heating</td>
<td>6</td>
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<tr>
<td>AUT 118</td>
<td>Automatic Transmission Diagnosis and Service</td>
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<td>AUT 124</td>
<td>Tires and Wheel Alignment</td>
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<td>Basic Brake Systems</td>
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<td>AUT 130</td>
<td>Automotive Engine Rebuild</td>
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<td>AUT 134</td>
<td>Introduction to Drivability</td>
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<tr>
<td>AUT 138</td>
<td>Advanced Drivability and Fuel Systems</td>
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<tr>
<td>AUT 140</td>
<td>Engine Computers</td>
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<td>AUT 142</td>
<td>Emission Controls and Diagnostic Test Equipment</td>
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<tr>
<td>MVM 100</td>
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<td>MVM 102</td>
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TECHNICAL SPECIALTY CREDITS: 93

RELATED INSTRUCTION

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<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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RELATED INSTRUCTION CREDITS: 11

GENERAL EDUCATION COURSES

A minimum of 10 credits from any two of the following:

- Visual, Literary and Performing Arts | 5
- Individual, Cultures and Societies | 5
- Natural World, the | 5
- Science & Mathematics | 5
- Business & Office | 5
- Supervision & Management | 5
- Technical Specialty course | 5

GENERAL EDUCATION CREDITS: 10

TOTAL PROGRAM CREDITS: 114

When the A.A.S. sequence is followed, student will have achieved NATEF GST Certification, NATEF Minor Certification, and NATEF Major Certification as well.

Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES

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TECHNICAL SPECIALTY CREDITS: 91

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<tr>
<td>MATH 102</td>
<td>College Algebra</td>
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<td>PSYC 100</td>
<td>General Psychology</td>
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RELATED INSTRUCTION CREDITS: 15

GENERAL EDUCATION COURSES

A minimum of 10 credits from any two of the following:

- Visual, Literary and Performing Arts | 5
- Individual, Cultures and Societies | 5
- Natural World, the | 5
- Science & Mathematics | 5
- Business & Office | 5
- Supervision & Management | 5
- Technical Specialty course | 5

GENERAL EDUCATION CREDITS: 10

TOTAL PROGRAM CREDITS: 118

When the A.A.S. sequence is followed, students will have achieved NATEF GST Certification, NATEF Minor Certification and NATEF Major Certification as well.
Automatic Transmission/Transaxle Short-Term Certificate
Certificate covers disassemble, clean, inspect, overhaul (this will include replacement of bands, clutches, bushings, seals and various other components to make the transmission serviceable); and reassemble of automatic transmission. In addition the function and construction of each component, as well as their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit.

TECHNICAL SPECIALTY COURSES
AUT 118  Automatic Transmission Diagnosis and Service   .4
AUT 120  Advanced Automatic Transmission Service ........ 6
TOTAL PROGRAM CREDITS 10

Brakes Short-Term Certificate
Certificate covers brake theory, diagnosing brake problems, master cylinders, wheel cylinders, hydraulic valves, brake hoses, brake lines, brake shoes, brake drums, parking brakes as well as removal and installation of brakes from vehicles. In addition, the function and construction of each component, and their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit.

TECHNICAL SPECIALTY COURSES
AUT 126  Basic Brake Systems .......................... 3
AUT 127  Advanced Brake Systems ........................ 4
TOTAL PROGRAM CREDITS 7

Electrical/Electronic Systems Short-Term Certificate
Certificate covers safety, electrical theory, and types of current, types of circuits, semiconductors, magnetism, EMI suppression, circuit protection, reading electrical schematics, circuit defects and using test equipment. Components covered are starting systems, charging systems, as well as removal and installation of electrical components from vehicles. In addition the function and construction of each component, and their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit.

TECHNICAL SPECIALTY COURSES
AUT 102  Advanced Electrical Systems .................. 4
AUT 104  Automotive Electronics ........................ 3
AUT 106  Basic Power Accessories ........................ 3
TOTAL PROGRAM CREDITS 10

Engine Performance Short-Term Certificate
Certificate covers gasoline ignition and fuel systems. Included are distributor waste spark and coil on plug ignition systems also fuel pumps both electric and mechanical, fuel injection throttle body, port fuel sequential and gasoline direct injection systems. Certificate also covers the automotive engine computer, it’s multiple power and ground supplies, and how these affect the running of the vehicle. It covers the inputs and outputs of the PCM, how each contributes to the running of the engine, and how to diagnose each one.

TECHNICAL SPECIALTY COURSES
AUT 138  Advanced Drivability and Fuel Systems .......... 6
AUT 140  Engine Computers .................................. 4
AUT 142  Emission Controls and Diagnostic Test Equipment ........................................ 6
TOTAL PROGRAM CREDITS 16

Engine Repair Short-Term Certificate
Certificate covers Contents engine theory, diagnosing engine problems, engine lubrication, cooling systems, and removal and installation of engines from vehicles. In addition the function and construction of each component, and their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit. Other topics are automotive drivability theory, diagnosing drivability problems, as well as removal, repair and installation of drivability components from vehicles. In addition, the function and construction of each component, as well as their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit of study.

TECHNICAL SPECIALTY COURSES
AUT 128  Automotive Engine Diagnose/Remove and Replace ............................................. 4
AUT 130  Automotive Engine Rebuild ........................ 8
AUT 134  Introduction to Drivability ........................ 3
TOTAL PROGRAM CREDITS 15

Heating and Air Conditioning Short-Term Certificate
Certificate covers basic principles involving air conditioning and heating systems; troubleshooting and diagnosing of air conditioning and heating systems; removal and reinstalling of air conditioning and heating components in vehicles. In addition, the function and construction of each component, as well as their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit.

TECHNICAL SPECIALTY COURSES
AUT 116  Air Conditioning and Heating ................... 6
TOTAL PROGRAM CREDITS 6
Manual Drive Train and Axles Short-Term Certificate
Certificate covers power flow and principles involving manual transmissions, transfer cases and drive axles; troubleshooting and diagnosing manual transmissions, transfer cases and drive axles; removal of manual transmission, transfer cases and drive axles from vehicle; disassemble, clean, inspect, overhaul and reassemble of manual transmission, transfer cases and drive axles; reinstall manual transmission, transfer case and drive axle in vehicle. In addition the function and construction of each component, as well as their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit of study.

TECHNICAL SPECIALTY COURSES
AUT 112 Manual Transaxles and Clutches ........ 3
AUT 114 Manual Transmissions, Transfer Cases & Drive Axle ........ 3

TOTAL PROGRAM CREDITS 6

Steering and Suspension Short-Term Certificate
Certificate covers steering and suspension theory, diagnosing steering and suspension problems, chassis design, wheel bearings, steering and suspension components, as well as removal, repair and installation of steering and suspension components from vehicles. In addition the function and construction of each component, and their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit.

TECHNICAL SPECIALTY COURSES
AUT 122 Steering and Suspension ........... 4
AUT 124 Tires and Wheel Alignment ........... 4

TOTAL PROGRAM CREDITS 8

Business Information Technology
Technical Education
(206) 934-5394
This program prepares students for employment as specialists in information processing and office administrative assistant positions requiring computer literacy in word processing, spreadsheet and database business applications.

Certificate
PREREQUISITES
Enter program with 25 wpm keyboarding skills or either one of the following:
BUS 104 Keyboarding ......................... 3
BUS 106 Keyboarding/Skillbuilding .......... 3

REQUIRED COURSES
BUS 113 Diversity Issues in Business .......... 3
BUS 116 Business Math/Spreadsheets .......... 5
Following can be substituted:
MATH 102 College Algebra ................. 5

BUS 131 Integrated Communications I ........ 5
BUS 140 Customer Relations ................. 5
BUS 169 Using Computers in Business ....... 5
BUS 170 Information Technology I ........... 5
BUS 177 Spreadsheets ......................... 5
BUS 179 Word Processing ..................... 5
BUS 182 Information and Database Management .... 5
BUS 197 Work Experience/Business Occupations ...... 15
Credit range: 1-15; Total required credits: 3-5

TOTAL PROGRAM CREDITS 45-47

Associate of Applied Science Degree (A.A.S.)
Completion of Certificate Requirements: 45-47 credits

TECHNICAL SPECIALTY COURSES
ACCT 110 Introduction to Accounting/Bookkeeping I .... 5
ACCT 214 Accounting Systems ................. 5
BUS 113 Diversity Issues in Business .......... 3
BUS 116 Business Math/Spreadsheets .......... 5
BUS 131 Integrated Communications I ........ 5
BUS 140 Customer Relations ................. 5
BUS 169 Using Computers in Business ....... 5
BUS 170 Information Technology I ........... 5
Following can be substituted:
BUS 210 Business & Economic Statistics ....... 5
MATH 109 Elementary Statistics .............. 5

BUS 177 Spreadsheets ......................... 5
BUS 179 Word Processing ..................... 5
BUS 182 Information and Database Management .... 5
BUS 197 Work Experience/Business Occupations ...... 15
BUS 216 Professional Development .......... 5
BUS 230 Business Communications .......... 5
BUS 235 Oral Communications in Business ....... 5

RELATED INSTRUCTION
BUS& 101 Introduction to Business .......... 5
BUS& 201 Business Law ....................... 5
Following can be substituted:
BUS 200 Law and Society .................... 5
PSYC 240 Psychology of Human Relations .... 3
Following can be substituted:
PSYC& 100 General Psychology .......... 5
ELECTIVE COURSES
A minimum of 5 credits in the following:
Visual, Literary and Performing Arts ................... 5
Individual, Cultures and Societies .................... 5

TOTAL PROGRAM CREDITS 98-100

Associate of Applied Science - T Degree (A.A.S.-T)

PREREQUISITES
Enter program with 25 wpm keyboarding skills or either one of the following:
BUS 104 Keyboarding ..................... 3
BUS 106 Keyboarding/Skillbuilding ........... 3

TECHNICAL SPECIALTY COURSES
ACCT 110 Introduction to Accounting/Bookkeeping I .... 5
ACCT 214 Accounting Systems .................... 5
BUS & 101 Introduction to Business ............... 5
BUS 140 Customer Relations .................... 3
BUS 169 Using Computers in Business .......... 5
BUS 170 Information Technology I ................ 5

Following can be substituted:
BUS 210 Business and Economic Statistics ........ 5
MATH 109 Elementary Statistics ................... 5
BUS 179 Word Processing ....................... 5
BUS 182 Information and Database Management ..... 5
BUS 197 Work Experience/Business Occupations ... 15
Credit range: 1-15; Total required credits: 5
BUS & 201 Business Law ....................... 5

Following can be substituted:
BUS 200 Law and Society ..................... 5
BUS 216 Professional Development ............... 5
BUS 235 Oral Communications in Business ........ 5

TECHNICAL SPECIALTY CREDITS 73

RELATED INSTRUCTION
ENGL & 101 English Composition I .................. 5
ENGL & 102 Composition II ....................... 5
MATH 102 College Algebra ....................... 5
PSYC & 100 General Psychology .................. 5

RELATED INSTRUCTION CREDITS 73

ELECTIVES
5 credits from one of the following:
Visual, Literary and Performing Arts ................... 5
Individual, Cultures and Societies .................... 5

ELECTIVES CREDITS 5

TOTAL PROGRAM CREDITS 100-102

Office Assistant Short-Term Certificate
The Office Assistant Certificate is the first in a series of short term training certificates within the Business Information Technology department. This certificate prepares students for entry-level jobs as member services representatives, customer relations associates, office assistants and front desk agents.

TECHNICAL SPECIALTY COURSES
BUS 113 Diversity Issues in Business ............ 3
BUS 131 Integrated Communications I ............ 5
BUS 140 Customer Relations .................... 5
BUS 164 Career Development I ................... 2
BUS 169 Using Computers in Business .......... 5

TOTAL PROGRAM CREDITS 19

CAD Mechanical Concentration
(Computer-Aided Drafting)

Academic Programs
(206) 934-6600
This program provides training for employment in civil, architectural, and mechanical drafting positions. Instruction includes a combination of technical knowledge and skill development in areas such as orthographic projection, descriptive geometry, sections, dimensions, auxiliaries, materials and processes, presentation graphics, design models, and surveying, culminating in a comprehensive design/drafting project. Training in computer-aided design (CAD) is an integral part of the program.

Certificate

TECHNICAL SPECIALTY COURSES
INT 100 Overview of Manufacturing Processes .......... 3
TDR 105 Technical Employment Preparation ........... 1
TDR 121 Drafting Technology I ..................... 4
TDR 123 Drafting Technology II .................... 4
TDR 125 Drafting Technology III ................... 4
TDR 126 Space Geometry ......................... 4
TDR 129 Industrial Blueprint Reading ............... 3
TDR 131 Introduction to CAD 2-D .................. 4
TDR 133 Intermediate CAD 2-D .................... 4
TDR 135 AutoCAD 3-D Modeling .................... 4
TDR 179 CAD - Mechanical ....................... 4
TDR 197 Internship .................................. 5
Credit Range: 1-5; Total Required Credits: 3
TDR 228 CAD Sheet Metal/HVAC .................... 4
TDR 230 CAD 3-D Parametric Solid Design I ........ 4
TDR 236 Design Project Management ............... 4
TDR 280 Geometric Dimensioning & Tolerancing ... 4
**Computer Support Specialist**

Technical Education Division  
(206) 934-5365

**One-Year Certificate**

This is a one-year certificate which provides enough training for a student to be able to seek work in the IT field. This entry level certificate “dove tails” into the existing IT Systems Specialist A.A.S. degree program so that the student who wants to can seamlessly continue studies in this field.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>Beginning Computers</td>
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<tr>
<td>CTN 101</td>
<td>Introduction to Computing Technology</td>
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<tr>
<td>CTN 142</td>
<td>Operating Systems II</td>
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<tr>
<td>CTN 170</td>
<td>PC Hardware I</td>
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<tr>
<td>CTN 295</td>
<td>Research and Customer Service</td>
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**TECHNICAL ELECTIVES**

Minimum of 5 credits from the following:

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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CTN 173</td>
<td>Content Management Systems (CMS) Wordpres</td>
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</tr>
<tr>
<td>CTN 270</td>
<td>Local Area Networks I</td>
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</table>

**TOTAL PROGRAM CREDITS**  
40

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**Culinary Arts: Banquets & Catering**

Culinary Arts Department  
(206) 934-5344

Restaurant industry leaders recognize that the Culinary Arts program at South Seattle College provides outstanding culinary arts training. The program is a member of the prestigious International Association of Culinary Professionals and offers internships and training at partner institutions in Spain, Italy, Ireland, China and France. The department works closely with the hospitality industry to develop innovative, realistic programs that provide students with skills needed for successful employment.

Culinary Arts students learn the food production skills necessary to operate multifaceted food service operations on campus. A Food Court features a cafeteria with classic and contemporary menus, a short order grill, grab-and-go items, and a delicatessen. Two waited-service dining rooms, Café Alki and Alhadeff Grill, feature cooked-to-order menus with preparation typical of upscale restaurants in the Northwest. Food management classes train students in inventory control, operations analysis, purchasing, production, supervision, and personnel management. Students prepare for careers in dining room service, food production, and supervision for hotel, restaurant, catering and institutional food service operations.

The Culinary Arts and Pastry and Baking Arts programs require all uniforms, tools, and books which will be used throughout the program to be purchased by the first day of class. Check with the Culinary Arts Office for a complete list of uniform and tool kit options, prices, and for a list of required texts.

**Certificate**

**TECHNICAL SPECIALTY COURSES**

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<th>Course</th>
<th>Title</th>
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<tr>
<td>FSD 100</td>
<td>Health and Sanitation</td>
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</tr>
<tr>
<td>FSD 101</td>
<td>Orientation to Culinary Arts</td>
<td>1</td>
</tr>
<tr>
<td>FSD 160</td>
<td>Theory 1 - Culinary Fundamentals</td>
<td>5</td>
</tr>
<tr>
<td>FSD 165</td>
<td>Culinary 1</td>
<td>15</td>
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<tr>
<td>FSD 170</td>
<td>Theory 2 - Advanced Culinary Fundamentals</td>
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<td>FSD 190</td>
<td>Theory 4 - Restaurant Cost Controls</td>
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<td>FSD 195</td>
<td>Culinary 4</td>
<td>15</td>
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<tr>
<td>FSD 200</td>
<td>Theory 5 - Management Techniques</td>
<td>5</td>
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<tr>
<td>FSD 215</td>
<td>Banquets and Catering</td>
<td>15</td>
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<tr>
<td>HOS 203</td>
<td>Commercial Food Nutrition</td>
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**RELATED INSTRUCTION**

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<tr>
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<td>ENGL 105</td>
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<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
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<tr>
<td>MATH 110</td>
<td>Applied Math for Technicians</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
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**TOTAL PROGRAM CREDITS**  
119

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**Associate of Applied Science Degree (A.A.S.)**

**REQUIREMENTS**

Completion of Certificate Requirements: 119 credits

**RELATED INSTRUCTION**

Technical Specialty Courses

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGL 105</td>
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<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>FSD 100</td>
<td>Health and Sanitation</td>
<td>3</td>
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<tr>
<td>FSD 101</td>
<td>Orientation to Culinary</td>
<td>1</td>
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<tr>
<td>FSD 160</td>
<td>Theory 1 - Culinary Fundamentals</td>
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<tr>
<td>FSD 165</td>
<td>Culinary 1</td>
<td>15</td>
</tr>
<tr>
<td>FSD 170</td>
<td>Theory 2 - Advanced Culinary Fundamentals</td>
<td>5</td>
</tr>
</tbody>
</table>
FSD  175  Culinary 2  ............................  15
FSD  180  Theory 3 - Garde Manger/Advanced Cold Food  5
FSD  185  Culinary 3  ............................  15
FSD  190  Theory 4 - Restaurant Cost Controls  5
FSD  195  Culinary 4  ............................  15
FSD  200  Theory 5 - Management Techniques  5
FSD  215  Banquets and Catering  ............................  15
HOS  203  Commercial Food Nutrition  3
MATH  110  Applied Math for Technicians  3
PSYC  240  Psychology of Human Relations  3

REQUIREMENTS
To earn an A.A.S degree, students must maintain a minimum cumulative grade point average of 2.0.

ELECTIVES - GENERAL EDUCATION
A minimum of ten elective credits from at least two of the following:
Visual, Literary and Performing Arts  ............................  5
Individual, Cultures and Societies  ............................  5
Science & Mathematics  ............................  5
Business & Office  ............................  5
ELECTIVES CREDITS  10
TOTAL PROGRAM CREDITS  129

Associate of Applied Science - T Degree (A.A.S-T)

REQUIREMENTS
To earn an A.A.S-T degree, students must maintain a minimum cumulative grade point average of 2.0.

TECHNICAL SPECIALTY
FSD  100  Health and Sanitation  3
FSD  101  Orientation to Culinary Arts  1
FSD  160  Theory 1 - Culinary Fundamentals  5
FSD  165  Culinary 1  15
FSD  170  Theory 2 - Advanced Culinary Fundamentals  5
FSD  175  Culinary 2  15
FSD  180  Theory 3 - Garde Manger/Advanced Cold Food  5
FSD  185  Culinary 3  15
FSD  190  Theory 4 - Restaurant Cost Controls  5
FSD  195  Culinary 4  15
FSD  200  Theory 5 - Management Techniques  5
FSD  215  Banquets and Catering  15
HOS  203  Commercial Food Nutrition  3
TECHNICAL SPECIALTY CREDITS  107

RELATED INSTRUCTION
ENGL  101  English Composition I  5
ENGL  102  Composition II  5
MATH  102  College Algebra  5
PSYC  100  General Psychology  5
RELATED INSTRUCTION CREDITS  20

TOTAL PROGRAM CREDITS  137

Culinary Arts: Pastry & Baking Arts
The Pastry and Specialty Baking program covers basic and advanced skills in pastry and specialty baking and decorating. It includes cakes and Danish; French and Swiss pastries; fancy desserts; confections; tortes; fillings; specialty breads; decorating; and sugar and chocolate work. Graduates are prepared for pastry positions in hotels, fine restaurants, clubs, and a variety of positions in retail and wholesale bakeries.

Certificate

TECHNICAL SPECIALTY COURSES
FSD  100  Health and Sanitation  3
HOS  203  Commercial Food Nutrition  3
PST  101  Pastry and Baking Orientation  5
PST  102  Introduction to Baking Management  5
PST  103  Decoration Theory 1  4
PST  104  Decoration Theory 2  4
PST  105  Decoration Theory 3  4
PST  111  Baking 1  15
PST  112  Pastry 1  15
PST  113  Baking 2  15
PST  211  Pastry 2  15
PST  212  Pastry 3  15
PST  213  Pastry 4  15

RELATED INSTRUCTION
ENGL  105  Applied Composition  3
ENGL  106  Technical Writing  3
MATH  110  Applied Math for Technicians  3
PSYC  240  Psychology of Human Relations  3
TOTAL PROGRAM CREDITS  130

Associate of Applied Science Degree (A.A.S)
The Pastry and Specialty Baking program covers basic and advanced skills in pastry and specialty baking and decorating. It includes cakes and Danish; French and Swiss pastries; fancy desserts; confections; tortes; fillings; specialty breads; decorating; and sugar and chocolate work. Graduates are prepared for pastry positions in hotels, fine restaurants, clubs, and a variety of positions in retail and wholesale bakeries.
REQUIREMENTS

Requirements
- maintain a minimum cumulative grade point average of 2.0.
- complete selected Culinary Arts certificate requirements (130 credits)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>FSD</td>
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<tr>
<td>HOS</td>
<td>Commercial Food Nutrition</td>
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<td>PST</td>
<td>Pastry and Baking Orientation</td>
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<td>PST</td>
<td>Introduction to Baking Management</td>
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<tr>
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<td>Decoration Theory 1</td>
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TECHNICAL SPECIALTY CREDITS 118

RELATED INSTRUCTION

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<th>Title</th>
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<td>ENGL 102</td>
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<td>MATH 102</td>
<td>College Algebra</td>
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<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
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</table>

RELATED INSTRUCTION CREDITS 20

ELECTIVES

Select 10 credits from the following:
- Visual, Literary and Performing Arts            5
- Individual, Cultures and Societies             5
- Science & Mathematics                          5
- Business & Office                              5

ELECTIVES CREDITS 10

TOTAL PROGRAM CREDITS 140

Associate of Applied Science - T Degree (A.A.S.-T)
The Pastry and Specialty Baking program covers basic and advanced skills in pastry and specialty baking and decorating. It includes cakes and Danish; French and Swiss pastries; fancy desserts; confections; tortes; fillings; specialty breads; decorating; and sugar and chocolate work. Graduates are prepared for pastry positions in hotels, fine restaurants, clubs, and a variety of positions in retail and wholesale bakeries.

REQUIREMENTS

To earn an A.A.S.-T degree in Pastry and Baking Arts, students must maintain a minimum cumulative grade point average of 2.0.

TECHNICAL SPECIALTY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>FSD</td>
<td>Health and Sanitation</td>
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</table>

Culinary Arts: Restaurant Production
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Students prepare for careers in dining room service, food production, and supervision for hotel, restaurant, catering, and institutional food service operations.

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Certificate

TECHNICAL SPECIALTY COURSES

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<td>FSD 101</td>
<td>Orientation to Culinary Arts</td>
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<td>FSD 160</td>
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<td>FSD 165</td>
<td>Culinary 1</td>
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<td>FSD 170</td>
<td>Theory 2 - Advanced Culinary Fundamentals</td>
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<td>FSD 175</td>
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<td>FSD 205</td>
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<td>HOS 203</td>
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RELATED INSTRUCTION

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<td>MATH 110</td>
<td>Applied Math for Technicians</td>
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<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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TOTAL PROGRAM CREDITS 119

Associate of Applied Science Degree (A.A.S.)

REQUIREMENTS
- Completion of Certificate Requirements: 119 credits
- Students must maintain a minimum cumulative grade point average of 2.0.

TECHNICAL SPECIALTY COURSES

<table>
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<td>FSD 185</td>
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TECHNICAL SPECIALTY CREDITS 107

RELATED INSTRUCTION

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RELATED INSTRUCTION CREDITS 20

ELECTIVES

A minimum of 10 elective credits from at least two of the following:
- Visual, Literary and Performing Arts. 5
- Individual, Cultures and Societies. 5
- Science & Mathematics. 5
- Business & Office. 5

ELECTIVES CREDITS 10

TOTAL PROGRAM CREDITS 119

Associate of Applied Science - T Degree (A.A.S.-T)

REQUIREMENTS
- Completion of Certificate Requirements: 119 credits
- Students must maintain a minimum cumulative grade point average of 2.0.

TECHNICAL SPECIALTY

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>FSD 165</td>
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<td>FSD 170</td>
<td>Theory 2 - Advanced Culinary Fundamentals</td>
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<td>Theory 4 - Restaurant Cost Controls</td>
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TECHNICAL SPECIALTY CREDITS 107

RELATED INSTRUCTION

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<td>PSYC&amp; 100</td>
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RELATED INSTRUCTION CREDITS 20

ELECTIVES

A minimum of ten elective credits from at least two of the following:
- Visual, Literary and Performing Arts. 5
- Lab Science. 5
- Business & Office. 5

ELECTIVES CREDITS 10

TOTAL PROGRAM CREDITS 119
Diesel & Heavy Equipment Technician

Diesel Technology Training Center
(206) 934-5391

Graduates of this program find career opportunities in trucking, heavy equipment, construction, industrial machinery, marine diesel, and materials handling. More advanced opportunities may be available as shop service representatives, service managers, foremen and construction equipment superintendents.

The certificate program can be completed in six quarters. Advanced standing may be granted for work experience and/or related training. The Associate of Applied Science degree builds upon previously acquired knowledge and skills to develop leadership and communication abilities.

There are additional costs for books and supplies. Students are responsible for getting required tools before instruction begins.

Certificate

TECHNICAL SPECIALTY COURSES

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<th>Course</th>
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<td>8</td>
</tr>
<tr>
<td>HDM 110</td>
<td>Introduction to Electrical</td>
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<tr>
<td>HDM 120</td>
<td>Tires, Alignment, Steering and Suspension</td>
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RELATED INSTRUCTION

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TOTAL PROGRAM CREDITS 72

Associate of Applied Science Degree (A.A.S.)

REQUIREMENTS

Completion of Certificate Requirements: 72 credits

TECHNICAL SPECIALTY COURSES

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<td>HDM 125</td>
<td>Hydraulic and Air Brakes</td>
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<td>HDM 130</td>
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<td>HDM 135</td>
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<td>HDM 140</td>
<td>Heating, Ventilation and Air Conditioning</td>
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<td>Gasoline Engines</td>
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<td>Diesel Engine Diagnos/Remove and Replace</td>
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<td>HDM 155</td>
<td>Diesel Engine Rebuild</td>
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<td>HDM 171</td>
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<tr>
<td>HDM 197</td>
<td>Internship - Heavy Duty Diesel</td>
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Credit range: 1-7; Total required credits: 1-6
Requires program advising. Please see a program advisor or counselor for details.

MVM 101 Introduction to Motor Vehicle Maint Technology I 8

TECHNICAL ELECTIVES

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TOTAL PROGRAM CREDITS 121-126

Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES

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<tr>
<td>HDM 140</td>
<td>Heating, Ventilation and Air Conditioning</td>
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<td>HDM 145</td>
<td>Gasoline Engines</td>
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<td>HDM 171</td>
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<tr>
<td>HDM 197</td>
<td>Internship - Heavy Duty Diesel</td>
<td>7</td>
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Credit range: 1-7; Total required credits: 1-6
Requires program advising. Please see a program advisor or counselor for details.

MVM 101 Introduction to Motor Vehicle Maint Technology 8

RELATED INSTRUCTION

Minimum of 10 credits from any two of the following:

<table>
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<tr>
<th>Course</th>
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<tr>
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<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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TOTAL PROGRAM CREDITS 10
Engineering Graphics and Design Technology

Academic Programs
(206) 934-6600

This program provides training for employment in civil, architectural and mechanical drafting positions. Instruction includes a combination of technical knowledge and skill development in areas such as orthographic projection, descriptive geometry, sections, dimensions, auxiliaries, materials and processes, presentation graphics, design models and surveying, culminating in a comprehensive design/drafting project. Training in computer-aided design (CAD) is an integral part of the program.

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

<table>
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<th>Course</th>
<th>Description</th>
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<td>INT 100</td>
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<td>Creative Technical Problem Solving</td>
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<td>TDR 121</td>
<td>Drafting Technology I</td>
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<td>TDR 123</td>
<td>Drafting Technology II</td>
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<td>Drafting Technology III</td>
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<tr>
<td>TDR 126</td>
<td>Space Geometry</td>
<td>4</td>
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<tr>
<td>TDR 129</td>
<td>Industrial Blueprint Reading</td>
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<td>TDR 131</td>
<td>Introduction to CAD 2-D</td>
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<td>TDR 133</td>
<td>Intermediate CAD 2-D</td>
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<td>TDR 135</td>
<td>AutoCAD 3-D Modeling</td>
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<td>TDR 169</td>
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<td>Design Project II</td>
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<td>Applied Mechanics II</td>
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TECHNICAL SPECIALTY CREDITS: 73

ELECTIVES

Students must select from courses that support their overall technical objectives.

A minimum of 5 credits in two of the following areas:
Visual, Literary and Performing Arts
Individual, Cultures and Societies
Natural World, the

ELECTIVES CREDITS: 6

TOTAL PROGRAM CREDITS: 110

Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
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<td>AutoCAD 3-D Modeling</td>
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TECHNICAL SPECIALTY CREDITS: 44

ELECTIVES

Students must select from courses that support their overall technical objectives.

A minimum of 5 credits in two of the following areas:
Visual, Literary and Performing Arts
Individual, Cultures and Societies
Natural World, the

ELECTIVES CREDITS: 6

TOTAL PROGRAM CREDITS: 116
Engineering Technology

Academic Programs
(206) 934-6600

Engineering technicians play a key role in implementing designed solutions to technical problems. These tasks are accomplished with a solid background in mathematics, physics, and applied engineering, as well as skills in problem-solving and creative thinking. Successful graduates of the engineering technology program are qualified to seek employment as engineering technicians or may transfer to a four-year college to pursue a degree in Engineering or Engineering Technology.

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

**ENGR 110** Engineering Orientation ........................................... 2
**ENGR 142** Computer Programming ........................................... 5
**ENGR& 214** Statics .......................................................... 5
**ENGR& 225** Mechanics of Materials .......................................... 5
**ENGR 298** Special Topics .................................................... 5
Credit range: 1-5
Total required internship credits: 4

**ENGR 299** Independent Study ................................................ 5
Credit range: 1-5
Total required internship credits: 4

**INT 100** Overview of Manufacturing Processes ......................... 3

**TDR 126** Space Geometry ..................................................... 4
**TDR 131** Introduction to CAD 2-D .......................................... 4
**TDR 133** Intermediate CAD 2-D .......................................... 4
**TDR 236** Design Project Management ........................................ 1
**TDR 237** Design Project I ..................................................... 2
**TDR 238** Design Project II ..................................................... 2

TECHNICAL SPECIALTY CREDITS 47

RELATED INSTRUCTION

**ENGL& 101** English Composition I ........................................... 5
**MATH& 141** Precalculus I .................................................... 5
**MATH& 142** Precalculus II .................................................. 5
**PSYC& 100** General Psychology ............................................ 5

RELATED INSTRUCTION CREDITS 36

ELECTIVES

A minimum of 6 credits in the following areas:

**Visual, Literary and Performing Arts** ..................................... 5
**Individual, Cultures and Societies** ....................................... 5
**Natural World, the** ......................................................... 5

ELECTIVES CREDITS 6

TOTAL PROGRAM CREDITS 95

TOOL DESIGN CREDITS
Home Care Aide Short-Term Certificate

**Workforce Education**  
(206) 934-5835

This is a full-time course designed to prepare students for success in passing the State of Washington Department of Health Home Care Aide examination, and as a step in continuing to Nursing Assistant Certified and other nursing or health-related courses. It covers the 85 hours of learning and skills objectives mandated by Washington State for Home Care Aide. It also includes context-related basic skills, such as reading and study strategies, math, and oral communication.

**TECHNICAL SPECIALTY COURSES**

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<th>Course</th>
<th>Credits</th>
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**TOTAL PROGRAM CREDITS**  
15

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Industrial Maintenance Mechanic (AJAC)

**Apprenticeship Division**  
(206) 934-5387

The Industrial Maintenance Mechanic Program is an Apprenticeship Program offered through the Aerospace Joint Apprenticeship Committee at the Georgetown Campus. This program is a 2-year Aerospace/aircraft oriented program. Students must have successfully completed the first 2 years of aircraft mechanic airframe machinist program and have their FAA airframe license. For more information please contact the Aerospace Joint Apprenticeship Committee at (206) 764-7940 or info@AJACtraining.org.

**Certificate**

**TECHNICAL SPECIALTY COURSES**

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**ON-THE-JOB TRAINING CREDITS**  
10

**TOTAL PROGRAM CREDITS**  
70

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Associate of Applied Science - T Degree (A.A.S.-T)

**TECHNICAL SPECIALTY COURSES**

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</thead>
<tbody>
<tr>
<td>IMMA 101  Mechanical Drawings AJAC</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 102  Lifting &amp; Rigging AJAC</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 103  Precision Machining</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 121  Welding for Maintenance Technicians</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 122  Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 123  Machine Automation Theory</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 201  Math for Maintenance Technicians</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 202  Maintenance Machining</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 203  Mechanical Systems</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 222  Materials Processes &amp; References</td>
<td>5</td>
</tr>
<tr>
<td>IMMA 223  Mechatronics Capstone</td>
<td>5</td>
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</tbody>
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**TOTAL PROGRAM CREDITS**  
70

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 235  Oral Communications in Business</td>
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*Following can be substituted:*

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CMST&amp;220  Public Speaking</td>
<td>5</td>
</tr>
<tr>
<td>ENGL&amp; 101  English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>MATH&amp; 107  Math in Society</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp; 100  General Psychology</td>
<td>5</td>
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</tbody>
</table>

*Following can be substituted:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC&amp; 101  Intro to Sociology</td>
<td>5</td>
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</tbody>
</table>

**TOTAL PROGRAM CREDITS**  
90

---

Industrial Manufacturing & Transportation

**Flagging (non-credit) Short-Term Certificate**

**Georgetown Campus**  
(206) 934-5350

The course covers all the material and work practices which a person needs in order to qualify as an entry level licensed flagger in the State of Washington. Federal, State and Local Guidelines and the Manual on Uniform Traffic Control Devices (MUTCD) are also covered.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS 123</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS**  
70
Industrial Manufacturing Advanced Short-Term Certificate
Georgetown Campus
(206) 934-7914

A short-term training program primarily for entry-level and reentering professionals wanting to update and expand their skill set in the world of diversified and advanced manufacturing. In recent years, the manufacturing industry has been a staple, living wage job for many residents in the Puget Sound. With manufacturing on the rise this short-term professional technical certificate supports introductory skill building in new and traditional manufacturing techniques including industry certifications in: Electronics, Blueprint Writing, CPR/First Aid, Flagging, OSHA 30, LEAN Manufacturing, Composites and Welding.

Graduates have the opportunity to be hired directly by employers that support the program and interview candidates. The result from this program is a skilled pipeline of entry level workers to support the growing number of industrial manufacturing jobs in the region. The Academy provides students a pathway to enter into an apprenticeship or continue their education with the Seattle College District. Credits earned in this program may transfer into other industrial educational pathways at South Seattle College or in the district. Successful completion of the Manufacturing Academy may satisfy the minimum requirements for entry into the Aerospace Joint Apprenticeship Council program.

This program is one of two certificates that make up the Industrial Manufacturing Academy.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 112</td>
<td>Manufacturing Tools and Trades</td>
<td>5</td>
</tr>
<tr>
<td>INT 115</td>
<td>Introduction to Lean Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>INT 165</td>
<td>OSHA 30 General Safety</td>
<td>3</td>
</tr>
<tr>
<td>INT 180</td>
<td>Introduction to Composites</td>
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<tr>
<td>TOTAL PROGRAM CREDITS</td>
<td></td>
<td>14</td>
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</tbody>
</table>

Industrial Manufacturing Basics Short-Term Certificate
Georgetown Campus
(206) 934-5350

A short-term training program primarily for entry-level and reentering professionals wanting to update and expand their skill set in the world of diversified and advanced manufacturing. In recent years, the manufacturing industry has been a staple, living wage job for many residents in the Puget Sound. With manufacturing on the rise this short-term professional technical certificate supports introductory skill building in new and traditional manufacturing techniques including industry certifications in: Electronics, Blueprint Writing, CPR/First Aid, Flagging, OSHA 30, LEAN Manufacturing, Composites and Welding.

Graduates have the opportunity to be hired directly by employers that support the program and interview candidates. The result from this program is a skilled pipeline of entry level workers to support the growing number of industrial manufacturing jobs in the region. The Academy provides students a pathway to enter into an apprenticeship or continue their education with the Seattle College District. Credits earned in this program may transfer into other industrial educational pathways at South Seattle College or in the district. Successful completion of the Manufacturing Academy may satisfy the minimum requirements for entry into the Aerospace Joint Apprenticeship Council program.

This program is one of two certificates that make up the Industrial Manufacturing Academy.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HDM 171</td>
<td>Lift Truck Operator</td>
<td>2</td>
</tr>
<tr>
<td>IFS 100</td>
<td>Industrial First Aid and Safety</td>
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<tr>
<td>INT 101</td>
<td>Manufacturing Basics I</td>
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</tr>
<tr>
<td>INT 108</td>
<td>Intro to Blueprint Reading for Construction</td>
<td>3</td>
</tr>
<tr>
<td>INT 109</td>
<td>Flagging and Traffic Control</td>
<td>1</td>
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<tr>
<td>MATH 110</td>
<td>Applied Math for Technicians</td>
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<tr>
<td>TOTAL PROGRAM CREDITS</td>
<td></td>
<td>14</td>
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</tbody>
</table>

Industrial Vehicles Basics Short-Term Certificate
Georgetown Campus
(206) 934-5350

This certificate is designed to prepare students to enter the warehouse and logistics industries and to prepare students for Washington State’s Commercial Driver’s License (CDL) knowledge examination. With a growing need in logistics and transportation and the graying of the local workforce, employers and partners require a qualified pipeline of students prepared to enter the workplace. Industry-recognized credentials, job preparation, and test preparation comprise the course.

CERTIFICATE COMPLETION OUTCOMES:
- OSHA 10 certification
- Flagging and Traffic Control certification
- Forklift and Scissorlift certifications
- Prepared to take Washington State’s CDL knowledge examination

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDM 171</td>
<td>Lift Truck Operator</td>
<td>2</td>
</tr>
<tr>
<td>INT 109</td>
<td>Flagging and Traffic Control</td>
<td>1</td>
</tr>
<tr>
<td>INT 160</td>
<td>Introduction to Safety and Health OSHA 10</td>
<td>1</td>
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<tr>
<td>IVP 100</td>
<td>CDL Knowledge Test Preparation</td>
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</tr>
<tr>
<td>WET 100</td>
<td>Employment and Education Preparation</td>
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</tr>
<tr>
<td>TOTAL PROGRAM CREDITS</td>
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<td>7</td>
</tr>
</tbody>
</table>
Industrial Vehicles Advanced Short-Term Certificate
Georgetown Campus
(206) 934-5350

This certificate is designed to pass their Washington State’s Commercial Driver’s License (CDL) class A driving examination. With a growing need in logistics and transportation, employers and partners require a qualified pipeline of students prepared to enter the workplace. Nationally, the American Trucking Association estimates a current shortage of 35 to 40 thousand drivers, projected to reach 240,000 by 2022. According to EMSI, from 2015 to 2020 there will be 985 annual openings in Washington for tractor-trailer truck drivers. This program will prepare students for industry with a focus on safety, trip inspection, street driving, and test preparation.

CERTIFICATE OUTCOMES

- Be prepared to take Washington State’s Commercial Driver’s License Class A driving test.
- Drive class A vehicles on the street and highway.
- Couple and uncouple a tractor from a trailer.
- Chain up a commercial vehicle.
- Back up class A vehicle in a straight line, angled, and blind sided.
- Scale loads.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVP 101</td>
<td>Fundamentals of Commercial Truck Driving</td>
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</tr>
<tr>
<td>IVP 102</td>
<td>Class A Street Driving</td>
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</tr>
<tr>
<td>IVP 103</td>
<td>Class A Backing and Maneuvering</td>
<td>2</td>
</tr>
<tr>
<td>IVP 104</td>
<td>Class A Trip Inspection</td>
<td>2</td>
</tr>
<tr>
<td>IVP 105</td>
<td>Class A Lab Range and Observation</td>
<td>7</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 19

Introduction to Green Manufacturing Short-Term Certificate
Georgetown Campus
(206) 934-5350

The Introduction to Green Manufacturing Processes is a work-training program designed to give adults training, certifications and internship experience in Green manufacturing. Graduates are trained to be competitive for entry level employment in manufacturing and the program is designed to provide a framework for instruction in the following topics.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMF 100</td>
<td>Introduction to Green Manufacturing Processes</td>
<td>15</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 15

Logistics, Transportation and Supply Chain Management Basics Short-Term Certificate
Professional Technical
(206) 934-5350

This is a 19 Credit Short Term Training program is designed for working adults who are interested in the logistics industry. Initially classes will be offered at night with an online component. The internship class is not required to complete the program.

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG 235</td>
<td>Introduction to Transport and Logistics</td>
<td>3</td>
</tr>
<tr>
<td>LOG 236</td>
<td>Introduction to Airport and Sea Port Operations</td>
<td>4</td>
</tr>
<tr>
<td>LOG 237</td>
<td>Supply Chain Management</td>
<td>4</td>
</tr>
<tr>
<td>LOG 238</td>
<td>Domestic and International Freight Operations</td>
<td>4</td>
</tr>
<tr>
<td>LOG 239</td>
<td>Transportation and Border Security</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 19

IT Systems Specialist
Technical Education Division
(206) 934-5365

The IT Systems Specialist program is for students who enjoy solving PC hardware, operating systems, common applications, and network problems. Students learn to diagnose, document and correct problems. Graduates can continue at South to earn the Network Administration A.A.S. or A.A.S.-T degree and/or can seek employment as technical support personnel in retail stores, communication companies, IT support/installation companies, education institutions, health care facilities and others.

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 100</td>
<td>Beginning Computers</td>
<td>5</td>
</tr>
<tr>
<td>CTN 101</td>
<td>Introduction to Computing Technology</td>
<td>5</td>
</tr>
<tr>
<td>CTN 120</td>
<td>Databases I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 131</td>
<td>Introduction to Computer Programming</td>
<td>5</td>
</tr>
<tr>
<td>CTN 142</td>
<td>Operating Systems II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 143</td>
<td>Operating Systems III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 160</td>
<td>Web Production I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 170</td>
<td>PC Hardware I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 171</td>
<td>PC Hardware II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 197</td>
<td>Computing Internship</td>
<td>15</td>
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</table>

Credit range: 1-15
Total internship credits required: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>CTN 270</td>
<td>Local Area Networks I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 274</td>
<td>Local Area Networks III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 277</td>
<td>Network Security I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 278</td>
<td>Wireless Communication I</td>
<td>3</td>
</tr>
<tr>
<td>CTN 295</td>
<td>Research and Customer Service</td>
<td>5</td>
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TECHNICAL SPECIALTY CREDITS 83
### TECHNICAL ELECTIVES

Of the 30 technical elective credits required, minimum of 10 credits must be selected from the following (or other approved computer-related coursework).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CTN 121</td>
<td>Database II</td>
<td>5</td>
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<td>CTN 224</td>
<td>Web Server Configuration and Management</td>
<td>5</td>
</tr>
<tr>
<td>CTN 276</td>
<td>Virtualization and the Cloud 1</td>
<td>5</td>
</tr>
<tr>
<td>CTN 281</td>
<td>Security+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>CTN 282</td>
<td>Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 283</td>
<td>Cisco II</td>
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**TECHNICAL ELECTIVES CREDITS**: 30

### RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
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</tr>
<tr>
<td>BUS 169</td>
<td>Using Computers in Business</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
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</tr>
<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
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<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
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**RELATED INSTRUCTION CREDITS**: 19

### GENERAL EDUCATION ELECTIVES

Select 5 credits from one of the following:

- Visual, Literary and Performing Arts: 5
- Individual, Cultures and Societies: 5

**GENERAL EDUCATION ELECTIVES CREDITS**: 5

**TOTAL PROGRAM CREDITS**: 111

---

### Associate of Applied Science - T Degree (A.A.S.-T)

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 100</td>
<td>Beginning Computers</td>
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</tr>
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<td>5</td>
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<td>PC Hardware II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 197</td>
<td>Computing Internship</td>
<td>15</td>
</tr>
</tbody>
</table>

**Credit range: 1-15**

Total required internship credits: 3

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
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<td>Research and Customer Service</td>
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</tr>
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</table>

---

### TECHNICAL ELECTIVES

Minimum of 10 credits must be selected from the following (or other approved computer-related coursework).

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<tr>
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<tbody>
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<tr>
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<td>5</td>
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### RELATED INSTRUCTION

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>English Composition I</td>
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</tr>
<tr>
<td>MATH 102</td>
<td>College Algebra</td>
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<tr>
<td>PHYS 114</td>
<td>General Phys I W/Lab</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 100</td>
<td>General Psychology</td>
<td>5</td>
</tr>
</tbody>
</table>

### GENERAL EDUCATION ELECTIVES

Minimum of 5 credits from one of the following:

- Visual, Literary and Performing Arts: 5
- Individual, Cultures and Societies: 5

**TOTAL PROGRAM CREDITS**: 111

---

### Landscape Horticulture

**Technical Education**

**Phone**: (206) 934-5394

The Landscape Horticulture program offers training in landscape design and construction, greenhouse and nursery operations, irrigation systems, plant problem diagnostics, pruning, plant identification, soil science and much more. Students may choose between a certificate program, an Associate of Applied Science degree or individual courses to meet specific needs. Graduates typically find employment in landscape construction firms, pest management services, tree care companies, garden centers, wholesale nurseries, park maintenance departments and greenhouses. There are many self-employment opportunities in this field.

#### One-Year Certificate

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHO 100</td>
<td>Careers in Horticulture</td>
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<tr>
<td>LHO 110</td>
<td>Weed and Integrated Pest Management</td>
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<tr>
<td>LHO 115</td>
<td>Fall Plant Identification</td>
<td>4</td>
</tr>
<tr>
<td>LHO 116</td>
<td>Winter Plant Identification</td>
<td>4</td>
</tr>
<tr>
<td>LHO 117</td>
<td>Spring Plant Identification</td>
<td>4</td>
</tr>
<tr>
<td>LHO 139</td>
<td>Landscape Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>LHO 140</td>
<td>Intro to Arboriculture</td>
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<tr>
<td>LHO 150</td>
<td>Horticulture Science</td>
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</tr>
<tr>
<td>LHO 152</td>
<td>Soils</td>
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<tr>
<td>LHO 155</td>
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<tr>
<td>LHO 197</td>
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<tr>
<td>English Composition</td>
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<tr>
<td>Math for Technicians</td>
<td>3</td>
<td></td>
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<tr>
<td>Psychology of Human Relations</td>
<td>3</td>
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<tr>
<td>TOTAL PROGRAM CREDITS</td>
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<td></td>
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</tbody>
</table>

### Associate of Applied Science Degree (A.A.S.)

#### Track A – Design and Construction Installation

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### Associate of Applied Science - T Degree (A.A.S.-T)

#### Track A – Design and Construction Installation

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### Associate of Applied Science - T Degree (A.A.S.-T)

#### Track B – Sustainable Land Management

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**TOTAL PROGRAM CREDITS** 90

### Associate of Applied Science Degree (A.A.S.)

#### Track C – Horticultural Studies

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**TOTAL PROGRAM CREDITS** 90

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**SOUTHERN COLLEGE**

**2016-2018 CATALOG**

---

**Professional/Technical Programs**

---

**Associate of Applied Science Degree (A.A.S.-T)**

**Track C – Horticultural Studies**

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**TOTAL PROGRAM CREDITS** 90
### Professional/Technical Programs

**Professional/Technical Programs South**

#### 2016-2018 CATALOG

**SEATTLE COLLEGES**

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**RELATED INSTRUCTION**

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A minimum of 10 credits from at least two of these categories: Business & Office; Science & Mathematics; Visual, Literary, & Performing Arts; or Individuals, Cultures & Society.

**TOTAL PROGRAM CREDITS** 101

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### Integrated Pest Management Short-Term Certificate

**Landscape Horticulture**

(206) 934-6827

A short-term training program primarily for horticultural professionals wanting to update and expand their skill set. In the broad sense, integrated pest management pertains to all pests of our landscapes, whether they are insect, fungal, bacterial, or weed pests. Knowledge of integrated pest management principles and practices is especially beneficial to those who manage landscapes and those who consult about landscape problems. Skill at diagnosing plant problems and developing integrated strategies for managing those problems is a valuable asset, whether you are self-employed or an employee. Completing this certificate will help you prepare for the Washington State Department of Agriculture pesticide license exams.

**TECHNICAL SPECIALTY COURSES**

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<td>LHO 210</td>
<td>Plant Problem Diagnostics</td>
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**TOTAL PROGRAM CREDITS** 9

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### Landscape Construction Short-Term Certificate

**Landscape Horticulture**

(206) 934-6827

This is a short-term training program for Landscape professionals wanting to update and expand their skill set or students interested in the understanding and implementation of landscape construction projects. This will be helpful to the students to gain skills to start their own business or create a valuable skills for a future employer.

**TECHNICAL SPECIALTY COURSES**

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**TOTAL PROGRAM CREDITS** 11

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### Landscape Construction Crew Leader Short-Term Certificate

**Landscape Horticulture**

(206) 934-6827

A short-term training program for Landscape Professionals wanting to update and expand their skill set or students interesting in the understanding and supervising the implementation of landscape construction projects. This will be helpful to the professional Landscape Contractor who wants to bid and install public, commercial or residential landscapes projects. This will be helpful to the students to gain skills to start their own business or create a valuable skills for a future employer.

**TECHNICAL SPECIALTY COURSES**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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T.A./ Supervisor Training for:

LHO 272 Landscape Construction Project - Fall

**OR**

LHO 273 Landscape Construction Project - Spring

**TOTAL PROGRAM CREDITS** 19

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### Landscape Horticulture Ecological Restoration Short-Term Certificate

**Landscape Horticulture**

(206) 934-6827

A short-term training program primarily for horticultural professionals wanting to update and expand their skill set. In recent years, there has been an increasing number of projects involving the restoration of native vegetation and ecosystem health. This could be helpful to professional horticulturists who want to bid on public projects, create native plant landscapes for private property owners, or install native plant gardens in residential landscapes.
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</tbody>
</table>

**Landscape Horticulture Irrigation Technician Short-Term Certificate**

Landscape Horticulture

(206) 934-6827

This is a short-term training program for landscape and horticultural professionals wanting to update and expand their skill set or students interested in water resource management. Water resource management requires understanding for managing programs designed to protect landscapes, habitats and natural resources. This will be helpful to the professional Landscape Contractor who wants to bid on public, commercial or residential landscapes projects that include irrigation systems.

Completing the certificate would prepare one for design, installation, operation, maintenance, management, and service for landscape, and irrigation systems.

<table>
<thead>
<tr>
<th>Technical Specialty Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHO 135 Introduction to Drainage &amp; Irrigation Systems</td>
<td>3</td>
</tr>
<tr>
<td>LHO 197 Internship</td>
<td>2</td>
</tr>
<tr>
<td>LHO 236 Advanced Irrigation System Design</td>
<td>5</td>
</tr>
<tr>
<td>LHO 237 Advanced Irrigation Diagnostics and Repair</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Program Credits</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Urban Forestry Short-Term Certificate**

Landscape Horticulture

(206) 934-6827

A short-term training program primarily for horticultural professionals wanting to update and expand their skill set. Urban forestry is about the cultivation and maintenance of trees in urban areas. This includes individual landscape trees, street trees, park trees, and trees in natural areas. Knowledge in urban forestry can be valuable to those who work in parks, public gardens, residential landscape design/construction/maintenance, commercial landscape management, and street tree maintenance. Completing this certificate will help one prepare for the International Society of Arboriculture’s “Certified Arborist” exam.

<table>
<thead>
<tr>
<th>Technical Specialty Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHO 140 Introduction to Arboriculture</td>
<td>3</td>
</tr>
<tr>
<td>LHO 155 Pruning</td>
<td>3</td>
</tr>
<tr>
<td>LHO 210 Plant Problem Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Program Credits</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Maintenance and Light Repair (MLR)**

Automotive Technology Training Center

(206) 934-5391

The automotive technology program qualifies students for employment in auto maintenance and related fields. Career opportunities include advancement to auto shop supervisor, service department head, auto service advisor, sales representative, and shop owner.

Meets NATEF General Service Technician (GST) requirements. Students completing this program are qualified for entry-level work in the automotive industry.

**1 Year Certificate**

<table>
<thead>
<tr>
<th>Technical Specialty Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 100 Introduction to Electricity</td>
<td>6</td>
</tr>
<tr>
<td>AUT 122 Steering and Suspension</td>
<td>4</td>
</tr>
<tr>
<td>AUT 124 Tires and Wheel Alignment</td>
<td>4</td>
</tr>
<tr>
<td>AUT 126 Basic Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 127 Advanced Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUT 128 Automotive Engine Diagnose/Remove and Replace</td>
<td>4</td>
</tr>
<tr>
<td>AUT 130 Automotive Engine Rebuild</td>
<td>8</td>
</tr>
<tr>
<td>AUT 134 Introduction to Drivability</td>
<td>3</td>
</tr>
<tr>
<td>MVM 100 Introduction to Automotive Technology I</td>
<td>3</td>
</tr>
<tr>
<td>MVM 102 Introduction to Automotive Technology II</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Specialty Credits</strong></td>
<td><strong>45</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Related Instruction</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 105 Applied Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110 Applied Math for Technicians</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240 Psychology of Human Relations</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Related Instruction Credits</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Total Program Credits**

**54**

**Manufacturing/Machinist Technology**

Georgetown Campus

(206) 934-6865

The CNC Machinist Program is an intensive program designed to prepare qualified individuals for entry into the job market as a CNC Machinist (Computer Numerical Control). Students will be involved in the production and machining of industry parts.

The Basic Manufacturing Certificate of Completion is a one quarter (3 month) course of study that provides students with entry-level manufacturing skills and a foundation for certificates and two year degrees in other manufacturing specialty areas. Students interested in advanced knowledge and skills are encouraged to enroll in a longer course of study to complete an A.A.A.S. degree in Manufacturing at partner colleges.
The Principles of Precision Machining Certificate of Completion is a two quarter (6 month) course of study that provides students with entry level manufacturing skills and a foundation to pursue other certificates and two year degrees in other manufacturing specialty areas.

The Manufacturing/Machinist Technology Certificate of Proficiency is a three quarter (9 month) course of study to prepare students for entry into the job market as a Manufacturing Technician. This program is part of a collaboration program with Shoreline Community College. Upon completion of the Certificate of Proficiency, it can be applied towards an Associate in Applied Arts and Sciences (A.A.A.S) in Manufacturing/Machinist Technology completed at Shoreline Community College.

Certificate of Proficiency

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFGT 105</td>
<td>Basic Manufacturing</td>
<td>20</td>
</tr>
<tr>
<td>MFGT 106</td>
<td>Intermediate Manufacturing</td>
<td>20</td>
</tr>
<tr>
<td>MFGT 120</td>
<td>Advanced Manufacturing</td>
<td>20</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 60

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Medical Office Professional

**Technical Education**

(206) 934-5394

This certificate program prepares individuals to work in a variety of medical office facilities including hospitals, clinics, physician, dental, optical, chiropractic and physical therapy offices, insurance companies and government offices. Emphasis is on interpersonal communication, insurance billing, medical terminology, software programs and conversational skills in a medical setting. Skill development includes clerical functions, keyboarding, billing and patient relations.

Certificate

**PREREQUISITES**
Enter program with 30 wpm keyboarding skills, or first complete BUS 104 - Keyboarding.

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHE 106</td>
<td>Math for Healthcare Careers</td>
<td>3</td>
</tr>
<tr>
<td>AHE 124</td>
<td>Software Applications for Health Care</td>
<td>4</td>
</tr>
<tr>
<td>AHE 130</td>
<td>Medical Insurance and Coding I</td>
<td>3</td>
</tr>
<tr>
<td>AHE 131</td>
<td>Medical Insurance and Coding II</td>
<td>3</td>
</tr>
<tr>
<td>AHE 143</td>
<td>Medical Terminology and A/P I for Coders</td>
<td>4</td>
</tr>
<tr>
<td>AHE 144</td>
<td>Medical Terminology and A/P II for Coders</td>
<td>4</td>
</tr>
<tr>
<td>AHE 171</td>
<td>Excel for Health Occupations</td>
<td>4</td>
</tr>
<tr>
<td>AHE 172</td>
<td>Word for Healthcare</td>
<td>4</td>
</tr>
<tr>
<td>AHE 173</td>
<td>Intro to Records Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>BUS 197</td>
<td>Work Experience/Business Occupations</td>
<td>15</td>
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</table>

Credit range: 1-15; Total required credits: 3

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BUS 216</td>
<td>Professional Development</td>
<td>5</td>
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**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
<tr>
<td>BUS 131</td>
<td>Integrated Communications I</td>
<td>5</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 53

---

Multi-Occupational Trades Degree for the PSEJATC Apprenticeship Program

**Apprenticeship Division**

(206) 934-5387

South Seattle College provides an Associate of Applied Science degree in Multi-Occupational Trades for students already enrolled in an approved Joint Apprenticeship and Training Council (JATC) apprenticeship program in the following areas: Electricians, Boeing Machinist, Puget Sound Electricians, Sprinkler Fitters, and Meat Cutters. Students enrolled in apprenticeship classes who are interested in this degree should contact their Apprenticeship Coordinator for more information and specific details.

**Associate of Applied Science Degree (A.A.S.)**

**REQUIREMENTS**

Completion of the apprenticeship requirements of the Puget Sound Electrical Joint Apprenticeship and Training Committee (PSEJATC) Apprenticeship Training Program

**PREREQUISITES**

Special requirements for admission.

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEL 141</td>
<td>Accelerated NJATC Electrical Instruction Vice</td>
<td>12</td>
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</table>

*Following can be substituted:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EEL 150</td>
<td>PS Electricians - 1st Year</td>
<td>10</td>
</tr>
<tr>
<td>EEL 151</td>
<td>Puget Sound Electricians - Second Year</td>
<td>10</td>
</tr>
<tr>
<td>EEL 152</td>
<td>Puget Sound Electrical JATC - 3rd Year</td>
<td>10</td>
</tr>
<tr>
<td>EEL 153</td>
<td>Puget Sound Electrical JATC - 4th Year</td>
<td>10</td>
</tr>
<tr>
<td>EEL 154</td>
<td>Puget Sound Electrical JATC - 5th Year</td>
<td>10</td>
</tr>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Applied Math for Technicians</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>SMG 210</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL PROGRAM CREDITS** 67
### NATEF Master

**Automotive Technology Training Center**  
(206) 934-5391

The automotive technology program qualifies students for employment in auto maintenance and related fields. Career opportunities include advancement to auto shop supervisor, service department head, auto service advisor, sales representative, and shop owner. Students completing this program are qualified for entry level work in the automotive industry.

#### 2-Year Certificate

**PREREQUISITES**

NATEF General Service Technician (GST) Certificate or instructor permission.

Completion of the NATEF Minor Certification is required to earn the Master Certification, but the Minor and Master courses may be taken out of sequence.

#### TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 100</td>
<td>Introduction to Electricity</td>
<td>6</td>
</tr>
<tr>
<td>AUT 102</td>
<td>Advanced Electrical Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUT 104</td>
<td>Automotive Electronics</td>
<td>3</td>
</tr>
<tr>
<td>AUT 106</td>
<td>Basic Power Accessories</td>
<td>3</td>
</tr>
<tr>
<td>AUT 112</td>
<td>Manual Transaxles and Clutches</td>
<td>3</td>
</tr>
<tr>
<td>AUT 114</td>
<td>Manual Transmissions, Transfer Cases &amp; Drive Ax</td>
<td>3</td>
</tr>
<tr>
<td>AUT 116</td>
<td>Air Conditioning and Heating</td>
<td>3</td>
</tr>
<tr>
<td>AUT 118</td>
<td>Automatic Transmission Diagnosis and Service</td>
<td>4</td>
</tr>
<tr>
<td>AUT 120</td>
<td>Advanced Automatic Transmission Service</td>
<td>6</td>
</tr>
<tr>
<td>AUT 122</td>
<td>Steering and Suspension</td>
<td>4</td>
</tr>
<tr>
<td>AUT 124</td>
<td>Tires and Wheel Alignment</td>
<td>4</td>
</tr>
<tr>
<td>AUT 126</td>
<td>Basic Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 127</td>
<td>Advanced Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUT 128</td>
<td>Automotive Engine Diagnose/Remove and Replace</td>
<td>4</td>
</tr>
<tr>
<td>AUT 130</td>
<td>Automotive Engine Rebuild</td>
<td>8</td>
</tr>
<tr>
<td>AUT 134</td>
<td>Introduction to Drivability</td>
<td>3</td>
</tr>
<tr>
<td>AUT 138</td>
<td>Advanced Drivability and Fuel Systems</td>
<td>6</td>
</tr>
<tr>
<td>AUT 140</td>
<td>Engine Computers</td>
<td>4</td>
</tr>
<tr>
<td>AUT 142</td>
<td>Emission Controls and Diagnostic Test Equipment</td>
<td>6</td>
</tr>
<tr>
<td>MVM 100</td>
<td>Introduction to Automotive Technology I</td>
<td>3</td>
</tr>
<tr>
<td>MVM 102</td>
<td>Introduction to Automotive Technology II</td>
<td>3</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS** 93

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Applied Math for Technicians</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

**RELATED INSTRUCTION CREDITS** 9

**TOTAL PROGRAM CREDITS** 102

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### Network Administration

**Technical Education Division**  
(206) 934-5365

This program is for students who want to specialize in the design, implementation, security and management of networks, workstations, virtualization, and Cloud computing. Areas covered also include hardware, operating systems, databases, local and wide area networks and wireless environments. Graduates can continue at South to earn a B.A.S. degree, seek employment as IT administrative support, start their own business, or be a support specialist in one of these in-demand technologies.

#### Associate of Applied Science Degree (A.A.S.)

**TECHNICAL SPECIALTY COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 100</td>
<td>Beginning Computers</td>
<td>5</td>
</tr>
<tr>
<td>CTN 101</td>
<td>Introduction to Computing Technology</td>
<td>5</td>
</tr>
<tr>
<td>CTN 120</td>
<td>Databases I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 131</td>
<td>Introduction to Computer Programming</td>
<td>5</td>
</tr>
<tr>
<td>CTN 142</td>
<td>Operating Systems II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 143</td>
<td>Operating Systems III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 160</td>
<td>Web Production I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 170</td>
<td>PC Hardware I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 171</td>
<td>PC Hardware II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 270</td>
<td>Local Area Networks I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 274</td>
<td>Local Area Networks III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 276</td>
<td>Virtualization and the Cloud I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 277</td>
<td>Network Security I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 278</td>
<td>Wireless Communication I</td>
<td>3</td>
</tr>
<tr>
<td>CTN 281</td>
<td>Security+ Certification</td>
<td>5</td>
</tr>
<tr>
<td>CTN 282</td>
<td>Cisco I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 283</td>
<td>Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 284</td>
<td>Cisco III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 285</td>
<td>Cisco IV</td>
<td>5</td>
</tr>
<tr>
<td>CTN 295</td>
<td>Research and Customer Service</td>
<td>5</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIALTY CREDITS** 98

**TECHNICAL ELECTIVES**

Minimum of 10 credits from the following courses or other approved computer related coursework.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTN 121</td>
<td>Database II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 197</td>
<td>Computing Internship</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Credit range: 1:15</td>
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</tr>
</tbody>
</table>

**TOTAL required internship credits: 3-5**

**TECHNICAL ELECTIVES CREDITS** 10

**RELATED INSTRUCTION**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 116</td>
<td>Business Math/Spreadsheets</td>
<td>5</td>
</tr>
</tbody>
</table>
### 2016-2018 CATALOG

**SEATTLE COLLEGES**

#### General Education Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 105</td>
<td>Applied Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 240</td>
<td>Psychology of Human Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

#### General Education Credits

9

#### General Education Electives

A minimum of 5 credits in one of the following areas:

- Visual, Literary and Performing Arts
- Individual, Cultures and Societies

#### General Education Electives Credits

5

#### Total Program Credits

125

### Associate of Applied Science - T Degree (A.A.S.-T)

#### Technical Specialty Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 100</td>
<td>Beginning Computers</td>
<td>5</td>
</tr>
<tr>
<td>CTN 101</td>
<td>Introduction to Computing Technology</td>
<td>5</td>
</tr>
<tr>
<td>CTN 120</td>
<td>Databases I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 131</td>
<td>Introduction to Computer Programming</td>
<td>5</td>
</tr>
<tr>
<td>CTN 142</td>
<td>Operating Systems II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 143</td>
<td>Operating Systems III</td>
<td>5</td>
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<tr>
<td>CTN 160</td>
<td>Web Production I</td>
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<td>CTN 170</td>
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<tr>
<td>CTN 270</td>
<td>Local Area Networks I</td>
<td>5</td>
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<tr>
<td>CTN 274</td>
<td>Local Area Networks III</td>
<td>5</td>
</tr>
<tr>
<td>CTN 276</td>
<td>Virtualization and the Cloud I</td>
<td>5</td>
</tr>
<tr>
<td>CTN 277</td>
<td>Network Security I</td>
<td>5</td>
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<tr>
<td>CTN 278</td>
<td>Wireless Communication I</td>
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<tr>
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<td>CTN 283</td>
<td>Cisco II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 284</td>
<td>Cisco III</td>
<td>5</td>
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<tr>
<td>CTN 285</td>
<td>Cisco IV</td>
<td>5</td>
</tr>
<tr>
<td>CTN 295</td>
<td>Research and Customer Service</td>
<td>5</td>
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</tbody>
</table>

**Technical Specialty Credits**

98

#### Technical Electives

Minimum of 10 credits must be selected from the following (or other approved computer-related coursework).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTN 121</td>
<td>Database II</td>
<td>5</td>
</tr>
<tr>
<td>CTN 197</td>
<td>Computing Internship</td>
<td>5</td>
</tr>
<tr>
<td>CTN 224</td>
<td>Web Server Configuration and Management</td>
<td>5</td>
</tr>
</tbody>
</table>

**Technical Electives Credits**

25

#### Related Instruction

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 102</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>PHYS&amp; 114</td>
<td>General Physics I w/Lab</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp; 100</td>
<td>General Psychology</td>
<td>5</td>
</tr>
</tbody>
</table>

**Related Instruction Credits**

20

#### Total Program Credits

125

### Computer Technology Virtualization

#### Short-Term Certificate

#### Computing Technology

(206) 934-5394

This certificate is a total of 15 credits and a supplement to the Network Administration Associate of Applied Science Degree. Qualifications: Network Administration A.A.S. degree or equivalent degree within the last two years or have equivalent IT industry experience within the last two years.

**Technical Specialty Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTN 276</td>
<td>Virtualization and the Cloud 1</td>
<td>5</td>
</tr>
<tr>
<td>CTN 286</td>
<td>Virtualization and the Cloud 2</td>
<td>5</td>
</tr>
<tr>
<td>CTN 287</td>
<td>Cloud Computing</td>
<td>5</td>
</tr>
</tbody>
</table>

**Technical Specialty Credits**

15

### Nursing: Associate Degree Nursing (A.D.N.)

#### Nursing

(206) 934-6654

The Associate Degree Nursing Program (A.D.N.) offers an Associate in Nursing Direct Transfer Degree/Major Related Program (A.N. DTA/MRP) with a two-year curriculum designed to prepare registered nurses for the workforce. The program includes nursing lab, skills theory, clinical practice, and general education courses.

New students are accepted into the six-quarter program each fall and winter. Students are accepted on a first-come, first-served basis, after completion of all admission requirements. Applications are accepted in April and September. Opening dates and times will be posted before each application period.

Prepares students to take the National Council of State Boards of Nursing Examination (NCLEX-RN) and apply for a license as a registered nurse in Washington State.

### Associate Degree Nursing

#### Prerequisites

The 45 credits of Program Prerequisites listed below are included in the total credits required for the program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL&amp; 160</td>
<td>General Biology w/Lab</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 241</td>
<td>Human Anatomy and Physiology 1</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 242</td>
<td>Human Anatomy and Physiology 2</td>
<td>5</td>
</tr>
<tr>
<td>BIOL&amp; 260</td>
<td>Microbiology</td>
<td>5</td>
</tr>
</tbody>
</table>
CHEM& 121 Intro to Chemistry ....................... 5
ENGL& 101 English Composition I .................. 5
MATH& 146 Introduction to Statistics ................ 5
PSYC& 100 General Psychology .................... 5
PSYC& 200 Lifespan Psychology .................... 5

COREQUISITE COURSES
Students are required to take the following general education requirements prior to graduation from the nursing program. These may be taken before entering the nursing program (preferred) or during the nursing program.

ENGL& 102 Composition II ......................... 5
HUM  105 Interculture Communication ................ 5
Humanities Electives .................................. 5

See Advising for list of approved courses.

COREQUISITE CREDITS  15

TECHNICAL SPECIALTY COURSES
NURS 101 Fundamentals of Nursing .................. 4
NURS 102 Medical-Surgical Nursing I ............... 3
NURS 103 Medical-Surgical Nursing II ............... 3
NURS 111 Skills Lab I .................................. 2
NURS 112 Medical-Surgical Nursing I ............... 3
NURS 113 Skills Lab II .................................. 1
NURS 121 Nursing Practice ................................ 3
NURS 123 Nursing Practice II .......................... 4
NURS 132 Behavioral Health Nursing .................. 3
NURS 142 Behavioral Health Practice .................. 3
NURS 204 Medical-Surgical Nursing III ............... 5
NURS 205 Medical-Surgical Nursing IV ............... 4
NURS 206 Health Promotion and Managing Care in Nursing 3
NURS 214 Nursing Practice III .......................... 3
NURS 215 Maternal Nursing ............................ 3
NURS 216 Nursing Practice IV .......................... 5
NURS 224 Pediatric Nursing ............................ 3
NURS 225 Maternal Practice ............................ 1
NURS 226 Transitions to Professional Nursing Role 3
NURS 234 Pediatric Practice ............................ 1
NUTR& 101 Nutrition ................................... 5
PHIL 131 Ethics and Policy in Healthcare I ........ 1
PHIL 132 Ethics and Policy in Healthcare II ........ 2
PHIL 230 Ethics and Policy in Healthcare III ........ 2
PSYC 132 Psychosocial Issues in Healthcare I ........ 2
PSYC 231 Psychosocial Issues in Healthcare II ........ 2
PSYC 232 Psychosocial Issues in Healthcare II ........ 1

TECHNICAL SPECIALTY CREDITS  75
TOTAL PROGRAM CREDITS  135

Parent Education
Home & Family Life Department
(206) 934-5802

South Seattle College’s Home & Family Life Department at the Duwamish Apprenticeship and Education Center offers classes in parent education throughout the West Seattle and Vashon Island communities. Parents enroll in a non-credit course titled “Parent Education Child Study Laboratory” while enrolling their child (ages birth to 5 years old) in a Parent Cooperative Preschool. Course content includes child development, positive guidance, communication, anger management, problem-solving, health and safety, family issues, and group organization and leadership. Parents develop skills through informal discussions with other enrolled parents and professional teaching staff, as well as:

- Practical experiential participation in their child’s preschool lab – one day per week.
- Discussion at an evening parenting class – once per month.
- Lectures at parent education seminars – minimum of one per quarter

Supervision & Management
Technical Education
(206) 934-5394

Designed for middle managers seeking to sharpen their skills or attain a promotion, the Supervision and Management program is also open to employees who are interested in advancing to management.

Levels of recognition are provided during progressive phases of the program, including a Certificate in Personnel Management (upon completion of six specific courses), a Certificate in Nonprofit Leadership (upon completion of six specific courses), a Certificate of Achievement (upon completion of a minimum of 55 credits), and an A.A.S. degree (upon completion of the required course of study). The Supervision and Management program is articulated to four-year institutions.

Certificate

TECHNICAL SPECIALTY COURSES
SMG 100 Leadership and Supervision ................ 3
SMG 103 Supervising A Diverse Workforce .......... 3
SMG 110 Financial Management ..................... 3
SMG 120 Hiring Personnel ............................ 3
SMG 197 Internship or Cooperative Education Experience 5
Credit range: 1-15
Total required internship credits: 5
SMG 210 Project Management ........................ 3
SMG 217 Organizational Behavior .................... 3
SMG 220 Personnel Performance Management .... 3
SMG 222 Management and Labor Relations ....... 3
SMG 265 Marketing Management ................... 3
RELATED INSTRUCTION

**BUS 110** Business Mathematics .................. 5
  Following can be substituted:
  **BUS 116** Business Mathematics/Spreadsheet ..... 5
  **BUS 131** Integrated Communications I .......... 5
  Following can be substituted:
  **ENGL & 101** English Composition I ............. 5
  **BUS 169** Using Computers in Business ........... 5
  Following can be substituted:
  **Ability to type 25 wpm.**
  **BUS 230** Business Communications ............. 5
  Following can be substituted:
  **ENGL & 102** Composition II ................... 5
  **PSYC 240** Psychology of Human Relations ....... 3

TOTAL PROGRAM CREDITS 55

**Associate of Applied Science Degree (A.A.S.)**

REQUIREMENTS
Completion of Certificate Requirements: 55 credits

TECHNICAL SPECIALTY COURSES

**SMG 100** Leadership and Supervision ............. 3
**SMG 103** Supervising A Diverse Workforce ....... 3
**SMG 110** Financial Management ................... 3
**SMG 120** Hiring Personnel ......................... 3
**SMG 197** Internship or Cooperative Education Experience 5
**SMG 210** Project Management ..................... 3
**SMG 217** Organizational Behavior ................. 3
**SMG 220** Personnel Performance Management .... 3
**SMG 222** Management and Labor Relations ....... 3
**SMG 265** Marketing Management ................... 3

TECHNICAL SPECIALTY CREDITS 55

RELATED INSTRUCTION

**BUS& 101** Introduction to Business ............... 5
**BUS 110** Business Mathematics .................. 5
**BUS 131** Integrated Communications I ........... 5
**BUS 169** Using Computers in Business .......... 5
**BUS& 201** Business Law ................................ 5
**BUS 230** Business Communications ............... 5
**BUS 235** Oral Communications in Business ....... 5
**SMG 100** Leadership and Supervision ............. 3
**SMG 103** Supervising A Diverse Workforce ....... 3
**SMG 110** Financial Management ................... 3
**SMG 120** Hiring Personnel ......................... 3
**SMG 197** Internship or Cooperative Education Experience 5
  Credit range: 1-15
  Total required internship/co-op experience credits: 6-8
**SMG 210** Project Management ..................... 3
**SMG 217** Organizational Behavior ................. 3
**SMG 220** Personnel Performance Management .... 3
**SMG 222** Management and Labor Relations ....... 3
**SMG 265** Marketing Management ................... 3

TECHNICAL SPECIALTY CREDITS 57

RELATED INSTRUCTION

**ENGL & 101** English Composition I ............... 5
**MATH 102** College Algebra .......................... 5
**PSYC & 100** General Psychology ................. 5

RELATED INSTRUCTION CREDITS 15

RELATED INSTRUCTION ELECTIVES
Choose a concentration from the following:
- Accounting
- Computer Science and Technology
- Economics, Trainer Education (OTE)
- College Transfer Track

RELATED INSTRUCTION ELECTIVES CREDITS 15

TOTAL PROGRAM CREDITS 90-95

**Associate of Applied Science - T Degree (A.A.S.-T)**

TECHNICAL SPECIALTY COURSES

**BUS& 101** Introduction to Business ............... 5
**BUS 169** Using Computers in Business .......... 5
  Following can be substituted:
  **CSC 100** Beginning Computers ................ 5
  **BUS& 201** Business Law ................................ 5
  **BUS 230** Business Communications ............... 5
  **BUS 235** Oral Communications in Business ....... 5
  **SMG 100** Leadership and Supervision ............. 3
  **SMG 103** Supervising A Diverse Workforce ....... 3
  **SMG 110** Financial Management ................... 3
  **SMG 120** Hiring Personnel ......................... 3
  **SMG 197** Internship or Cooperative Education Experience 5
    Credit range: 1-15
    Total required internship/co-op experience credits: 6-8
  **SMG 210** Project Management ..................... 3
  **SMG 217** Organizational Behavior ................. 3
  **SMG 220** Personnel Performance Management .... 3
  **SMG 222** Management and Labor Relations ....... 3
  **SMG 265** Marketing Management ................... 3

TECHNICAL SPECIALTY CREDITS 57

RELATED INSTRUCTION

**ENGL & 101** English Composition I ............... 5
**MATH 102** College Algebra .......................... 5
**PSYC & 100** General Psychology ................. 5

RELATED INSTRUCTION CREDITS 15

RELATED INSTRUCTION ELECTIVES
Choose a concentration from the following:
- Accounting
- Computer Science and Technology
- Economics, Trainer Education (OTE)
- College Transfer Track

RELATED INSTRUCTION ELECTIVES CREDITS 17-20

TOTAL PROGRAM CREDITS 90-95
Web Assistant/Web Development
Technical Education Division
(206) 934-5365
This new program will specialize in underlying aspects of effective web design and development. The program prepares students to design and create websites that display appropriately on all devices and platforms. The program prepares students to integrate databases, social media, and content management systems. A student can progress from a one-year Web Assistant certificate to a two-year Web Development Associate of Applied Science Degree (A.A.S.) degree or Web Development Associate of Applied Science - T Degree (A.A.S.-T).

Web Assistant Certificate

TECHNICAL SPECIALTY COURSES

| ART  | 210 Digital & Graphic Art - Photoshop + Illustrator .5 |
| CSC  | 100 Beginning Computers .................. 5 |
| CTN  | 101 Introduction to Computing Technology ......5 |
| CTN  | 120 Databases I ................. 5 |
| CTN  | 121 Database II .................. 5 |
| CTN  | 131 Introduction to Computer Programming ......5 |
| CTN  | 160 Web Production I.............. 5 |
| CTN  | 161 Web Production II .......... 5 |
| CTN  | 165 Usability Design .............. 5 |

RELATD INSTRUCTION

ENGL | 105 Applied Composition ..................3
ENGL& 101 English Composition .................5
PHIL& | 120 Symbolic Logic ..................5
PHIL& 101 Symbolic Logic (Higher MATH course)
MATH | 102 Algebra ..................5
PSYC | 240 Psychology of Human Relations ...........3
PSYC& 100 General Psychology ........5

TOTAL PROGRAM CREDITS 56-60

Web Development
Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

| ART  | 210 Digital & Graphic Art - Photoshop + Illustrator .5 |
| CSC  | 100 Beginning Computers .................. 5 |
| CTN  | 101 Introduction to Computing Technology ......5 |
| CTN  | 120 Databases I ................. 5 |
| CTN  | 121 Database II .................. 5 |
| CTN  | 131 Introduction to Computer Programming ......5 |
| CTN  | 160 Web Production I.............. 5 |
| CTN  | 161 Web Production II .......... 5 |
| CTN  | 165 Usability Design .............. 5 |
| CTN  | 173 Content Management Systems (CMS) Wordpress 5 |
| CTN  | 197 Computing Internship ............3

TOTAL PROGRAM CREDITS 107

This degree incorporates the 1-year Web Assistant certificate (both are earned).

Web Development
Associate of Applied Science - T Degree (A.A.S.-T)

TECHNICAL SPECIALTY COURSES

| ART  | 210 Digital & Graphic Art - Photoshop + Illustrator .5 |
| CSC  | 100 Beginning Computers .................. 5 |
| CTN  | 101 Introduction to Computing Technology ......5 |
| CTN  | 120 Databases I ................. 5 |
| CTN  | 121 Database II .................. 5 |
| CTN  | 131 Introduction to Computer Programming ......5 |
| CTN  | 160 Web Production I.............. 5 |
| CTN  | 161 Web Production II .......... 5 |
| CTN  | 165 Usability Design .............. 5 |
| CTN  | 173 Content Management Systems (CMS) Wordpress 5 |
| CTN  | 197 Computing Internship ............3

TOTAL PROGRAM CREDITS 107

This degree incorporates the 1-year Web Assistant certificate (both are earned).
Welding Fabrication Technology

Technical Education
(206) 934-5394

Metal fabrication and welding are important components of many trades and the demand for trained welders and fabricators continues to rise. Job opportunities and skill needs are diverse, including general and production welding, blueprint reading, layout, cutting and fitting, finishing and materials handling.

Training includes all aspects of welding and fabrication operations including blueprint reading, planning operation sequence, applying geometry, heat effects and metal properties, layout, positioning, fitting, welding, and material handling. Special projects are also offered for the journey-level welding fabricator desiring to update skills and certification.

Graduates are prepared for positions such as welders, fabricators, shop supervisors, estimators and shop owners in boatbuilding, automotive, machine fabrication, commercial fishing gear, piping systems, and building construction and maintenance. This program prepares students to pass welder certification tests through the Washington Association of Building Officials (WABO). Welding also offers a short-term certificate in Electronic Assembly.

Certificate

TECHNICAL SPECIALTY COURSES

HDM 171 Lift Truck Operator ......................2
WFT 100 Welding Theory .........................5
WFT 105 Print Reading and Welding Symbols ....5
WFT 111 Materials and Testing ....................5
WFT 120 Intro to Welding Oxyacetylene/Shielded Metal Arc ....................6
WFT 121 SMAW Shielded Metal Arc Welding .....6
WFT 124 Gas Metal Arc Welding ..................6
WFT 125 FC&W Flux Core Arc Welding ..........6
WFT 127 Gas Tungsten Arc Welding ..............6
WFT 128 Fabrication Carbon Arc/Plasma Arc Cutting .6

RELATED INSTRUCTION

BUS 116 Business Math/Spreadsheets ............5
BUS 131 Integrated Communications I ..........5

Following can be substituted:
ENGL 101 English Composition I ...............5

AND:
ICT 103 Computer Applications I ...............2

TOTAL PROGRAM CREDITS 66-68

Associate of Applied Science Degree (A.A.S.)

TECHNICAL SPECIALTY COURSES

HDM 171 Lift Truck Operator ......................2
WFT 100 Welding Theory .........................5
WFT 105 Print Reading and Welding Symbols ....5
WFT 111 Materials and Testing ....................5
WFT 120 Intro to Welding Oxyacetylene/Shielded Metal Arc ....................6
WFT 121 SMAW Shielded Metal Arc Welding .....6
WFT 124 Gas Metal Arc Welding ..................6
WFT 125 FC&W Flux Core Arc Welding ..........6
WFT 127 Gas Tungsten Arc Welding ..............6
WFT 128 Fabrication Carbon Arc/Plasma Arc Cutting .6
<table>
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<th>Description</th>
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<td>WFT 100</td>
<td>Welding Theory</td>
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<tr>
<td>WFT 105</td>
<td>Print Reading and Welding Symbols</td>
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<tr>
<td>WFT 111</td>
<td>Materials and Testing</td>
<td>5</td>
</tr>
<tr>
<td>WFT 120</td>
<td>Intro to Welding Oxyacetylene/Shielded Metal Arc</td>
<td>6</td>
</tr>
<tr>
<td>WFT 121</td>
<td>SMAW Shielded Metal Arc Welding</td>
<td>6</td>
</tr>
<tr>
<td>WFT 124</td>
<td>Gas Metal Arc Welding</td>
<td>6</td>
</tr>
<tr>
<td>WFT 125</td>
<td>FCAW Flux Core Arc Welding</td>
<td>6</td>
</tr>
<tr>
<td>WFT 127</td>
<td>Gas Tungsten Arc Welding</td>
<td>6</td>
</tr>
<tr>
<td>WFT 128</td>
<td>Fabrication Carbon Arc/Plasma Arc Cutting</td>
<td>6</td>
</tr>
<tr>
<td>WFT 197</td>
<td>Industry Internship</td>
<td>3</td>
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<tr>
<td>WFT 220</td>
<td>Pipe Shielded Metal Arc (SMAW)</td>
<td>6</td>
</tr>
<tr>
<td>WFT 224</td>
<td>SMAW Shielded Metal Arc Welding</td>
<td>6</td>
</tr>
<tr>
<td>WFT 227</td>
<td>Advanced Fabrication I</td>
<td>6</td>
</tr>
<tr>
<td>WFT 228</td>
<td>Pipe Gas Tungsten Arc Welding (GTAW)</td>
<td>7</td>
</tr>
<tr>
<td>WFT 238</td>
<td>Advanced Fabrication II</td>
<td>8</td>
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</tbody>
</table>

**GENERAL EDUCATION COURSES**

Visual, Literary and Performing Arts ........................................ 5
Following can be substituted: Individuals, cultures and Societies

**GENERAL EDUCATION CREDITS**

5

**TOTAL PROGRAM CREDITS**

113-115

---

**Welding – Level 2 Short-Term Certificate**

Technical Education  
(206) 934-5394

This certificate lists the courses required for the second quarter of study for the Level 2 Certificate. Courses required include advanced layout, press brake operation, shielded metal arc welding, welding symbols, flame shaping, and maintenance and repair welding. Successful completion of Level I is required to enroll in Level 2 courses. Level 2 Certificate gives the successful completer a more in-depth study of general welding and fabricating principles, and will qualify students for employment in an entry level welding job or continue with more training.

**TECHNICAL SPECIALTY COURSES**

WFT 105  Print Reading and Welding Symbols .................. 5  
WFT 124  Gas Metal Arc Welding .................................. 6  
WFT 125  FCAW Flux Core Arc Welding ........................... 6  
WFT 127  Gas Tungsten Arc Welding .............................. 6  
WFT 128  Fabrication Carbon Arc/Plasma Arc Cutting ...... 6  
WFT 197  Industry Internship ................................. 3  
WFT 220  Pipe Shielded Metal Arc (SMAW) ....................... 6  
WFT 227  Advanced Fabrication I ............................... 6  
WFT 228  Pipe Gas Tungsten Arc Welding (GTAW) ............. 7  
WFT 238  Advanced Fabrication II .............................. 8  

**TECHNICAL SPECIALTY CREDITS**

86

**TOTAL PROGRAM CREDITS**

17
Welding – Level 3 Short-Term Certificate
Technical Education
(206) 934-5394
This certificate lists the courses required for the third quarter of study for the Level 3 Certificate. Courses required include Gas Metal Arc Welding, Gas Tungsten Arc Welding, and Weld Inspection. Level 3 Welding Certificate gives the successful completer more advanced skills in welding and fabricating principles, and will qualify students for employment in entry level welding jobs or continue with more training.

TECHNICAL SPECIALTY COURSES
WFT 111 Materials and Testing .................. 5
WFT 127 Gas Tungsten Arc Welding ............... 6
WFT 128 Fabrication Carbon Arc/Plasma Arc Cutting . . . . 6
TOTAL PROGRAM CREDITS 17

Welding – Level 4 Short-Term Certificate
Technical Education
(206) 934-5394
This certificate lists the courses required for the fourth quarter of study for the Level 4 Certificate. Courses required include Welding Certification, Salvage and Reconstruction, Heat Treat, and Employee Rights and Responsibilities. Level 4 Welding Certificate gives the successful completer more advanced skills in welding and fabricating principles, and will qualify students for employment in entry level welding jobs or continue with more training.

TECHNICAL SPECIALTY COURSES
WFT 220 Pipe Shielded Metal Arc (SMAW) ........... 6
WFT 227 Advanced Fabrication I ..................... 6
TOTAL PROGRAM CREDITS 15

Welding – Level 5 Short-Term Certificate
Technical Education
(206) 934-5394
This certificate lists the courses required for the fifth quarter of study for the Level 5 Certificate. Courses required include Estimating and Layout, Development of Welding Process, Aluminum Weldments, Material Handling, Construction of Jigs and Fixtures. Level 5 Welding Certificate gives the successful completer more advanced skills in welding and fabricating principles, and will qualify students for employment in entry level welding jobs or continue with more training.

TECHNICAL SPECIALTY COURSES
WFT 228 Pipe Gas Tungsten Arc Welding (GTAW) ....... 7
WFT 238 Advanced Fabrication II .................... 8
TOTAL PROGRAM CREDITS 15

Welding for Shipyard Careers - General Welding Certificate Level I Short-Term Certificate
Georgetown Campus
(206) 934-7914
The training will introduce students to welding theory, process and application understanding. Students will learn to adapt welding techniques specific to the marine industry. Focus will include Shielded Metal Arc Welding (SMAW), tack welding, SMAW-1F-flat/2F-horizontal/3F-vertical/4F-overhead, fillet weld positions, joint fit-up, back-gouging and other skills will be applied to a shipyard work environment. Other competencies include welds in vertical and overhead positions for marine operations and accomplishing welds out of doors in all weather conditions and in areas not easily accessible.

TECHNICAL SPECIALTY COURSES
WFT 100 Welding Theory .......................... 5
WFT 120 Intro to Welding Oxyacetylene/Shielded Metal Arc .................. 6
WFT 121 SMAW Shielded Metal Arc Welding ....... 6
TOTAL PROGRAM CREDITS 17

Welding for Shipyard Careers - General Welding Certificate Level II Short-Term Certificate
Georgetown Campus
(206) 934-7914
The training course provides opportunities leading to direct employment at several of the largest marine companies in the state of Washington. The certificate will provide the student with the necessary skills to be qualified to the American Society of Mechanical Engineers (ASME) Section IX structural steel welding code for production steel FCAW Flux Cored Arc Welding applications.

Technical Specialty Courses
MATH 110 Applied Math for Technicians ............. 3
WFT 105 Print Reading and Welding Symbols ......... 5
WFT 125 FCAW Flux Core Arc Welding ............. 6
WFT 144 Shipyard Intensive Welding ............... 6
TOTAL PROGRAM CREDITS 19
Wine Industry: Food & Wine Pairing
Culinary Arts
(206) 934-7942

The program provides introductory and professional development classes relating to the wine industry, including certificates, Associate of Arts and Associate of Arts – T degrees in these areas: Wine Making (learning to produce quality wines and develop an individual style of wine); Wine Marketing and Sales; and Food and Wine Pairing (the intricacies of bridging food and wine). The program prepares individuals for careers in the wine industry, and provides advanced skill training for those already employed in the industry. Must be 18 years or older to apply.

For more information on the wine industry program, visit the Northwest Wine Academy website at: nwwineacademy.com.

Certificate

PREREQUISITE
Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES
WIN 101 Introduction to Enology ................. 3
WIN 121 Introduction to Viticulture ............... 3
WIN 123 Sensory Evaluation .................... 3
WIN 131 Introduction to Washington Wines ......... 3
WIN 132 Wine History and Appreciation ............ 3
WIN 133 Introduction to Wines of the World ........ 5
WIN 151 Introduction to Food and Wine Pairing....... 3
WIN 152 Advanced Food and Wine Pairing .......... 3
WIN 153 Food and Wine Pairing - Varietals I ......... 4
WIN 154 Food and Wine Pairing - Varietals II ........ 4
WIN 155 Food and Wine Pairing - Varietals III ........ 4
WIN 156 Food and Wine Pairing - Fortified Wines ...... 2
WIN 157 Food and Wine Pairing - Desserts .......... 2

RELATED INSTRUCTION
ENGL & 101 English Composition I .................. 5
ENGL 105 Applied Composition ...................... 3
ENGL 106 Technical Writing ....................... 3
MATH 102 College Algebra ......................... 5
MATH 116 Business Math/Spreadsheets .............. 5
PSYC & 100 General Psychology ..................... 5
PSYC 240 Psychology of Human Relations ........... 3

TOTAL PROGRAM CREDITS 55-58

Associate of Applied Science Degree (A.A.S.)

PREREQUISITE
Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES
WIN 101 Introduction to Enology ................. 3
WIN 121 Introduction to Viticulture ............... 3
WIN 123 Sensory Evaluation .................... 3
WIN 131 Introduction to Washington Wines ......... 3
WIN 132 Wine History and Appreciation ............ 3
WIN 133 Introduction to Wines of the World ........ 5
WIN 151 Introduction to Food and Wine Pairing....... 3
WIN 152 Advanced Food and Wine Pairing .......... 3
WIN 153 Food and Wine Pairing - Varietals I ......... 4
WIN 154 Food and Wine Pairing - Varietals II ........ 4
WIN 155 Food and Wine Pairing - Varietals III ........ 4
WIN 156 Food and Wine Pairing - Fortified Wines ...... 2
WIN 157 Food and Wine Pairing - Desserts .......... 2
WIN 197 Internship ................................ 3

TECHNICAL SPECIALTY CREDITS 48

REQUIRED COURSES
ACCT 110 Introduction to Accounting/Bookkeeping I .. .5
ACCT & 201 Principals of Accounting I ............... 5
BUS & 101 Introduction to Business ................ 5
BUS & 201 Business Law ......................... 5
CMST & 210 Interpersonal Communication ............ 5
CMST & 220 Public Speaking ........................ 5
PSYC 240 Psychology of Human relations ............ 3

REQUIRED COURSES - ELECTIVES CREDITS 30

REQUIRED COURSES - ELECTIVES
Take 15 credits from the following courses:
BUS 140 Customer Relations .......................... 5
BUS 169 Using Computers in Business ............... 5
BUS 170 Information Technology I .................. 5
BUS 177 Spreadsheets ................................ 5
BUS 182 Information and Database Management ...... 5
CTN 160 Web Production I ......................... 5

REQUIRED COURSES - ELECTIVES CREDITS 30

RELATED INSTRUCTION
BUS 116 Business Math/Spreadsheets .............. 5
ENGL 105 Applied Composition ...................... 3
PSYC 240 Psychology of Human Relations ........... 3

RELATED INSTRUCTION CREDITS 11
## General Education Electives
Visual, Literary and Performing Arts ........................................... 10

**General Education Electives Credits** ........................................ 10

**Total Program Credits** .......................................................... 104

---

### Associate of Applied Science - T Degree (A.A.S.-T)

**Prerequisite**
Must be 21 years or older to apply.

### Technical Specialty Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIN 101</td>
<td>Introduction to Enology</td>
<td>3</td>
</tr>
<tr>
<td>WIN 121</td>
<td>Introduction to Viticulture</td>
<td>3</td>
</tr>
<tr>
<td>WIN 123</td>
<td>Sensory Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>WIN 131</td>
<td>Introduction to Washington Wines</td>
<td>3</td>
</tr>
<tr>
<td>WIN 132</td>
<td>Wine History and Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>WIN 133</td>
<td>Introduction to Wines of the World</td>
<td>5</td>
</tr>
<tr>
<td>WIN 151</td>
<td>Introduction to Food and Wine Pairing</td>
<td>3</td>
</tr>
<tr>
<td>WIN 152</td>
<td>Advanced Food and Wine Pairing</td>
<td>3</td>
</tr>
<tr>
<td>WIN 153</td>
<td>Food and Wine Pairing - Varietals I</td>
<td>4</td>
</tr>
<tr>
<td>WIN 154</td>
<td>Food and Wine Pairing - Varietals II</td>
<td>4</td>
</tr>
<tr>
<td>WIN 155</td>
<td>Food and Wine Pairing - Varietals III</td>
<td>4</td>
</tr>
<tr>
<td>WIN 156</td>
<td>Food and Wine Pairing - Fortified Wines</td>
<td>2</td>
</tr>
<tr>
<td>WIN 157</td>
<td>Food and Wine Pairing - Desserts</td>
<td>2</td>
</tr>
<tr>
<td>WIN 197</td>
<td>Internship</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Required Credits**: 3

**Technical Specialty Credits**: 48

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 110</td>
<td>Introduction to Accounting/Bookkeeping</td>
<td>5</td>
</tr>
<tr>
<td>ACCT&amp; 201</td>
<td>Principals of Accounting</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 101</td>
<td>Introduction to Business</td>
<td>5</td>
</tr>
<tr>
<td>BUS&amp; 201</td>
<td>Business Law</td>
<td>5</td>
</tr>
<tr>
<td>BUS 235</td>
<td>Oral Communications in Business</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;210</td>
<td>Interpersonal Communication</td>
<td>5</td>
</tr>
<tr>
<td>CMST&amp;220</td>
<td>Public Speaking</td>
<td>5</td>
</tr>
<tr>
<td>SMG 210</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Courses Credits**: 23

### Required Courses - Electives

- Take 15 credits from the following courses:
  - BUS 140  Customer Relations .............................................. 5
  - BUS 169  Using Computers in Business                             | 5       |
  - BUS 170  Information Technology I                                | 5       |
  - BUS 177  Spreadsheets                                            | 5       |
  - BUS 182  Information and Database Management                     | 5       |
  - CTN 160  Web Production I                                        | 5       |

**Required Courses - Electives Credits**: 15

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### Related Instruction

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL&amp; 101</td>
<td>English Composition I</td>
<td>5</td>
</tr>
<tr>
<td>MATH 102</td>
<td>College Algebra</td>
<td>5</td>
</tr>
<tr>
<td>PSYC&amp; 100</td>
<td>General Psychology</td>
<td>5</td>
</tr>
</tbody>
</table>

**Related Instruction Credits**: 15

**General Education Electives**
Visual, Literary and Performing Arts ........................................... 10

**General Education Electives Credits** ........................................ 10

**Total Program Credits** .......................................................... 108

---

### Wine Industry: Wine Making

#### Culinary Arts

(206) 934-7942

The program provides introductory and professional development classes relating to the wine industry, including certificates, Associate of Arts and Associate of Arts – T degrees in these areas: Wine Making (learning to produce quality wines and develop an individual style of wine); Wine Marketing and Sales; and Food and Wine Pairing (the intricacies of bridging food and wine). The program prepares individuals for careers in the wine industry, and provides advanced skill training for those already employed in the industry. Must be 18 years or older to apply.

For more information on the wine industry program, visit the Northwest Wine Academy website at: nwwineacademy.com.

#### Certificate

**Prerequisite**
Must be 21 years or older to apply.

### Technical Specialty Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIN 101</td>
<td>Introduction to Enology</td>
<td>3</td>
</tr>
<tr>
<td>WIN 102</td>
<td>Enology Laboratory Analysis</td>
<td>3</td>
</tr>
<tr>
<td>WIN 103</td>
<td>Elements of Wine Production</td>
<td>4</td>
</tr>
<tr>
<td>WIN 104</td>
<td>Elements of Wine Production II</td>
<td>4</td>
</tr>
<tr>
<td>WIN 105</td>
<td>Elements of Wine Production III</td>
<td>4</td>
</tr>
<tr>
<td>WIN 107</td>
<td>Winery Production I</td>
<td>1</td>
</tr>
<tr>
<td>WIN 108</td>
<td>Winery Production II</td>
<td>1</td>
</tr>
<tr>
<td>WIN 109</td>
<td>Winery Production III</td>
<td>1</td>
</tr>
<tr>
<td>WIN 121</td>
<td>Introduction to Viticulture</td>
<td>3</td>
</tr>
<tr>
<td>WIN 122</td>
<td>Wine Chemistry and Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>WIN 123</td>
<td>Sensory Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>WIN 131</td>
<td>Introduction to Washington Wines</td>
<td>3</td>
</tr>
<tr>
<td>WIN 132</td>
<td>Wine History and Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>WIN 133</td>
<td>Introduction to Wines of the World</td>
<td>5</td>
</tr>
<tr>
<td>WIN 197</td>
<td>Internship</td>
<td>5</td>
</tr>
</tbody>
</table>
RELATED INSTRUCTION

CHEM&121 Intro to Chemistry .................. 5
ENGL& 101 English Composition I .............. 5

*Following can be substituted:
ENGL 105 Applied Composition .................. 3
-AND-
ENGL 106 Technical Writing ...................... 3

MATH 102 College Algebra ...................... 5

*Following can be substituted:
BUS 116 Business Math/Spreadsheets .......... 5

PSYC& 100 General Psychology .................... 5

*Following can be substituted:
PSYC 240 Psychology of Human Relations .... 3

TOTAL PROGRAM CREDITS 57-60

Associate of Applied Science Degree (A.A.S.)

PREREQUISITE
Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES

WIN 101 Introduction to Enology ................ 3
WIN 102 Enology Laboratory Analysis .......... 3
WIN 103 Elements of Wine Production .......... 4
WIN 104 Elements of Wine Production II ....... 4
WIN 105 Elements of Wine Production III ...... 4
WIN 107 Winery Production I .................... 1
WIN 108 Winery Production II ................... 1
WIN 109 Winery Production III ................... 1
WIN 121 Introduction to Viticulture ............. 3
WIN 122 Wine Chemistry and Microbiology .... 3
WIN 123 Sensory Evaluation ........................ 3
WIN 131 Introduction to Washington Wines .... 3
WIN 132 Wine History and Appreciation ......... 3
WIN 133 Introduction to Wines of the World .... 5
WIN 197 Internship ................................ 3

TECHNICAL SPECIALTY CREDITS 46

REQUIRED COURSES

ACCT 110 Introduction to Accounting/Bookkeeping I ...... 5

*Following can be substituted:
ACCT& 201 Principals of Accounting I .............. 5

BUS& 101 Introduction to Business ................. 5
BUS& 201 Business Law ................................ 5

*Following can be substituted:
POLS& 200 Intro to Law ............................ 5

BUS 235 Oral Communications in Business ...... 5

*Following can be substituted:
CMST& 210 Interpersonal Communication ......... 5
-OR- CMST& 220 Public Speaking .................... 5

SMG 210 Project Management ........................ 3

REQUIRED COURSES CREDITS 23

REQUIRED COURSES - ELECTIVE

Take 15 credits from the following courses:

BUS 140 Customer Relations ........................ 5
BUS 169 Using Computers in Business .......... 5
BUS 177 Spreadsheets ............................. 5
BUS 179 Word Processing ........................ 5
BUS 182 Information and Database Management ... 5
CTN 160 Web Production I .......................... 5

REQUIRED COURSES - ELECTIVES CREDITS 30

RELATED INSTRUCTION

BUS 116 Business Math/Spreadsheets .......... 5
ENGL 105 Applied Composition ................. 3
PSYC 240 Psychology of Human Relations .... 3

RELATED INSTRUCTION CREDITS 11

GENERAL EDUCATION ELECTIVE

Visual, Literary and Performing Arts ............. 10

A minimum of 10 credits from two courses.

GENERAL EDUCATION CREDITS 10

TOTAL PROGRAM CREDITS 103

Associate of Applied Science - T Degree (A.A.S.-T)

PREREQUISITE
Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES

WIN 101 Introduction to Enology ................ 3
WIN 102 Enology Laboratory Analysis .......... 3
WIN 103 Elements of Wine Production .......... 4
WIN 104 Elements of Wine Production II ....... 4
WIN 105 Elements of Wine Production III ...... 4
WIN 107 Winery Production I .................... 1
WIN 108 Winery Production II ................... 1
WIN 109 Winery Production III ................... 1
WIN 121 Introduction to Viticulture ............. 3
WIN 122 Wine Chemistry and Microbiology .... 3
WIN 123 Sensory Evaluation ........................ 3
WIN 131 Introduction to Washington Wines .... 3
WIN 132 Wine History and Appreciation ......... 3
WIN 133 Introduction to Wines of the World .... 5
WIN 197 Internship ................................ 3

TECHNICAL SPECIALTY CREDITS 50.5

REQUIRED COURSES

ACCT 110 Introduction to Accounting/Bookkeeping I ...... 5

*Following can be substituted:
ACCT& 201 Principals of Accounting I .............. 5

BUS& 101 Introduction to Business ................. 5
BUS& 201 Business Law ................................ 5

*Following can be substituted:
POLS& 200 Intro to Law ............................ 5

BUS 235 Oral Communications in Business ...... 5

*Following can be substituted:
CMST& 210 Interpersonal Communication ......... 5
-OR- CMST& 220 Public Speaking .................... 5

SMG 210 Project Management ........................ 3

REQUIRED COURSES CREDITS 23
Professional/Technical Programs

SouTh Professional/Technical Programs

2016-2018 CATALOG

SEATTLE COLLEGES

BUS 235  Oral Communications in Business ........... 5
     Following can be substituted:
         CMST&210 Interpersonal Communication .......... 5
         -OR-
         CMST&220 Public Speaking ................... 5
SMG 210  Project Management ...................... 3

REQUIRED COURSES - ELECTIVES

Take 15 credits from the following courses:

BUS  140  Customer Relations .................... 5
BUS  169  Using Computers in Business .......... 5
BUS  177  Spreadsheets .......................... 5
BUS  179  Word Processing ....................... 5
BUS  182  Information and Database Management . 5
CTN  160  Web Production I ...................... 5

REQUIRED COURSES - ELECTIVES CREDITS 30

RELATED INSTRUCTION

ENGL& 101  English Composition I .............. 5
MATH  102  College Algebra ..................... 5
PSYC& 100  General Psychology .................. 5

RELATED INSTRUCTION CREDITS 15

GENERAL EDUCATION ELECTIVES

Visual, Literary and Performing Arts .................. 10
     A minimum of 10 credits from two courses.

GENERAL EDUCATION CREDITS 10

TOTAL PROGRAM CREDITS 107

Wine Industry: Wine Marketing and Sales

Culinary Arts  
(206) 934-7942

The program provides introductory and professional development classes relating to the wine industry, including certificates, Associate of Arts and Associate of Arts – T degrees in these areas: Wine Making (learning to produce quality wines and develop an individual style of wine); Wine Marketing and Sales; and Food and Wine Pairing (the intricacies of bridging food and wine). The program prepares individuals for careers in the wine industry, and provides advanced skill training for those already employed in the industry. Must be 18 years or older to apply.

For more information on the wine industry program, visit the Northwest Wine Academy website at: nwwineacademy.com.

Certificate

PROGRAM PREREQUISITE

Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES

WIN  101  Introduction to Enology .................. 3
WIN  121  Introduction to Viticulture .............. 3
WIN  123  Sensory Evaluation ...................... 3
WIN  131  Introduction to Washington Wines ...... 3
WIN  132  Wine History and Appreciation ........ 3
WIN  133  Introduction to Wines of the World ....... 5
WIN  141  Wine Marketing and Sales .............. 3
WIN  151  Introduction to Food and Wine Pairing ... 3

RELATED INSTRUCTION

BUS& 101  Introduction to Business .............. 5
CMST&101  Introduction to Communication ....... 5
ENGL 101  English Composition I .................. 5
     Following can be substituted:
         ENGL 105 Applied Composition ................. 3
     -AND-
         ENGL 106 Technical Writing .................. 3
MATH 102  College Algebra ........................ 5
     Following can be substituted:
         BUS 116 Business Math/Spreadsheets .......... 5
PSYC& 100  General Psychology .................. 5
     Following can be substituted:
         PSYC 240 Psychology of Human Relations .... 3

TOTAL PROGRAM CREDITS 49-52

Associate of Applied Science Degree (A.A.S.)

PROGRAM PREREQUISITE

Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES

WIN  101  Introduction to Enology .................. 3
WIN  121  Introduction to Viticulture .............. 3
WIN  123  Sensory Evaluation ...................... 3
WIN  131  Introduction to Washington Wines ...... 3
WIN  132  Wine History and Appreciation ........ 3
WIN  133  Introduction to Wines of the World ....... 5
WIN  141  Wine Marketing and Sales .............. 3
WIN  142  Wine Business .......................... 3
WIN  151  Introduction to Food and Wine Pairing ... 3
WIN  197  Internship .............................. 5

Total Required Credits: 3

TECHNICAL SPECIALTY CREDITS 32
REQUIRED COURSES
ACCT 110 Introduction to Accounting/Bookkeeping I .... 5

Following can be substituted:
ACCT 201 Principals of Accounting I ............. 5
BUS& 101 Introduction to Business ................ 5
BUS& 201 Business Law ........................ 5

Following can be substituted:
POLS& 200 Intro to Law ........................ 5
BUS 235 Oral Communications in Business ......... 5

Following can be substituted:
CMST&210 Interpersonal Communication .......... 5

CMST&220 Public Speaking ............. 5
SMG 210 Project Management ....................... 3

REQUIRED COURSES CREDITS 23

REQUIRED COURSES - ELECTIVES
Take 15 credits from the following courses:
BUS 140 Customer Relations ..................... 5
BUS 169 Using Computers in Business .......... 5
BUS 170 Information Technology I ............. 5
BUS 177 Spreadsheets .......................... 5
BUS 182 Information and Database Management ... 5
CTN 160 Web Production I ....................... 5

REQUIRED COURSES CREDITS 30

RELATION INSTRUCTION
BUS 116 Business Math/Spreadsheets ........... 5
ENGL 105 Applied Composition .................. 3
PSYC 240 Psychology of Human Relations ........ 3

RELATED INSTRUCTION CREDITS 11

GENERAL EDUCATION ELECTIVES
Visual, Literary and Performing Arts .............. 10
A minimum of 10 credits from two courses.

GENERAL EDUCATION CREDITS 10

TOTAL PROGRAM CREDITS 91

Associate of Applied Science - T Degree (A.A.S.-T)

PROGRAM PREREQUISITE
Must be 21 years or older to apply.

TECHNICAL SPECIALTY COURSES
WIN 101 Introduction to Enology .................. 3
WIN 121 Introduction to Viticulture ............. 3
WIN 123 Sensory Evaluation ..................... 3
WIN 131 Introduction to Washington Wines ...... 3
WIN 132 Wine History and Appreciation ........ 3
WIN 133 Introduction to Wines of the World ...... 5
WIN 141 Wine Marketing and Sales ............. 3
WIN 142 Wine Business .......................... 3
WIN 151 Introduction to Food and Wine Pairing . 3
WIN 197 Internship .............................. 3

TECHNICAL SPECIALTY CREDITS 32

REQUIRED COURSES
ACCT 110 Introduction to Accounting/Bookkeeping I .... 5

Following can be substituted:
ACCT& 201 Principals of Accounting I ............. 5
BUS& 101 Introduction to Business ................ 5
BUS& 201 Business Law ........................ 5

Following can be substituted:
POLS& 200 Intro to Law ........................ 5
BUS 235 Oral Communications in Business ......... 5

Following can be substituted:
CMST&210 Interpersonal Communication .......... 5

CMST&220 Public Speaking ............. 5
SMG 210 Project Management ....................... 3

REQUIRED COURSES CREDITS 23

REQUIRED COURSES - ELECTIVES
Take 15 credits from the following courses:
BUS 140 Customer Relations ..................... 5
BUS 169 Using Computers in Business .......... 5
BUS 170 Information Technology I ............. 5
BUS 177 Spreadsheets .......................... 5
BUS 182 Information and Database Management ... 5
CTN 160 Web Production I ....................... 5

REQUIRED COURSES CREDITS 30

RELATION INSTRUCTION
ENGL& 101 English Composition I .............. 5
MATH 102 College Algebra ........................ 5
PSYC& 100 General Psychology .................. 5

RELATED INSTRUCTION CREDITS 15

GENERAL EDUCATION ELECTIVES
Visual, Literary and Performing Arts .............. 10
A minimum of 10 credits from two courses.

GENERAL EDUCATION CREDITS 10

TOTAL PROGRAM CREDITS 95
Welcome

Seattle Vocational Institute (SVI) is located in the heart of the city’s Central District and is the area’s largest delivery system for short-term workforce training and education leading directly to employment. SVI is the short-term, high-impact professional/technical training arm of Seattle Colleges and has strong ties to business, labor, government, and community-based organizations.

Programs at SVI Institute lead to jobs with a future and career advancement through continued training and education at Seattle Colleges. Adult basic studies and high school equivalency programs enable students to improve their reading, writing, math, and critical thinking skills, while personal and professional development courses are designed to enhance the development of individual potential and success in the workplace. Short-term, open-entry job training programs lead to real-world jobs with livable wages in growing fields such as Allied Health, Construction and Technology. This independent job-training institute joined Seattle Colleges as part of the State Legislature’s 1991 Workforce Training and Education Act.

Mission

We provide students with workplace competencies that lead to in-demand, sustainable employment, and livable wages. SVI ensures opportunities for academic achievement through workforce preparation, lifelong learning, and basic skills and literacy education, especially for underserved and under-represented individuals. SVI creates professional-technical programs and learning environments that are accessible, diverse, responsive, and innovative with support from business, labor, government, and community partnerships.

Learning Outcomes

The success of SVI’s workforce training programs are best measured by:

- the number of students who successfully complete their training programs
- the number of students placed into jobs upon program completion
- the level of wages earned by program completers in their first placement upon completion
- evidence that SVI graduates successfully retain jobs
- the number of students who participate in further education and training
Facts at a Glance*

2015–2016 ANNUAL PROFILES
Annual attendance 2015–2016 553

Special Enrollments
Running Start 18
Worker Retraining 120

FALL 2016 PROFILES
Students **
Median age 28
Ethnic diversity 88%
Male/Female 27%/73%
With bachelor or higher degrees 4%
Employed 25%
full-time 10%
With dependents 36%
single parents 25%
Full-time/Part-time attendance 79%/21%

Programs
Workforce Education 81%
Basic Skills 19%

Course Funding Sources
State-supported 100%
Contract-supported 0%
Student-supported 0%

* Source: State Board for Community and Technical Colleges Data Warehouse and Seattle College District’s Database.

** State-funded

Admissions
(206) 934-4945
Admission to Seattle Vocational Institute is open to anyone who meets the following criteria:

- competent to profit from the curricular offerings of the institute and
- 18 years or older or
- high school graduate or has a GED or has applied for admission under the Bright Future (Running Start) program or
- 16 years or older and is seeking a GED (with Public Schools’ approval)

Applications for Admission are accepted on a continuing basis. Admission is required for students pursuing a Certificate of Completion in a vocational training program.

Admission standards vary from program to program. Students need to meet the criteria for the individual program, ability to benefit, and/or test requirements. Program requirements are listed on each program’s profile page.

Registration
(206) 934-4970

Admissions Process
At SVI we take the admissions process one step at a time, guiding students to help them determine their career goals and how to attain them.

Step 1 Attend an Admission Workshop
Admission workshops are held every Wednesday from 1-4 p.m. (some alternate evening times are also available). The workshop introduces prospective students to the academic programs available at SVI as well as available federal and workforce funding. This workshop is followed by CASAS testing to help evaluate students’ readiness for college.

Step 2 Apply for Financial Aid and Other Funding Assistance Programs

Federal Funding
Complete the Federal Student Financial Aid (FAFSA) application online at fafsa.ed.gov. If you need assistance, visit SVI room 111A or call (206) 934-4977. Send your high school transcript or GED/Certificate of High School Equivalency directly to the SVI Registrar. See an admissions specialist if you did not graduate from high school or obtain your GED.

Other Funding Assistance
Check with the Workforce Programs office in SVI room 109 to see if you qualify for alternative/additional funding programs.
Step 3  Follow Through on All Requirements

- Work to improve your reading and/or math skills in the Intensive Labs if needed for your program.
- Take the College Placement (CPAt) test if necessary.
- Make sure your financial aid and/or workforce funding is secured.
- Make sure high school transcripts or GED have been received by the SVI Registrar. (This is very important because there is no financial aid funding without it.)

ABE/GED Courses
Open-entry classes are offered for Adult Basic Education and GED classes.

ESL Courses
Attend an ESL Evaluation if English is not your native language. Open-entry English as a Second Language classes are offered on a space available basis. The first step is to contact the Admissions Office for ESL evaluation dates.

Calendar
http://svi.seattlecolleges.edu/calendar/
The instructional calendar is on the SVI website and shows quarter start and end dates, holidays, and vacations. Individual course calendars or schedules show days that topics will be covered as well as dates when assignments are due and when tests will be given.

Tuition & Fees
Costs for tuition, books, lab fees, and supplies vary among SVI programs. For specific costs, consult with the Admissions Coordinator.

Financial Aid and Assistance
(206) 934-4977
Federal and state financial assistance is available for students attending SVI.
Depending on eligibility, assistance consists of various programs including: Work-Study and grants, including Pell Grants, State Need Grants, Federal Supplemental Opportunity Grants, BFET (Basic Food Employment and Training, Worker Retraining, WorkFirst funding, the Opportunity Grant Program. Funding and Financial Aid information are provided at the Admission Workshops. Financial aid application information is electronically transmitted to a federal processing center. Early application is encouraged. Late applicants may have their entry into school delayed. In order to maintain financial aid eligibility, students must maintain satisfactory academic and in-class participation progress.

College Refund Policy
Students must complete an Add/Drop Form for a refund to be issued. Refunds will be made as stated below, subject to a $6 administration fee. (In those instances where the fee subject to refund is less than $6, the minimum forfeiture will be reduced to that amount. Fees are subject to change.)
Withdrawal due to class cancellation by the institution .100%
Withdrawal prior to the first day of class (less admin. fee) .100%
Withdrawal during the first five instructional days of class (less admin. fee). .................. 100%
Withdrawal from the 6th instructional day through the 20th calendar day of the quarter (less admin. fee) 50%
NOTE: This tuition and lab fee refund schedule applies to regular SVI programs only. Tuition refund policies for customized programs are defined in the training agreement for each customized program.

Progress, Grades & Transcripts

Attendance
See District Attendance Policy, page 35. For some programs at SVI, attendance requirements are specific.

Grades
Seattle Vocational Institute uses the decimal/letter grading system of the Seattle College District. See page 39.

Satisfactory Academic Progress
Student Progress Policy (District Policy 311) states that students are expected to make satisfactory academic progress while enrolled at Seattle Colleges. Satisfactory progress means that students are passing and completing their coursework in their educational programs.
To maintain Satisfactory Progress, students must pass all classes with a minimum 2.0 GPA and maintain an 85 percent participation rate. Participation is defined as in-class engagement during regularly scheduled class times. Individual programs of study may have additional requirements including higher GPA requirements for certain courses. For details on specific programs, consult the Office of Instruction. Students enrolled at SVI who incur any of the following conditions will be contacted by college personnel and may be placed on probation:
- Students who do not earn a 2.0 GPA or better in every class
- Students who do not earn the individual program-required GPA for particular classes or do not meet other requirements
- Students who do not achieve 85 percent participation rate
Program Coordinators/Administrators will work with students to develop an educational plan and identify strategies and resources tailored to individual needs and circumstances. Students who are in violation of one or more Satisfactory Academic Progress standards will receive a letter from the college; it will be sent to the home address that is on record with the college registration office. The letter will explain what the student needs to do and resources that are available to help the student meet the student progress standards in the future. Students who fail to meet the satisfactory progress standards during a college quarter will be placed on probation in the subsequent quarter and will be notified in writing of their placement on probation during that quarter. Students who fail to maintain the required GPA and/or the required in-class participation in each course will be placed on probation for one college quarter.

**Academic Probation**

Students on probation cannot enroll in the next quarter of programs until the probation is removed. Students on probation are encouraged to work with their program leads/instructors to determine the corrective actions.

In order to end Academic Probation the student must meet with their lead or designated instructor on a weekly basis to discuss progress, repeat the course or courses in which a grade of less than 2.0 was awarded (less than 2.9 for Medical and Dental Assistant students) and achieve the required GPA.

Students who demonstrate satisfactory academic progress will be removed from probationary status. Students may not advance to the next quarter unless the probation status is removed.

**In-Class Participation Probation**

Students should consult with the Office of Instruction and their individual program leads for specific instructional and funding program requirements regarding their in-class participation obligations.

**Enrolling and Withdrawing from Classes**

**Program Enrollment**

Students may enroll in programs prior to the first day of the session without instructor permission. Absolutely no documents will be processed after the 10th day of the quarter.

**Withdrawing from classes**

To officially withdraw from classes at Seattle Vocational Institute, students must complete an Add/Drop Form, available at the Registration Office. Students should return the Add/Drop Form to the Registration Office to officially withdraw.

- During the first 10 days of the college quarter, students may withdraw from a course without a “W” appearing on their transcripts.
- From the third week to the eighth week of the quarter, students may withdraw and a “W” will be recorded and will remain on their transcripts.
- After the eighth week of the quarter, students may not officially withdraw from a class, regardless of academic status.
- After a “W” is issued, the course may be repeated only once.

**NOTE:** Enrollment and withdrawal decisions may affect a student’s financial aid. Check with the Financial Aid Office to determine eligibility.

**Repeating a Course**

If a student receives a “W” or a failing grade, the student must repeat and receive a passing grade for the course before being allowed to enroll in the next quarter’s program courses. A student is allowed to repeat the course one time. Under exceptional circumstances, the Dean of Instruction may allow an additional repeat.

**Grade errors**

Grade errors should be reported to the Registration Office within six months from the date of issue of that grade. Grade errors reported after this time may not be changed. Students are encouraged to consult with their instructors before initiating a grade review process.
Transcripts
Students who wish to obtain an official transcript (a copy of their permanent academic record) must make a request in writing to the Registration Office. This service costs $4.50 per copy (subject to change) and requires up to one week for processing. Official, sealed transcripts are generally required by other institutions when students transfer. Students may also obtain an unofficial copy of their transcripts at any time, at no charge.

Transcripts may be released directly to a student or a designated second party only upon presentation of positive identification (such as a driver's license). Release of transcripts to a second party requires a written release from the student authorizing that person to pick up a transcript. Transcripts will not be released to a student’s parent without the student’s written consent or unless the parent can establish the student’s dependency as defined by the Internal Revenue Code of 1954, Section 152.

Transcripts will not be released if students have not fulfilled all of their financial obligations to SVI and the Seattle College District.

Graduation Requirement
To earn a Certificate of Completion from Seattle Vocational Institute, students must complete all required courses within their program of study, have a minimum GPA of 2.0, meet individual program requirements, and have a minimum in-class participation percentage rate of 85 percent of the total program. Students must apply for graduation one quarter prior to completion. Please see the SVI Student Handbook for details.

Student Rights & Responsibilities
As a unit of Seattle College District VI, students of the Seattle Vocational Institute comply with the Student Rights and Responsibilities of the District.

See pages 42-47 or the web at seattlecolleges.edu/district/currentstudents/studentrulescs.aspx.

Policy, Fee & Program Changes
Policies and procedures contained in this catalog are subject to change by the SVI administration; SVI also reserves the right to change fee schedules, tuition amounts and program content.

Admissions & Programs
206 934-3195
The Admissions Coordinator can help individuals review program and course options, and can provide information about the job market.

Bookstore
See page 52 for the Bookstore at Seattle Central College.

Disability Services Center
(206) 934-4183 (V/TYY)
Seattle Central College provides support services to help SVI students with disabilities meet their educational needs. Students with disabilities requiring accommodations are asked to contact the office at Central prior to registration, present certified documentation and meet with a counselor. There are two counselors, one who focuses on disabilities, and one who works directly with deaf students.

See pages 45 and 50 for a complete description of disability support services.

Food Service
Vending machines and microwave ovens are available in the 2nd floor Cafeteria and the 5th floor Student Lounge.
Workforce Development Office
(206) 934-4950
SVI Room 109
The Workforce Office contains funding advisors for Workforce programs (Worker Retraining, BFET, Opportunity Grant and WorkFirst) as well as representatives from community-based organizations who provide additional services for SVI students. Computers are available to students for job search, résumé creation and updating, and similar endeavors. Job listings for full-time and part-time employment are posted in the SVI Workforce Office. Information on employers and current wages for different occupations are also available. Pre-employment, Life Skills, and Stress Management workshops are offered periodically. These workshops provide information on how to manage stress, make initial contact with potential employers, write a résumé and interview successfully. Students who need personal counseling or assistance will be referred to appropriate community resources.

Safety & Security
(206) 934-4933
For all on-campus security issues, call this number. For serious emergencies, dial 911. Security personnel are on duty every day; however, they are not responsible for loss or theft. Students should take appropriate precautions to keep their personal property safe. The students’ well-being and safety are of utmost importance. It is vital that everyone follow strict safety procedures recommended in working with equipment in professional technical classes. In the event of an on-campus accident or injury, students and faculty should report the accident to the Security Office so the injury can be addressed and an accident report completed. Do not hesitate to call 911 for serious injuries. Instructors must be notified if the accident occurs during class.
See page 42 for additional information on personal safety.

Student Advising
(206) 934-4963
An academic advisor meets with all new students to determine their career interests and life goals and to create an educational plan. Academic advisors will also provide assistance with:
- Unofficial transcript evaluation
- Interpretation of CASAS placement
- Understanding program requirements, length and credentials gained
- Academic plan modification
- Referrals to other college and partner agencies services and resources

Counseling Services
(206) 934-3190
http://www.seattlecentral.edu/counsel/faq.php
Counselors provide academic, career, and short term personal counseling around a variety of issues, if the issue is of a long term nature, the counselor may refer you to an appropriate professional in the surrounding area. Counseling provides all students with support and direction in pursuit of their educational goals:
- Personal, Academic, and Career counseling
- Crisis intervention and community referrals
- Disability Support Services

WorkFirst Program
(206) 934-2948
The SVI WorkFirst Program works in partnership with the Department of Social and Health Services (DSHS) to assist DSHS WorkFirst participants with tuition assistance and books. DSHS refers qualified participants to SVI for services including:
- Tuition assistance
- Educational planning
- Interest assessment
- Career advising/counseling
- Job search skills
- Work-First Work Study
Interested WorkFirst participants should inform their DSHS Case Managers of their interest in attending SVI. The DSHS Office will in turn notify SVI.
Programs of Study at SVI

4 Directions for Your Education and Training

1. Pre-College Programs
2. Concurrent High School Program
3. Worker Retraining Program
4. Professional/Technical Programs

1 Pre-College Programs

Adult Basic Education

Basic Studies
(206) 934-4935

The Adult Basic Education program is designed to enhance basic skill levels in math, reading, writing and critical thinking. The integrated instruction uses lecture/discussion, computer-assisted learning, small group work and independent learning in developing competence in Washington state learning standards for math, reading and writing. Classes are open-entry and available at low cost to the student on a space-available basis. The Educational Planning Course is required for entry.

COURSES

ABE 040 Level 4 Integrated Basic Skills - Reading, Math, & Writing

English as a Second Language

Basic Studies
(206) 934-4935

Intermediate/advanced level classes are offered for non-native speakers of English. Emphasis is on vocabulary development, reading and writing needed to function effectively on the job, in a continued educational program, or in daily situations. Classes are available each quarter, at low cost to the student, on a space-available basis. Placement test required.

COURSES

ESL 050 English as a Second Language - Level 5

General Education Development Preparation (GED®)

This open-entry/open-exit, variable-length course prepares adult students for the General Educational Development examination. It combines traditional instruction with computer-assisted and individualized learning appropriate to student needs. Students ready for final testing in one or more of the five subject areas will be assisted in making their appointments at the most appropriate GED® testing location. Classes are offered each quarter at low cost to the student. Students may start at any time on a space-available basis. The Educational Planning Course is required for entry.

COURSES

GED 050 Basic GED Preparation - Level 5
GED 070 Intensive GED Preparation

2 Concurrent High School Program

Bright Future Program

Bright Future Program
(206) 934-6304

The Bright Future Program is a Running Start funded program serving students from all area high schools. This program gives students an opportunity to start their college courses early by allowing qualified high school students access to accredited programs at Seattle Vocational Institute. The program is designed to assist participants in earning a high school diploma and a certificate of completion in one of SVI’s professional technical programs. Students are eligible to enroll in professional technical programs of the Allied Health Division (Dental Assistant, Medical Front Office, Medical Administrative Specialist, Medical Assistant and Phlebotomy), Business Computers Division (Foundation Office Clerk, and Computer Support Technician), the Pre-Apprenticeship Construction Training program and the School of Cosmetology. Coursework completed at SVI counts toward high school graduation requirements as well as professional technical certification.
3 Worker Retraining Program

(206) 934-4936

The Worker Retraining Program offers a variety of services to dislocated workers. A dislocated worker is one who:

- Is currently collecting unemployment insurance after a job layoff
- Has exhausted unemployment benefits within the past two years
- Was self-employed, and is now unemployed due to closure of their own small business
- Is a displaced homemaker who now has to return to work due to separation, divorce, or other inability of the financial supporting partner to provide
- Has received a WARN letter
- Is working in a not-in-demand job
- Has lost a job because of a disaster
- Is a recently separated veteran

Services are devoted to helping workers get a new start on a career in high-wage/high-demand jobs through the provision of tuition assistance. Additional services can include:

- Application assistance for Federal Trade Act Assistance
- Educational planning/interest assessment
- Career advising/counseling
- Job search skills
- Internships
- Job placement
- Advocacy for additional support from community partner agencies who offer Workers Investment Act Funding (WIA) and other funding sources

Finally, the Worker Retraining Program works in partnership with the Employment Security Department (ESD). One of the roles is reviewing Commission Approved Training applications (CAT) that authorize permission for people receiving unemployment benefits to retain their benefits while attending school.

4 Professional/Technical Programs

Computer Support Technician

Business Computers - Vocational Programs
(206) 934-4950

The 33 credit Computer Support Technician program offers hands-on training based on the student’s aptitude, motivation, self-discipline and attitude. Students develop skills in PC hardware configuration, troubleshooting, repairing and upgrades, and learn operating system software commonly used for computers and networking, such as Microsoft and Linux. Strong emphasis is placed on basic marketable skill sets. This program emphasizes critical thinking skills so that students can answer most of their own questions and perform research to resolve problems. In a 3rd quarter project students apply skills in a specific field of their interest based on their own proposal.

CompTIA A+ Certified Service Technician exam preparation is included.

Certificate

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCT 111</td>
<td>Computer Literacy &amp; Applications</td>
<td>2</td>
</tr>
<tr>
<td>BOS 103</td>
<td>Keyboarding</td>
<td>2</td>
</tr>
<tr>
<td>COR 101</td>
<td>Strategies for Success in the Business Office</td>
<td>1</td>
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<td>COR 131</td>
<td>Employment Skills</td>
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<td>ITC 102</td>
<td>Introduction to Computer Systems</td>
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<td>ITC 134</td>
<td>Computer Operating Systems</td>
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<tr>
<td>ITC 140</td>
<td>Introduction to Computer Hardware</td>
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<td>MIC 101</td>
<td>Introduction to Computer Applications</td>
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<tr>
<td>MIC 175</td>
<td>Helpdesk User Support</td>
<td>4</td>
</tr>
<tr>
<td>NET 120</td>
<td>Network Essentials</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 34
Cosmetology
Cosmetology - Vocational Program
(206) 934-4950

The Cosmetology Program includes training in multi-ethnic hairdressing and cosmetology services. A Certificate of Completion includes 1,650 hours of training. The core curriculum is designed to prepare students for employment and to take the State Board of Cosmetology Licensing Examination. Group and individual instruction utilizing Milady techniques and specialized hair styling techniques for hair cutting, scalp care, wet and thermal hair styling, ethnic hair care, hair coloring, foiling, permanent waving, chemical relaxing, skin care, make-up, manicures, pedicures and safety and sanitation measures are typical learning experiences. Advanced students gain additional experience involving customer work under the supervision of state licensed instructors in cosmetology. A detailed estimation of costs and tuition is available.

Certificate
TECHNICAL SPECIALTY COURSES
COS 100 Strategies for Success for Cos/Barb Students ..................1
COS 141 Introduction to Physical Hair Design .............. 4
COS 142 Hair Design Practicum I .......................... 11
COS 143 CPR/First Aid .................................. 0.5
COS 148 Introduction to Chemical Hair Design .......... 12.5
COS 149 Hair Design Practicum II ......................... 7.5
COS 161 Intro to Esthetics for Cosmetology .................. 7.5
COS 162 Intro to Natural Nail Care ......................... 2.5
COS 163 Comprehensive Cosmetology Practicum I .... 12.5
COS 171 Principles of Salon/Shop Business ............ 4.5
COS 172 Employment Skills ............................. 3
COS 173 Comprehensive Cosmetology Practicum II .... 10
COS 181 State Board Presentation ......................... 7.5
COS 182 Salon/Shop Simulation .......................... 10
COS 191 Salon/Shop Experience I ...................... 2.5
COS 192 Salon/Shop Experience II .................... 2.5

RELATED INSTRUCTION
ENGL 105 Applied Composition ............................ 3
MATH 110 Applied Math for Technicians ................. 3

TOTAL PROGRAM CREDITS 105

Dental Assistant
Allied Health
(206) 934-4950

The Dental Assistant Certificate of Completion program has been granted full accreditation by the American Dental Association. This program prepares students for entry level employment within the dental industry. Students are taught chair-side dental assisting through lecture, hands-on experience and 300 hours of mandatory clinical experience in the workplace. Classes are conducted in a state-of-the-art dental environment. Dental Assistant students gain actual experience by working in the Pacific Tower Health Education Center, under the guidance of licensed dentist, Registered Dental Hygienist and Certified Dental Assistant instructors. Dental Services are available by appointment only Monday thru Friday, thru Neighborcare (Beacon Hill) Dental Clinic. Coursework includes anatomy and physiology, medical terminology, clinical procedures, and specialty dental courses that prepare the student for employment following completion of the program.

Certificate
TECHNICAL SPECIALTY COURSES
AHD 100 Strategies for Success for Dental Assistant ... 1
AHD 150 Introduction to Dental Assisting ..................1
AHD 151 Clinical Science I .................................4
AHD 152 Clinical Science II ................................4
AHD 153 Dental Equipment and Instruments ........ 1
AHD 154 Dental Materials ................................. 2
AHD 155 Clinical Lab I ................................. 1.5
AHD 156 Practice Management .......................... 2
AHD 157 Preventive Dentistry ............................. 2
AHD 160 Clinical Procedures I ......................... 10
AHD 161 Radiology Science ............................... 6
AHD 162 Radiology Laboratory .......................... 4
AHD 170 Clinical Procedures II ......................... 10
AHD 171 Dental Specialties ............................... 4
AHD 172 Clinical Laboratory II ......................... 4
AHD 173 Law and Ethics .................................. 2
AHD 190 Job Seeking Skills I ............................. 1.5
AHD 192 Dental Assistant Mandatory Clinical ...... 9
AHL 101 Health Care Provider CPR/First Aid .......... 0.5
AHL 105 HIV/AIDS Training (7 Hours) .................. 0.5

RELATED INSTRUCTION
BCT 111 Computer Literacy and Application
  Fundamentals ............................................. 2
COR 120 Communication & Professionalism ................ 3
ENGL 105 Applied Composition ........................... 3
INFO 101 Information Resources ........................ 1
MATH 110 Applied Math for Technicians ................ 3
PSYC 240 Psychology of Human Relations .............. 3

TOTAL PROGRAM CREDITS 85
Medical Administrative Assistant

Allied Health  
(206) 934-4950

The Medical Administrative Assistant program prepares students for entry-level positions in the outpatient setting of the Allied Healthcare industry. This competency-based program includes topics in business and medical communications, medical terminology, principles of health care operations, public relations and interpersonal communications, software applications, record-keeping and filing systems, scheduling and meeting planning, applicable policy and regulations, and professional standards and ethics.

Certificate

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<thead>
<tr>
<th>TECHNICAL SPECIALTY COURSES</th>
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<tbody>
<tr>
<td>AHL 101 Health Care Provider CPR/First Aid</td>
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<tr>
<td>AHL 105 HIV/AIDS Training (7 Hours)</td>
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<tr>
<td>AHL 113 Medical Terminology I</td>
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<tr>
<td>AHL 114 Medical Terminology II</td>
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</tr>
<tr>
<td>AHL 123 Insurance &amp; Coding</td>
<td>3</td>
</tr>
<tr>
<td>AHL 124 Medical Office Finance</td>
<td>2</td>
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<tr>
<td>AHL 126 Reception &amp; Scheduling Medical Records</td>
<td>2</td>
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<tr>
<td>AHL 127 Electronic Health Records</td>
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<tr>
<td>AHL 128 Law and Ethics</td>
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<tr>
<td>AHL 142 Medical Insurance Billing</td>
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<tr>
<td>AHL 189 Emergency Preparedness</td>
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<tr>
<td>COR 120 Communication &amp; Professionalism</td>
<td>3</td>
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<tr>
<td>COR 131 Employment Skills</td>
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<tr>
<td>MAA 195 MAA Practicum</td>
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<tr>
<td>MAA 196 MAA National Examination Preparation</td>
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</tbody>
</table>

RELATED INSTRUCTION

| BCT 111 Computer Literacy & Application Fundamentals | 2 |
| BCT 130 Processing | 4 |
| BOS 103 Keyboarding | 2 |
| ENGL 105 Applied Composition | 3 |
| INFO 101 Information Resources | 1 |
| MATH 110 Applied Math for Technicians | 3 |
| PSG 110 Behavioral Psychology | 3 |

TOTAL PROGRAM CREDITS 49.5

Medical Assistant

Allied Health  
(206) 934-4950

The Medical Assistant program is a five quarter program that is designed in collaboration with local health care providers, faculty and Technical Advisory Committee members. The program includes instruction in administrative (front office) and clinical (back office) skills necessary to become a successful practitioner in the field of medical assisting.

Medical Assistants are an integral part of the health care team and are trained to understand and perform a multitude of administrative and clinical procedures. Career opportunities exist within clinics, ambulatory care centers, hospitals, and other health care settings. Students attend an externship in a health care facility and upon completion are eligible to sit for a national certification examination and apply for the Washington state medical Assistant credential of qualification.

The Seattle Vocational Institute program is fully accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Medical Assisting Education Review Board. (www.caahep.org, www.maerb.org)

Certificate

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<td>AHL 105 HIV/AIDS Training (7 Hours)</td>
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<td>AHL 111 Anatomy &amp; Physiology</td>
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<td>AHL 112 Anatomy &amp; Physiology I</td>
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<td>AHL 113 Medical Terminology I</td>
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<td>AHL 114 Medical Terminology II</td>
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<tr>
<td>AHL 123 Insurance and Coding</td>
<td>3</td>
</tr>
<tr>
<td>AHL 124 Medical Office Finance</td>
<td>2</td>
</tr>
</tbody>
</table>
Pre-Apprenticeship Construction Training (P.A.C.T.)

Vocational Programs
(206) 934-4970

The Pre-Apprenticeship Construction Training program is designed to assist adults, to gain the skills needed to make them successful competitors for entry-level jobs in construction trade apprenticeship programs. Participants study and apply subjects and skills that are relevant to the work-sites of many occupations, and tour many apprenticeship schools and construction job sites. Students learn basic carpentry skills and terminology, shop math, and effective and safe operation of power tools and demonstrate their competency. Students learn and receive certification in forklift operation, road flagging, OSHA 10 safety, and first aid/CPR. There is additional emphasis on learning skills and adopting attitudes that lead to becoming a positive and productive member of any worksite team/organization. The focus is on building habits for success, including time management, understanding non-verbal communication, taking the initiative, group/team communication, and line/staff/team organization.

Note: Forklift and flagging certification classes are open to the public and are offered at least once per quarter. For information on dates and fees for forklift or flagging, call SVI Registration at 206-934-4970 or the SVI PACT office at 206-934-4957.

Certificate

TECHNICAL SPECIALTY COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA 100</td>
<td>Strategies for Success for Pact Students</td>
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<tr>
<td>MTA 160</td>
<td>Construction Job Skills</td>
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<tr>
<td>MTA 161</td>
<td>Construction Job Readiness</td>
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<tr>
<td>MTA 162</td>
<td>Trades Math I</td>
<td>6</td>
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<tr>
<td>MTA 163</td>
<td>Blueprint Reading</td>
<td>3</td>
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<td>MTA 164</td>
<td>Industrial First Aid and CPR</td>
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<td>MTA 165</td>
<td>Road Flagging Certification</td>
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<td>MTA 167</td>
<td>Construction Trades Training I</td>
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<td>MTA 168</td>
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<td>MTA 169</td>
<td>Construction Trades Training III</td>
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<td>MTA 170</td>
<td>Asset Preparation</td>
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<td>MTA 172</td>
<td>Forklift Operation and Certification</td>
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<tr>
<td>MTA 174</td>
<td>Tools &amp; Material Identification &amp; Handling</td>
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<td>MTA 175</td>
<td>Forms and Grades</td>
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<td>MTA 176</td>
<td>Trades Math II</td>
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<td>MTA 177</td>
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<td>MTA 178</td>
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<tr>
<td>MTA 179</td>
<td>OSHA 10 Safety</td>
<td>1</td>
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</tbody>
</table>

TOTAL PROGRAM CREDITS 41.5

Click to view margin note...
Combined Campus Course Descriptions

Brief descriptions of courses offered at the Seattle Colleges are listed here. Guides on pages 225-227 contain prefix/course and course/prefix lists to assist you in locating courses associated with a particular program. Courses are updated on an ongoing basis, and the most current course information is available at: www.seattlecolleges.edu

How to Read Course Descriptions

Course Prefix
Course Number
Credit Hours
ACCT 130 (5) N
Intro to Accounting/Bookkeeping III
Accounting for service and manufacturing activities including budgeting and cost-revenue analysis for decision-making. Prereq: ACCT 110 and 120.

Where Course is Offered
(C) Central, (N) North, (S) South, (V) SVI

Common Course Numbering (&)

All Washington community colleges, including the Seattle Colleges, are using a Common Course Numbering (CCN) System. The system identifies courses that are equivalent at community colleges across the state to make it easier for students to transfer between two-year colleges.

Courses identified with an ampersand (&) are part of the CCN system (examples: ACCT& or HIST&). However, courses without an “&” will continue to transfer between two-year and four-year colleges under individual Direct Transfer Agreements (DTA), as in the past.

For further explanation of the CCN system visit www.seattlecolleges.edu/coursesSearch.aspx.
Course/Prefix Index

PREFIX to Course

NOTE: Prefixes are revised to fit the statewide Common Course Numbering (CCN) system implemented in Summer 2008. See page 4 for further CCN information. Course listings for Central, North and South start on page 190. SVI courses are listed separately starting on page 180.

ABD Abroad/Study Abroad
ABE Adult Basic Education
ABR Auto Body Collision Repair
ABS Applied Behavioral Science B.A.S.
ACCT Accounting
ACM Aerospace Composite Materials
AD Application Development B.A.S.
AHD Dental Assistant (SVI)
AHE Allied Health/Dental Hygiene/Emergency Medical Technician/Medical Assisting/Phlebotomy/Respiratory Care
AHI Health
AHL Medical Assistant (SVI)
AHM Medical Assisting
AMA Medical Assisting
AME American Ethnic Studies
AMT Aviation Maintenance Technology
ANTH Anthropology
APPRL Apparel Design & Development
ARAB Arabic
ART Art
ASL American Sign Language — see Languages & Literature
ASTR Astronomy
AUT Automotive Technology

BAK Specialty Desserts & Breads — see Culinary Arts
BCT Business Computers (SVI)
BIOL Biology
BOS Business (SVI)
BOT Botany
BTS Basic & Transitional Studies (SVI)
BUS Business

CCE Early Childhood Education
CDS Chemical Dependency — see Social & Human Services
CFS Child & Family Studies

CHED Community Health Education B.A.S. — see Respiratory Care
CHEM Chemistry
CHIN Chinese — see Languages & Literature
CMST Communication
COR Core Employment Readiness (SVI)
COS Cosmetology (SVI)
CPP Community Policing
CSC Computer Science
CTN Computing Technology
CUL Culinary Arts
CWE Cooperative Education/Work Experience

DES Graphic Design
DHY Dental Hygiene B.A.S.
DRMA Drama

ECED Early Childhood Education
EDCON Economics
EDUC Education
EEL Sustainable & Conventional Energy & Control Technology
EET Electronics Technology
EFDA Expanded Function Dental Auxiliary
ENGR Engineering
ENGL English — see Languages & Literature
ENV Environmental Sciences
ESL English as a Second Language — see Languages & Literature

FAM Parent Education/Senior Adult Education
FRCH French — see Languages & Literature
FSD Restaurant Production — see Culinary Arts

GED General Education Development
GEOG Geography
GEOL Geology
GERM German — see Languages & Literature

HDC Human Development
HDIM Diesel & Heavy Equipment Technology
HEA Health
HIN Watch Technology
HIST History
HMG Hospitality Management B.A.S.
HOS Hospitality — see Culinary Arts
HSC High School Completion — Adult Basic Education
HUM Humanities
HVC Heating, A/C, Refrigeration Design Technology

IBN International Trade B.A.S.
ICT Computing Technology (IT)
IFS Industrial First Aid
INT Industrial Manufacturing Technology
ISC, ISD, ISP International & Intercultural Studies
IT Information Technology
ITAL Italian — see Languages & Literature
ITC Information Technology

JAPN Japanese — see Languages & Literature
JRN Journalism

LAN Linguistics — see Languages & Literature
LHO Landscape Horticulture
LIT Literature — see Languages & Literature
LOG Logistics

MAS Medical Administrative Specialist (SVI)
MATH Mathematics
MET Mechanical Engineering Technology — see Engineering
MEY Meteorology
MGO Marine Deck Technology
MIC Information Technology
MSC Material Science — see Science and Engineering
MTA Building Trades Pre-Apprentice Training (SVI)
MTS Marine Technology
MUSC Music
MVM Automotive Technology
Accounting ACCT
Adult Basic Education ABE, HSC
Aerospace Composite Materials ACM, AMT
Allied Health AHE, AHI, AHL (SVI)
Allied Health Dental AHD (SVI)
American Ethnic Studies AME
American Sign Language ASL
Anthropology ANTH
Apparel Design & Development APPRL
Application Development B.A.S. AD
Applied Behavioral Science B.A.S. ABS
Arabic ARAB
Architectural Engineering Drafting TDR
Art ART
Astronomy ASTR
Audiology SPS
Auto Body Collision Repair ABR
Automotive Technology AUT, MVM
Aviation Maintenance Technology AMT
Baking – see Culinary Arts BAK
Basic & Transitional Studies BTS (SVI)
Biology BIOL
Botany BOT
Building Trades Pre-Apprentice (SVI) MTA
Business BUS
Business Office Skills (SVI) BOS
Business Computer Technology (SVI) BCT
Chemical Dependency – see Social & Human Services CDS
Chemistry CHEM
Child & Family Studies CFS
Chinese – see Languages & Literature CHIN
Communication CMST
Community Health Education B.A.S. CHED
Community Policing CPP
Computer Science CSC
Computing Technology CTN, ICT
Cooperative Work Experience CWE
Core Employment Readiness (SVI) COR
Cosmetology (SVI) COS
Culinary Arts BAK, CUL, HOS
Culinary Arts FSD, PST
Dental Assistant (SVI) AHD
Dental Hygiene B.A.S. AHE, DHY
Diesel & Heavy Equipment Technology HDM
Drafting – Architectural/Engineering TDR
and Engineering Graphics & Design Technology
Drama DRMA
Early Childhood Education CCE, CFS, ECED
Economics ECON
Education EDUC
Electronics Technology EET
Emergency Medical Technician AHE
Engineering ENGR, MET, MSC
Engineering Graphics & Design Technology TDR
English – see Languages & Literature ENGL, ESL
English as a Second Language – see Languages & Literature  ESL
Environmental Sciences  ENV
Expanded Function Dental Auxiliary  EFDA

French – see Languages & Literature  FRCH

General Education Development  GED
Geography  GEOG
Geology  GEOL
German – see Languages & Literature  GERM
Graphic Design  DES

Health  HEA
Heating, A/C & Refrigeration Design  HVC
High School Completion – see Adult Basic Education  HSC
History  HIST
Hospitality – see Culinary Arts  HOS
Hospitality Management B.A.S.  HMG
Human Development  HDC
Humanities  HUM

Industrial First Aid  IFS
Industrial Manufacturing Technology  INT
Industrial Power & Control Technology – see Sustainable & Conventional Energy & Control Technology  EEL
Information – see Library Information Research  INFO
Information Technology  IT, ITC, MIC, NET, WEB
International Business B.A.S.  IBN
International Studies  ISC, ISD, ISP
International Trade  IBN
Italian – see Languages & Literature  ITAL

Japanese – see Languages & Literature  JAPN
Journalism  JRN

Landscape Horticulture  LHO
Languages ARAB, ASL, CHIN, ENGL, ESL, FRCH, GERM, ITAL, JAPN, LAN, RUSS, SPAN, VIET
Library Information Research  INFO
Linguistics – see Languages & Literature  LAN
Literature – see Languages & Literature  LIT
Logistics

Marine Technology  MGO, MTS
Material Science – see Science and Engineering  MSC
Mathematics  MATH
Mechanical Engineering MSC, MET, ENGR Technology – see Engineering
Medical Administrative Specialist (SVI)  MAS
Medical Assistant (SVI)  AHL
Medical Assisting  AHM, AMA
Meteorology  MEY
Multiple Trades Apprentice  MTA (SVI)
Music  MUSC

Nanotechnology  NANO
Network Technologies  NET
New Media  NME
Nursing  NUR
Nutrition  NTR

Oceanography  OCEA
Opticianry  OPH

Parent/Senior Adult Education  FAM
Pastry – see Culinary Arts  PST, BAK
Pharmacy Technician  AHI, PHA
Philosophy  PHIL
Phlebotomy  AHE
Photography, Commercial  PHO
Physical Education  PEC
Physics  PHYS
Political Science  POLS
Pre-Apprentice Trades (SVI)  MTA
Professional Technical Teacher Education  PTE
Psychology  PSG (SVI), PSYC

Real Estate  RES
Religion  REL
Respiratory Care B.A.S.  AHE, CHED, RCP

Science  MSC, SCI
Senior Adult Education  FAM, SEN
Service Learning  SLN
Social & Human Services  CDS, SHS
Social Sciences  SSC, SWF
Sociology  SOC
Spanish – see Languages & Literature  SPAN
Specialty Desserts & Breads – see Culinary Arts  BAK
Study Abroad  ABD
Supervision & Management  SMG
Surgical Technology  SURG
Sustainability  SUST
Sustainable Building Science Technology B.A.S.
Sustainable & Conventional Power & Control Technology  EEL

Undergraduate Research  UGR

Vietnamese – see Languages & Literature  VIET

Watch Technology  HIN
Web Design & Development – see IT  WEB
Welding Fabrication Technology  WFT
Wine Industry Training  WIN
Women Studies  WMN
Wood Technology  WCO
**Abroad/Study Abroad**

**ABD 150 (1-30) C**

**Study Abroad**

Students studying abroad through approved Seattle College District programs register for ABD 150, similar to the Learning/Coordinated Studies Programs. Once the student's enrollment schedule is confirmed, the course credits are broken out into discrete courses. All courses are marked “STUDY ABD” in the course description. Study Abroad courses not offered in the Seattle College District are designated with “900” series of numbers. These courses may be used to satisfy distribution requirements in the Associate Degree.

**Accounting**

NOTE: While ACCT& 201, 202 and 203 generally transfer to four-year institutions, some institutions may also accept other accounting courses. Business administration students should check with the four-year institutions of their choice to determine the transferability of any Accounting course. Non-native or ESL students at North Seattle should see their advisor for prerequisites.

**ACCT 110 (5) N,S**

**Intro to Accounting/Bookkeeping I**

Covers development of the accounting cycle for the sole proprietor, covering service and merchandising, types of businesses, special journals, payroll and financial statements.

**ACCT 115 (4) N**

**Teach Personal Finance**

Understand and learn to teach the fundamentals of managing personal finances, including goal setting, budgeting, banking and basic financial transactions; building, maintaining and repairing credit; planning for education and retirement; and basic investments.

**ACCT 120 (5) N,S**

**Intro to Accounting/Bookkeeping II**

Explores specialized accounting procedures for merchandising businesses and partnerships. Intro to accounting for corporations. Prereq: ACCT 110 with 2.0 or higher.

**ACCT 130 (5) N,S**

**Intro to Accounting/Bookkeeping III**

Hands-on use of the check-writing and record-keeping system. Use of Quicken for business accounting and financial management tasks.

**ACCT 131 (5) N**

**QuickBooks**

Hands-on use of QuickBooks to record business transactions, prepare customer invoices, pay vendors and record payroll. QuickBooks organizes and summarizes all financial data and produces a myriad of reports. Prereq: ACCT 110 or ACCT 201 or permission.

**ACCT 197 (1-5) N,S**

**Work Experience: Accounting**

Earn work experience credit in the accounting field. Prereq: Permission.

**ACCT 200 (5) N**

**Accounting for Non Accountants**

Overview of accounting practices, procedures, terminology and concepts needed to understand financial statements and accounting in every day financial transactions. For non-financial individuals and those involved in oversight of financial affairs.

**ACCT& 201 (5) C,N,S**

**Principles of Accounting I**

Defines basic accounting concepts, principles and procedures for recording business transactions and developing financial accounting reports. Recommended: ACCT 110 or sophomore standing (S).

**ACCT& 202 (5) C,N,S**

**Principles of Accounting II**

Examines application of basic accounting concepts, principles and procedures to more complex business situations in a corporate setting. Prereq: ACCT& 201 with a minimum GPA of 2.0 or permission.

**ACCT& 203 (5) C,N,S**

**Principles of Accounting III**

Analysis of accounting data as part of the managerial process of planning, decision-making and control. Concentrates on economic decision-making in enterprises. Prereq: ACCT 120, ACCT& 202 or permission (C,N,S).

**ACCT 214 (5) S**

**Accounting Systems**

Computer applications of basic accounting concepts, principles and procedures, including but not limited to discussions of QuickBooks, Excel, and Microsoft Accounting. Prereq: ACCT 110, 120, &201 or &202 with 2.0 or higher.

**ACCT 215 (3) N**

**Accounting for Small Business**

Gain skills in accounting and financing practices necessary to successfully operate your own small business. Learn cash flows; financing; cost-volume-profit analysis; controlling tax liabilities; insurance; federal, state and local reporting requirements; risk management; investing in long-lived assets and using ratios to evaluate operations.

**ACCT 241 (5) N**

**Personal Financial Planning**

Covers financial planning for individuals and families: investing, diversification, insurance, personal loans, and retirement plans. Learn how much to save in retirement plans, what selections to choose in 401(k)'s, how much and what type of life, disability, or long term care insurance is suitable, and the resulting tax impacts and tax forms for individual financial planning.

**ACCT 250 (5) N**

**Accounting Capstone Course**

Final accounting course in 2-year degree program. Integrate and synthesize knowledge, skills and experiences from prior accounting classes. Covers ethics, internal control, systems configuration, financial research, budgeting and development of a personal portfolio. Prereq: ACCT& 202 or permission.

**ACCT 251 (5) N**

**Intermediate Accounting I**


**ACCT 252 (5) N**

**Intermediate Accounting II**

Further study of financial accounting theory and financial accounting reporting. Includes an in-depth study of generally accepted accounting principles and concepts. Prereq: ACCT 202 or ACCT 251 or instructor permission.

**ACCT 253 (5) N**

**Intermediate Accounting III**

The course provides a comprehensive study of financial accounting theory and financial accounting reporting and concentrates on the foundations of financial accounting and an in-depth study of generally accepted accounting principles and concepts. Emphasis will be on a deeper understanding of leases, income taxes, employee compensation, earnings per share, derivatives statement of cash flows and analysis of financial statements. Includes accounting research written communication, and ethics elements. Prereq: ACCT& 202 or instructor permission.
ACCT 254 (5) N
Advanced Accounting
A comprehensive study of advanced accounting topics including business combinations and consolidations, multinational accounting, and partnership accounting. Prereq: ACCT 252 or permission.

ACCT 255 (5) N
Individual Income Tax
Intro to individual tax laws (as opposed to business tax laws). Includes preparation of individual income tax forms using text and/or web-based sites or income tax software.

ACCT 256 (5) N
Taxation of Corporations and Partnerships
A comprehensive study of the taxation of corporations and partnerships, including basic tax research and the theory of taxation. Prereq: ACCT& 202 and ACCT 255 or instructor permission.

ACCT 257 (5) N,S
Business Tax Accounting
Basic principles, practices and governmental regulations (federal, Washington state and local) involved in business tax accounting. Includes filing returns, record-keeping, tax planning, registrations and business licenses. Prereq: ACCT 120 or ACCT& 202 (N) or permission.

ACCT 258 (5) N
Practical Income Tax Preparation
Builds on ACCT 225. Covers current tax year update information, training in tax preparation software, client information gathering and return preparation processes. Gain real experience working with clients preparing basic level tax returns in a structured environment. Prereq: ACCT 225 or permission.

ACCT 259 (5) N
Practical Income Tax II
Further develop individual income tax skills by reviewing the subtleties in the basic law practiced in ACCT 258. Learn new and more complex aspects of individual income tax. Study ethics in the profession and methods/resources to conduct basic independent research. Prereq: ACCT 255 & 258 or instructor permission.

ACCT 261 (5) N
Accounting Info Systems
Information systems as part of enterprise resource planning systems. Focuses on the activities performed in the major business cycles and the flow of accounting data and information in those systems, whether manual or computerized. Topics include systems analysis, design and implementation, examples of accounting internal controls, fundamental database concepts, and flowcharting. Prereq: ACCT 110 or ACCT& 201.

ACCT 264 (5) N
Tax Research Gifts Estate
Learn federal tax research and IRS tax dispute resolution procedures and skills. Covers ethics related to professional tax preparation and representation. Includes a comprehensive study of tax law as it applies to gifts, estates and trusts. Prereq: ACCT 255.

ACCT 265 (5) N
Accounting Not-for-Profit and Government
Overview of basic accounting principles and procedures relating to not-for-profit and government entities. Includes financial statement preparation and analysis. Prereq: ACCT& 201 or permission.

ACCT 266 (5) N
Enrolled Agent Exam Prep
Preparation for the annual IRS Enrolled Agent Exam to achieve EA certification. Prereq: ACCT 256 & 259 or instructor permission.

ACCT 267 (5) N
Not for Profit Financial Management
Covers fundamentals of financial management for public, health, and not-for-profit fields. Includes vocabulary, concepts, methods, and basic tools of financial management and analysis within the public sector.

ACCT 268 (5) N
Computerized Accounting: Advanced QuickBooks
This course provides an in-depth study of computerized accounting procedures using QuickBooks accounting software. Students will gain a deeper understanding of file types, the general ledger, subsidiary ledgers, advanced transactions including period closing, customizing reports, QuickBooks preferences and setup, time and billing, estimates, inventory, and payroll. This course is an excellent preparatory course toward QuickBooks certification. Prerequisites: The successful completion of ACCT 110 (or ACCT& 201), and ACCT 131.

ACCT 269 (5) N
Not-for-Profit Practice
Provides an overview of the rules and regulations covering not-for-profit organizations. Topics addressed are preparation of Form 990 Return and Form 1023 Application for Exemption, charitable giving and fund raising issues, officer and board of director interaction and ethics, internal control and operational effectiveness.

ACCT 270 (5) N
Cost Accounting
Covers theory of costing accounting, cost systems, sources of cost data and their accumulation, allocation, and analysis and managerial control through cost data. Prereq: ACCT& 203 or permission.

ACCT 271 (5) N
Ethics in Accounting
Learn and cultivate the ethical commitment needed to ensure work in the business world meets the highest standards of integrity, independence and objectivity. Understand obligations and professional responsibilities of accountants and auditors. Uses case studies and SEC case files to study real world issues. Prereq: ACCT 202.

ACCT 272 (5) N
Fraud Examination
Intro to the field of fraud examination, including general methodology and fraud theory. Learn how and why fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved. Includes a special interest project, such as health care fraud. Prereq: ACCT 200, prior accounting course, or permission.

ACCT 273 (5) N
Intro to Financial Crime
Intro to major categories of financial crime and the legal procedures which are frequently relevant to fraud accounting work, including both criminal and civil procedures. Prereq: ACCT 200, prior accounting course, or permission.

ACCT 274 (5) N
Forensic Accounting
Integrate accounting, auditing, and fraud investigative skills. Using case studies, analyze documents, evaluate internal controls, and trace funds to resolve accounting irregularities with an emphasis on fraudulent financial reporting. Includes indirect methods of reconstructing; income, litigation support, computing commercial and economic damages, and business valuation. Prereq: ACCT& 202 and ACCT& 203 or permission.
Course Descriptions

**ACCT 275 (5) N**
Auditing
Intro to auditing, covering generally accepted auditing standards (GAAS), the auditor’s opinion, professional ethics, audit evidence, internal control, and audit procedures. Prereq: ACCT 252 or permission.

**ACCT 290 (5) N**
Independent Study in Accounting
Collaboration between student and instructor to perform research in the field of accounting. Prereq: Permission.

**ACCT 298 (1-5) C,N**
Special Topic: Accounting
Seminar on selected topics or activities in accounting. Prereq: Permission.

**ACCT 299 (1-5) C,N**
Independent Study: Accounting
Independent study of selected accounting topics. Prereq: Permission.

**Adult Basic Education**

**ABE 010 (15) C,S**
ABE Level 1
Basic course in reading, writing and arithmetic designed for the non-reader. Covers phonics, structure, word recognition, and reading and writing of simple sentences. Math includes addition, subtraction, multiplication, and division of whole numbers. First and second grade reading level. Entrance by appropriate placement tests.

**ABE 012 (15) C,N,S**
ABE Level 1 – Communication Skills
Learn to recognize and comprehend basic sight words and write short, simple sentences using those words. Learn to write the alphabet from memory; write name, address, and phone number and complete simple forms.

**ABE 014 (15) C,N,S**
ABE Level 1 – Computers
Computer lab class to provide students in the ABE program with an opportunity to practice basic skills learned in class or learn new skills independently. Students have access to popular word processing and spreadsheet programs as well as specialized basic skills software. Keyboarding and computer literacy skills are emphasized for those new to personal computers.

**ABE 019 (1-6) C,S**
Intro to Job Skills
Supports basic skills and English as a Second Language (ESL) students engaged in unpaid internships in the workplace. Topics include time management relationships with supervisors and coworkers and work styles. Prereq: ACCT 252 or permission.

**ABE 020 (1-15) C,N,S,V**
ABE Level 2
Covers reading and writing. Review and apply language skills, correct usage and spelling.

**ABE 021 (1-15) C,N,S**
ABE Level 2 – Math
Covers addition, subtraction, multiplication and division of whole numbers.

**ABE 022 (1-15) C,N**
ABE Level 2 – Communication Skills
Learn to participate in groups, recognize learning styles, recall and restate information. Covers reading using simple, familiar materials such as menus, signs, work schedules. Learn writing by completing personal information on forms, copying text and writing in simple sentences.

**ABE 024 (1-15) C,N**
ABE Level 2 – Computers
Computer lab class provides an opportunity to practice basic skills learned in class or learn new skills independently. Use popular computer programs as well as specialized basic skills software. Emphasizes keyboarding and computer literacy skills for those new to personal computers.

**ABE 030 (1-15) C,N,S,V**
ABE Level 3
Concentrates on reading comprehension, making inferences, recognizing fact and opinion, vocabulary development and writing simple paragraphs. Prereq: ABE 020 (N,C) or division placement test.

**ABE 031 (1-15) C,N,S,V**
ABE Level 3 – Math
Review of whole numbers. Concentration on fractions and decimals. Intro to percents. Prereq: ABE 021 or division placement test (N,C).

**ABE 032 (1-15) C,N,S,V**
ABE Level 3 – Communication Skills
Covers reading, writing and communication skills for review of basic grammar, punctuation and spelling. Concentrates on reading comprehension, main idea, vocabulary development, making inferences. Covers single paragraph writing. Prereq: ABE 031 or division placement test (C).

**ABE 034 (1-5) C,S**
Computer Assisted ABE Level 3
More advanced computer-assisted practice in reading, writing and math. Learn from textbooks, fiction, policies and procedures manuals, and purchase agreements. Write resumes, reports and formal letters. Compute percentages, ratios, proportions, simple formulas and interpret graphs and charts.

**ABE 040 (1-15) C,N,S,V**
ABE Level 4
Focuses on reading comprehension, making inferences, recognizing fact and opinion, vocabulary development, basic sentence patterns, paragraphs, punctuation, capitalization and correct word usage. Covers multi-paragraph essays. Prereq: ABE 030 or division placement test (N,C).

**ABE 041 (1-15) C,N,S,V**
ABE Level 4 – Math
Review of ratio and proportion, percents and measurement. Prereq: ABE math level 3 or division placement test (N,C).

**ABE 042 (1-15) C,N,S,V**
ABE Level 4 – Communication Skills
Further development of skills in reading, vocabulary, grammar and multi-paragraph essays. Prereq: ABE 030 or division placement test (N,C).

**ABE 044 (1-15) C,N,S**
ABE Level 4 – Computers
More advanced computer-assisted practice in reading, writing, math and test-taking skills. Instructional activities will improve general reading, writing, math and test-taking skills. Take practice tests and work with instructor until ready to take the college division placement test (C,S). Covers the basics of Microsoft Office applications. Self-paced with a high level of student/teacher interaction (N).

**ABE 049 (1-15) C,N,S,V**
Basic Skills Support Prof/T
Provides specific support to assist students in completing Professional-Technical programs and building job-related language skills. Coreq: Enrollment in a Professional-Technical program.

**ABE 054 (1-15) C,N**
Computer Assisted ABE 5
Use computers to improve basic skills of reading, writing and math. Prepare to take the College Placement Test and receive scores high enough to enter developmental education courses in English and math. Take practice tests and work with instructor until ready for the actual test.
ABE 060 (1-15) C,N,S
**ASE – Asset/Compass Prep**
Preparation to pass exams needed to enter a college program.

ABE 061 (1-15) C,N,S
**ASE – Math Level 6**
Preparation to pass the math portion of the COMPASS exams.

ABE 062 (1-15) C,N,S
**ASE – Communication Level 6**
Preparation to pass the Communications portion of the COMPASS exam needed to enter a college program. Emphasizes effective essay writing, reading college text and adapting to the college culture.

ABE 064 (1-15) C,S
**ASE – Computer Assisted Level 6**
Advanced computer-assisted skill-building in reading, writing, math and test-taking. Prepare for the COMPASS Test. Take practice tests and work with instructor until ready to take the actual test.

ABE 070 (1-3) C,N,S
**ED Interview for ABE/GED**
Helps ABE/GED students at all competency levels identify their current abilities, characteristics, styles and readiness to learn. Intro to campus resources.

ABE 071 (1-3) C
**Educational Planning**
Provides students with information needed for college readiness during enrollment in ABE/GED Math or ABE/GED Communications courses. Prereq: Enrollment in ABE, pre-GED or GED class, placement test score, or instructor permission.

ABE 079 (5) C,N,S
**College Transitional English**
The focus of this class is on the four basic communication skills: reading, writing, listening and speaking. The aim is to prepare students for the 090 level developmental English or ESL classes. The class meets daily, Monday through Friday. Students who enroll as College Transfer will earn 5 credits. Prereq: Students may be referred by intake testing (ASSET or ESL assessment), by counselor or instructor assessment or by self-selection.

**Adult Basic Education High School Completion**

HSC 041 (1-5) N,C,S,V
**Fine Arts Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for fine arts credit toward a high school diploma.

HSC 042 (1-5) C,S,V
**Health Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for health credit toward a high school diploma.

HSC 043 (1-5) C,S,V
**Language Arts Portfolio**
Creation of a portfolio that demonstrates the mastery of the learning outcomes required by the Washington State Board of Education for language arts credit toward a high school diploma.

HSC 044 (1-5) C,S,V
**Lab Science Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for lab science credit toward a high school diploma.

HSC 045 (1-5) C,N,S,V
**Physical Education Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for physical education credit toward a high school diploma.

HSC 046 (1-5) C,S,V
**Math Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for math credit toward a high school diploma.

HSC 047 (1-5) C,N,S,V
**Washington History Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for Washington History and Government. Course completion will fulfill the Washington State graduation requirement of 0.5 high school credit in WA State History and Government.

HSC 048 (1-5) N,V
**Occupational Education Portfolio**
Creation of a portfolio that demonstrates mastery of the learning outcomes required by the Washington State Board of Education for Occupational Education credit toward a high school diploma. Course completion will fulfill the Washington State graduation requirement of 1 high school credit in Occupational Education.

HSC 091 (1-5) C
**EDP Skills Enhancement I**
Assessment portion of the National External Diploma Program (EDP). Measures reading, writing and math skills. Work individually with an instructor to identify skills needed for successful completion of the diploma program. www.nedp.org

HSC 092 (1-5) C
**EDP Skills Enhancement II**
Project portion of the National External Diploma Program (EDP). Working with an instructor, complete five projects that demonstrate skills in 65 generalized competencies, including communication and computation. Demonstrate occupational preparedness by completing a sixth individualized project based on employment or other specific experiences. Must complete these projects with 100% accuracy.

**Aerospace Composite Materials**
Also see Aviation Maintenance Technology, page 250.

ACM 101 (3) S
**Industrial Hygiene**
This course covers the fundamentals of environment, health, and safety topics required to become a successful composites technician. In-depth and specific environment, health, and safety issues, policies, procedures, and regulations are discussed and practiced throughout the composites program. Topics include: hazardous communication, ergonomics, regulations, SOPs, LEAN, personal protective equipment, lockout/tagout, hand and power tool safety, and industrial housekeeping.
Course Descriptions

**ACM 102 (3) S**  
Measurement and Drawings  
This course covers the fundamental skills common in industry related to measurement and drawings. In drawings, the skills include: blueprint views, a working knowledge of the alphabet of lines, tolerances, dimensioning, and drawing 3-D views. In measurement, the skills include: the care and handling of semi-precision and precision instruments, the difference between semi-precision and precision measurement, and the introduction and practice of several measurement instruments.

**ACM 103 (5) S**  
Materials  
In this course, students will learn about the physical and chemical properties of structures; includes uses, strengths, limitations, and other characteristics of metals, alloys, non-metals, and composite materials. Topics include: the terminology and fundamental knowledge of composites, knowledge and skills to work with metal and nonmetallic materials and various forms of hardware, and basic applied physics and chemistry concepts as related to aviation structures.

**ACM 104 (6) S**  
Comp Lab A  
Running parallel with the other General Aviation Certification courses, Technical Laboratory A projects are designed to introduce, reinforce, and practice aspects of many, if not all, of the courses in the General Aviation Certificate. The student will create increasingly complex projects to gain mastery in the materials and processes of the aerospace industry.

**ACM 111 (4) S**  
Composite Fabrication & Tooling  
This course is offered in the second quarter of the Aerospace Composite Technician program. It assumes students have had an introductory overview course that broadly describes composites fabrication, assembly and repair. This course hones the knowledge and skills necessary to inspect, test, and repair composite structures. Emphasis is on structural and nonstructural evaluation, material handling, surface preparation, and repair procedures.

**ACM 112 (2) S**  
Composite Inspection & Repair  
This course is offered in the second quarter of the Composite Technician program. This course presumes that the student has had an introductory overview course that broadly describes composites fabrication, assembly and repair. This course hones the knowledge and skills necessary to inspect, test, and repair composite structures. Emphasis is on structural and nonstructural evaluation, material handling, surface preparation, and repair procedures.

**ACM 114 (9) S**  
Composite Lab B  
This course is offered in the second quarter of the Composite Technician program. The course presumes the student has had an introductory overview course that broadly describes composites fabrication, assembly and repair. Students will create ever more complex projects to gain mastery in the proper use of tools, tooling, materials and processes, prints and drawings, and fabrication, assembly and repair. It runs in tandem with the Composite Fabrication & Tooling course, ACM 111.

**ACM 120 (4) S**  
Composite Fabrication  
Develop skills in print reading, project planning, layout, distortion control, fixtures and other fabrication techniques. Apply knowledge to assigned or personal projects. Prereq: Permission.

**ACM 125 (4) S**  
Composite Assembly  
Identify and use appropriate materials and processes to assemble structures made of composite materials. Lab covers safety of handling resins, reinforcements and related materials. Prereq: Permission.

**ACM 130 (4) S**  
Composite Repair  
Learn to inspect, test and repair composite structures. Emphasizes structural and nonstructural evaluation, material handling, surface preparation, and repair procedures. Prereq: Permission.

**ACM 145 (3) S**  
Special Projects  
Develop further skills in print reading, project planning, layout, distortion control, fixtures and other fabrication techniques through assigned and/or personal projects. Prereq: Permission.

**ACM 198 (1) S**  
Capstone A – Comp  
Capstone A provides the tools, knowledge, and skills to successfully navigate a career in the field of composites. Skills covered are necessary behaviors, habits and documentation necessary to gain employment, navigate an organization, and advanced in this career path. It is taught as a capstone throughout the certification pathway. Topics include industry relevant resumes, transferable job skills, interview skills and more. Capstone A is part one of two capstone courses.

**ACM 199 (2) S**  
Capstone B – Comp  
Capstone B provides the tools, knowledge, and skills to successfully navigate a career in the field of composites. Skills covered are necessary behaviors, habits and documentation necessary to gain employment, navigate an organization, and advanced in this career path. It is taught as a capstone throughout the certification pathway. Topics include industry relevant resumes, transferable job skills, interview skills and more. Capstone B is part two of two capstone courses.

**AHD 100 (1) V**  
Strategies for Success Dental  
Develop study skills for life-long learning, using strategies effective in all classes. Explore lifelong applications of learning that can enhance personal and professional life.

**AHD 150 (1) V**  
Intro to Dental Assisting  
Intro to the field of dentistry and the dental assistant program with emphasis on attendance policy, academic progression, and professional appearance. Covers history of dentistry, dental terminology and the dental healthcare team.
AHD 151 (4) V  Clinical Science I
Learn general anatomy and physiology, structures and functions of the human body, head and neck. Overview of disease processes impacting skeletal, muscular, nervous, cardiovascular, respiratory, digestive, endocrine, urinary, integumentary, and reproductive systems. Covers oral embryology/histology related to prenatal, embryonic, facial and oral cavity development and dentition, tooth life cycle and anatomy.

AHD 152 (4) V  Clinical Science II
Gather diagnostic information from history, clinical and radiographic sources; learn patient assessment for medical and dental emergencies. Covers inflammation, microorganisms, disease transmission and immune system; principles and techniques of disinfection, instrument sterilization; documentation of prescribed medications, controlled and uncontrolled substances. Learn about CDC, OSHA, FDA and EPA.

AHD 153 (1) V  Dental Equipment/Instrument
Learn dental equipment and tray set-ups for basic operative procedures of four/six-hand dentistry. Study pain control and topical anesthetic placement sites for local anesthesia. Chart entries of patient treatment through case studies.

AHD 154 (2) V  Dental Materials
Intro to properties, uses and limitations of dental materials in clinical practice: gypsum, impression pastes, hydrocolloid materials, acrylics, metals; bases, liners and varnishes; amalgams, composite resins, inlays; abrasives, polishing agents and dentifrices; synthetic resins; and thermal conductivity and expansion.

AHD 155 (1.5) V  Clinical Lab I
Intro to a clinical and laboratory setting. Use of rubber dam, matrix/wedge placement and removal on anterior and posterior teeth, mixing temporary cements, liners, bases, varnish and preliminary impressions.

AHD 156 (2) V  Practice Management
Learn dental office procedures including appointment scheduling, accounts receivable, accounts payable, telephone techniques and inventory control.

AHD 157 (2) V  Preventive Dentistry
Intro to patient education, fluoridation, sealants, coronal polishing and nutritional analysis. Covers the dental caries process, early childhood caries, modes of transmission, the periodontium, types of periodontal diseases, stains, plaque, and calculus. Collect nutritional information for dietary analysis.

AHD 160 (10) V  Clinical Procedures I
Intro to clinical dental assistant skills. Interact with dentist, hygienist, peer, and patient. Learn professionalism and effective communication. Covers infection control, instrumentation, 4- and 6-handed dentistry, moisture control, asepsis, vital signs, topical placement, documentation, and computer software.

AHD 161 (4) V  Radiology Science
Covers principles of dental radiology science, and theory, safety, and application of oral radiographic techniques.

AHD 162 (4) V  Radiology Laboratory
Develop radiology proficiency for best possible diagnostic quality. Focuses on intraoral and extraoral radiographs, digital imagery, film duplication, mounting and dark room management. Includes infection control and patient management.

AHD 170 (10) V  Clinical Procedures II
Increase proficiency and time management skills in clinical procedures: composites amalgams, sealants, cavitation, radiology and patient exams. Demonstrate 90% or higher proficiency in all competency exams.

AHD 171 (4) V  Dental Specialties
Practice and demonstrate competency in both general and specialized areas of dentistry, including fixed and removable prosthodontics, endodontics, periodontics, pediatrics, orthodontics, dental implants, oral and maxillofacial surgery.

AHD 172 (4) V  Clinical Laboratory II
Increase skills in general dentistry procedures involving instrumentation, laboratory materials, study models, vacuum-formed thermoplastic resin and dental waxes.

AHD 173 (2) V  Law and Ethics
Covers ethics and law in dentistry: principles and guidelines, confidentiality, and the American Dental Assistant Association professional code of ethics. Examines the legal ramifications of licensing, auxiliary supervision, abandonment, negligence and malpractice suits. Includes treatment modifications for special needs patients.

AHE 103 (3) N  Math for Health Careers
For those entering health care medical programs. Review basic arithmetic and algebra and apply concepts to health care of children and adults. Covers decimal and fractional numbers, ratios, percents and basic algebra techniques to solve equations involving unknowns and proportions. Prereq: MATH 083 or placement into MATH 084 and permission. Recommended: ENGL& 101.

AHE 104 (9) S  Medical Office Procedures and Documents
Learn administrative skills and procedures using MS Office Suite and keyboarding, including creating patient medical documents. Includes appointment processing, written and oral communications, medical records management, filing systems, office environment and patient education. Prereq: Typing 35 wpm, CASAS Reading score of 220 and basic skills in Microsoft Office Suite.
**Course Descriptions**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Credits</th>
<th>Type</th>
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<tbody>
<tr>
<td>AHE 105</td>
<td>(10) S</td>
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<tr>
<td><strong>Medical Term Ins Bill Coding</strong></td>
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<tr>
<td>Includes medical terms, therapeutic interventions, pharmacology and surgical terms. Intro to medical insurance processing, coding, claims and the use of Medisoft for invoicing and scheduling for ambulatory care settings, dental offices and hospitals. Prereq: Typing 35 wpm, CASAS Reading score of 220 and basic skills in Microsoft Office Suite.</td>
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</tbody>
</table>

| AHE 106       | (3) S   |      |
| **Math for Healthcare** |         |      |
| Students will learn basic computations with fractions and decimals, ratio and proportion, percentage, measurement systems, diluting of solutions, graphs, dosage and concentration problems, and basic algebra and statistics. |         |      |

| AHE 110       | (4) C,N,S |      |
| **Medical Orientation** |         |      |
| Standards of conduct and responsibilities in medical legal, ethical, and bioethical issues. |         |      |

| AHE 111       | (12) C  |      |
| **Nursing Assistant Certified** |         |      |
| Covers instruction and hands-on experience in basic nursing care skills and supervised clinical training in a long-term care facility. Preparation for WA State Nursing Assistant Certified examination. Current Healthcare CPR, First Aid and HIV/AIDS are required prior to clinical, and are scheduled as separate courses. |         |      |

| AHE 113       | (15) C,S |      |
| **Nursing Assistant** |         |      |
| This course provides instruction and hands-on experience in basic nursing care skills including First Aid, CPR, and HIV/AIDS and supervised clinical training in a long-term care facility. Instruction will also be provided in student success and career transition skills. After successful completion of the Nursing Assistant Program, students are eligible to sit for the State of Washington NAC exam for certification as a Nurse Assistant. |         |      |

| AHE 117       | (1) C   |      |
| **Medical Terminology I** |         |      |
| Intro to medical terminology. Emphasizes vocabulary and knowledge to communicate with health care team. Prereq: Enrollment in Surgical Technology. |         |      |

| AHE 118       | (5) N   |      |
| **Intro to Phlebotomy I** |         |      |
| Provides theory of basic blood collection techniques and supervised blood collection practice. Provides support for ESL and Adult Basic Education students. |         |      |

| AHE 119       | (7) N   |      |
| **Intro to Phlebotomy II** |         |      |
| Provides theory of basic blood collection techniques, supervised blood collection practice and a clinical externship of 120 hours. Provides support for ESL and Adult Basic Education students. |         |      |

| AHE 120       | (4) C,N,S |      |
| **Computers in Medical Office** |         |      |
| Introduction to computer applications within a medical office. Concepts of PC/DOS, basic word processing, and data entry procedures will be taught. There will be opportunity to practice concepts learned, through planned exercises. |         |      |

| AHE 124       | (4) S   |      |
| **Software Apps for Health** |         |      |
| Learn Patient Accounting Software. Features include standard HCFA health insurance claims forms, diagnoses codes, patient ledgers, statements, patient appointment book and specialized reporting. Coreq: AHE 130. |         |      |

| AHE 125       | (2) C   |      |
| **Essential Skills Health** |         |      |
| Learn core skills applicable to all health disciplines. Each healthcare program chooses which modules are required. |         |      |

| AHE 126       | (1) C   |      |
| **Medical Terminology II** |         |      |
| Continuation of AHE 117. Terminology of the circulatory/lymphatic, urinary, reproductive and musculoskeletal systems and their pathophysiology. Prereq: Enrollment in Surgical Technology. |         |      |

| AHE 127       | (4) C   |      |
| **Intro to Healthcare** |         |      |
| Covers elements of professionalism, ethical principles and basic assessment techniques for allied health practitioners in Washington state. Includes role of the healthcare practitioner, health history taking, vital signs assessment, patient management and infection control. |         |      |

| AHE 128       | (1) C   |      |
| **Medical Terminology III** |         |      |
| Continuation of AHE 127. Terminology of the gastrointestinal, integumentary, endocrine, nervous systems and their pathophysiology. Prereq: Enrollment in Surgical Technology. |         |      |

| AHE 129       | (1) C   |      |
| **Intro Healthcare Applied Practice** |         |      |
| Covers professionalism, ethical principles and basic assessment techniques, including patient health history, vital signs assessment, patient management, infection control, and the role of the healthcare auxiliary. |         |      |

| AHE 130       | (5) S   |      |
| **Medical Insurance I** |         |      |
| Covers basic diagnosis and procedural coding, ICD-9 and 10 (International Classification of Diseases) and the CPT (Current Procedural Terminology) coding systems recognized by the insurance industry. Course includes medical office insurance processing for billing and reimbursement, documentation, information flow, insurance forms and medical office policies. Course is part of two insurance courses. AHE 131 follows this course. Prereq: BUS 169, or Instructor Permission. Coreq: AHE 124. |         |      |

| AHE 131       | (3) S   |      |
| **Medical Insurance II** |         |      |
| Course is a topic continuation of AHE 130. Students will use ICD-9 and 10 (International Classification of Diseases) and the CPT (Current Procedural Terminology) coding systems to code insurance claims for the insurance industry, the physician, and medical office as the standard for billing and reimbursement. Insurance processing topics covered will include documentation, information flow, insurance forms, and medical office policies. Prereq: AHE 130. |         |      |

| AHE 135       | (15) S  |      |
| **Home Care Aide** |         |      |
| This is a one quarter short term training course. The course runs as a cohort and covers 85 hours of learning and skills objectives mandated by WA State for Home Care Aides. Includes context-related basic skills, such as reading and study strategies, math, and oral communication. The course prepares students for success in passing the State of Washington Department of Health Home Care Aide examination, and is a step in continuing to Nursing Assistant Certified and health-related courses. Prereq: Permission. |         |      |

| AHE 137       | (1) C   |      |
| **Medical Terminology IV** |         |      |
| Continuation of AHE 127. Terminology of the respiratory, integumentary, endocrine, nervous systems and their pathophysiology. Prereq: Enrollment in Surgical Technology. |         |      |

| AHE 140       | (10) C  |      |
| **Central Supply/Instrument Technician** |         |      |
| For students interested in being a certified Central Supply/Instrument Technician. Addresses infection control, supplying and processing and distribution of supplies. Gain knowledge in safety, inventories, interpersonal skills, communication, interdisciplinary teams, professionalism and ethics. |         |      |
**AHE 141 (2) S**
Pharmacology I
Intro to pharmacology. Includes medication laws, classifications, safety, medication effects and responses, pharmaceutical abbreviations, systems of measurement and safe dosage calculations.

**AHE 143 (4) S**
Medical Terminology & A/P I
This course provides the medical terminology and an analytical look at the human body’s structure and functions as it relates to diseases, disease process and specifically coding for diseases and procedures. This course is developed specifically for coding professionals and is not meant for those entering nursing or the sciences. This course does not include a clinical science lab.

**AHE 144 (4) S**
Medical Terminology & A/P II
This course is a continuation of AHE 143 but can be taken out of sequence. It covers the medical terminology and an analytical look at the human body’s structure and functions as it relates to diseases, disease process and specifically coding for diseases and procedures. The systems covered are distinct from those covered in AHE 143. This course is specifically for coding professionals and is not meant for those entering nursing or the sciences. It does not include a clinical science lab.

**AHE 145 (4) S**
Medical Document Processing
Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.

**AHE 146 (5) S**
ICD Coding
Covers ICD-9-CM and ICD-10 diagnostic coding. Apply the numeric classification of codes to diseases and injuries, symptoms, disorders and for therapeutic interactions, using various source documents. Coding is used for billing, electronic health records, and HIPAA privacy. Prereq: AHE 130 or permission.

**AHE 147 (5) S**
CPT Coding
Learn appropriate service codes and methods for service and surgery: consultations, office visits, anesthesia, and specific surgeries. Apply CPT and HCPCS codes to medical data and records. Prereq: AHE 130 or permission.

**AHE 148 (3) S**
Human Diseases I
Students will learn basic disease concepts, including mechanisms of disease, neoplasms, inflammation and infection. Students will acquire knowledge of common diseases, disorders, symptoms and injuries by each body system as it relates to coding for diagnoses and procedures in healthcare.

**AHE 150 (0.5) C**
HIV/AIDS Education
Meets requirements for health care professionals under RCW 18.130. Covers etiology and epidemiology of HIV, transmission and infection control, testing and counseling, clinical manifestations and treatment and psychosocial issues. Approved by the Washington State Department of Licensing.

**AHE 151 (1) C**
Standard Precautions/FA
Covers blood-borne pathogens and infections that students may be exposed to in the health care setting, methods of prevention, and regulations surrounding workplace safety. Learn about equipment and supplies and practice using them.

**AHE 152 (1) C**
Health Care Provider CPR
American Heart Association Certificate
Health Care Provider CPR is for those in or entering health care with patient contact. Covers skills competency for infant, child and adult CPR that might be needed in the professional health care setting. Certificate awarded upon completion. Prereq: Permission.

**AHE 155 (1-6) N**
Special Topic Medical Assistant
Designed to meet the special needs of individuals or groups studying in the medical assisting field.

**AHE 165 (3) C**
Medical Terminology I
Fundamentals of medical terminology, with emphasis on basic rules, vocabulary building, abbreviations and knowledge of medical terms relating to body systems and medical specialties.

**AHE 166 (3) C**
Medical Terminology II
Continuation of AHE 165. Prereq: AHE 165.

**AHE 167 (3) C**
Medical Terminology III
A continuation of AHE 166. Prereq: AHE 166

**AHE 168 (5) S**
Medical Terminology
Intro to the concept of word building with Greek and Latin word roots, prefixes and suffixes, resulting in the acquisition of a large medical vocabulary. Also available as a correspondence course.

**AHE 170 (1) S**
HIV/Blood Borne Pathogen
Covers the principles of disease transmission in compliance with OSHA Standard 2001 and the Washington State AIDS Omnibus Law for Health Care Providers Requiring Seven Hours of HIV/AIDS Education. Includes occurrence and spread of infection, exposure control plan and use of personal protective equipment. Examines employer and employee responsibilities, guidelines for environmental infection control for health care facilities, exposure incidents and needle stick safety and prevention.

**AHE 171 (4) S**
Medical Excel
This course in Microsoft Excel for Health Care Occupations is a spreadsheet program you can use to manipulate numbers, track and chart medical sales, expenses, medical budgets help make informed medical business decisions. Students will learn to use calculations and pre-defined formulas to organize data, crunch statistical information, and more.

**AHE 172 (4) S**
Word for Healthcare
Covers comprehensive word processing using Microsoft Word Software for a Medical environment. Includes basic skills such as tables, envelopes, templates and mail merge. Includes advanced formatting skills and transcribing medical documents such as operative reports, radiology reports, discharge summaries, H&P reports and other medical documents and forms.
AHE 173 (3) S
Medical Records Management
The study of the basic alphabetic, numeric, subject and geographic filing principles necessary to manage database filing systems utilizing ARMA rules. Course includes hands-on practice in creating and using database systems to create files, tables, forms and queries; enter and manipulate data and generate reports for a medical environment.

AHE 190 (12) N
Emergency Medical Technician
Provides training in pre-hospital emergency care. Follows State of Washington law and King County EMS. Coreq: AHE 192.

AHE 191 (1-5) N
Emergency Response
Provides continuing education for EMTs to meet annual requirements for recertification.

AHE 192 (1) N
BLS for Healthcare Providers
The American Heart Association BLS curriculum is the standard training for healthcare agencies/personnel. It meets the requirements for CPR certification and includes CPR for Adults, Children and Infants, AED (Automatic Defibrillation) and use of the Bag Valve Mask. For those in EMT program, this is a corequisite with AHE 190.

AHE 194 (4) N
EMT Refresher
Continued training in emergency care for those who have previously passed the initial training but have not been State or National Registry Certified, or for those whose certification has expired by less than three years.

AHE 197 (1-5) C,N,S
Work Experience: Allied Health
Allows students to gain work experience directly related to their major of study. Provides participating students with supervised work experience in an individualized learning environment. Prereq: Employment in field.

AHE 198 (1-5) C,N,S
Work Experience: Allied Health
Integrates classroom study with employment. Based on principle that one learns not only through academic achievement but also through practical experience. Prereq: permission.

AHE 199 (1-5) C,N,S
Work Experience: Allied Health
Allows students to gain work experience in Allied Health field. Integrates classroom study with employment. Prereq: permission

AHE 202 (1) C
RC Orient Intro to the Respiratory Care Program
Covers curriculum, policy, clinical procedures, professional outlook and study and library skills.

AHE 209 (2) C
Intro Respiratory Care
Explores the respiratory care profession. Focuses on historical development and the role of the respiratory care practitioner. Emphasis on professionalism, ethical thought, death and dying, and working in a multicultural environment.

AHE 213 (2) C
RC Clinical Assessment
This course is a study of the concepts and principles by which disease alters the normal function of the cardiopulmonary system. The main emphasis will be on cardiopulmonary assessment. Students will learn to analyze clinical data and synthesize patient case data into a formal assessment. Further emphasis will be placed on development of logic and reasoning for an advanced Respiratory Care Practitioner (RCP). Prereq: Permission.

AHE 215 (2) C
Pharm Basic Respiratory Care Pharmacology
Introduces the learner to foundational principles of the study of pharmacology. Learners will also begin their study of pharmacologic agents with medications used universally in Respiratory Care to treat primary respiratory disorders. This course is directed at adding to the learner’s knowledge of respiratory care and the performance of the skills needed to safely deliver medications as adjuncts to the delivery of Respiratory Care. Prereq: Permission.

AHE 217 (5) C
CP&P
This course is designed to provide an in-depth investigation into the structure and function of the respiratory and cardiovascular systems of the human body. The interdependence of the two systems will be emphasized and the physiology of respiration will be examined in detail. Also covers multiple body systems and their interplay with the respiratory system under normal and abnormal conditions. Prereq: Permission.

AHE 218 (4) C
BASTHAP
This course is an introduction to the procedures used to assess and treat common respiratory diseases. Emphasis is on knowledge and skills necessary to safely and effectively apply patient assessment techniques; body mechanics, medical gas therapy, oxygen therapy devices, aerosol and humidity therapy, hyperinflation therapy, chest physiotherapy, and airway clearance techniques. Prereq: Permission.

AHE 219 (1) C
BTAE&T
An introduction to the application of Respiratory Care therapeutics learned in RCP 218. In this class learners will apply theory acquired in RCP 218 using models, simulation and laboratory partners for practice. Focuses on assessment, documentation, communication, medical gas and aerosol therapy, airway clearance, and hyperinflation therapies. Prereq: Permission.

AHE 232 (5) N
Intro Clinical Software
Review of health Information systems including clinical information systems and administrative information systems, enterprise health information systems, reports queries, databases, interfaces, integrated systems, and modules.

AHE 233 (5) N
Intro Health Informatics
Intro to health informatics including definitions, theory, technologies, workflow and expectations in the informatics field, tools, and professional organizations.

AHE 234 (5) N
HIPAA Network Security
Review HIPAA Regulations and Guidelines, basic IT network security, the Electronic Medical Record and intro to health informatics.

AHE 242 (2) N
Basic Blood Collection
Theory and laboratory practice in supervised blood collection to meet requirements for job entry as a phlebotomist (blood drawer). Prereq: Take or placement into ENG& 101.

AHE 243 (4) S
Healthcare Law
This course provides an overview of law and ethics in the healthcare system. Students will gain advanced knowledge of patient, healthcare laws and ethics related to EDI.
Advanced Electronic Health Records (AHE 244, 4 credit hours, Spring)
This course provides intermediate and advanced functionality and features of Electronic Health Records (EHR) with an overview of health information systems used to identify, file, and store patient health information, clinic administration, the patient chart, office visit, and clinical tools, such as customizing templates, tests, procedures and diagnosis codes, productivity and utilities.

Clinical Coding (AHE 246, 7 credit hours, Spring)
This course is intended to develop the advanced medical coding for the purposes of medical record coding, hospital coding, and applying advanced coding principles to medical situations, and clinical reports.

Allied Health Seminar (AHE 299, 1-3 credit hours, C, N, S)
Seminar format to address current trends and issues in allied health occupations.

Principles of Healthcare Delivery (AHE 301, 5 credit hours, Fall)
Introduction to U.S. healthcare delivery topics such as purpose, history, components, organization, strengths and weaknesses, and proposed and implemented reforms. Covers current and future challenges of healthcare delivery and the development of healthcare policies to address these challenges. Prerequisite: Permission.

Information Literacy Health (AHE 330, 5 credit hours, Fall)
Introduction to the organization, retrieval, and evaluation of electronic and print information. Overview of college library systems, traditional scholarly resources, and the concepts underlying the research process. Emphasis on information literacy skills specific to the allied health sciences through examination and application of specialized resources. Prerequisite: Enrollment in a B.A.S. in Allied Health track: ENGL & 102, MATH & 146.

Principles of Research (AHE 401, 5 credit hours, Spring)
General principles of research design and methodology with emphasis on applications for allied health practice. Prerequisite: Permission.

Strategies for Success (AHL 100, 1 credit hour, Fall)
Students learn health care and educational success strategies for lifelong learning. Assessment and skill development activities focus on goal setting, self-management, positive image building and leadership qualities.

CPR/First Aid (AHL 101, 0.5 credit hour, Fall)
This course is designed to provide health care professionals with the ability to administer Cardiopulmonary Resuscitation (CPR) for infants, children and adults, utilize an automated external defibrillator (AED) and alleviate choking. Upon successful completion, students receive certificates in Healthcare Provider Basic Life Support (BLS) and Heartsaver First Aid issued by the American Heart Association. Prerequisite: Permission.

CPR/First Aid (AHL 102, 0.5 credit hour, Spring)
This course is designed to teach Cardiopulmonary Resuscitation (CPR), First Aid (FA), relief of Foreign Body Airway Obstruction (FBAO) and how to operate the Automated External Defibrillator (AED) to all lay rescuers, particularly those expected to respond to emergencies in the workplace. Successful completion will qualify the participant for an American Heart Association Heartsaver First Aid/CPR/AED course completion card.

HIV/AIDS Training (AHL 105, 0.5 credit hour, Spring)
The HIV/AIDS course is designed to meet the seven hour requirement for healthcare workers in Washington State. The course includes a focus on epidemiology, blood borne pathogens, clinical manifestations, at risk populations, psychological impact, transmission of disease, risks to healthcare workers, patient education, health promotion and disease prevention. Prerequisite: Permission.

Anatomy & Physiology I/Micro (AHL 111, 6 credit hours, Fall)
This course focuses on the structure/function of the human body and systems: tissues and membranes, skeletal, muscular, and nervous. Emphasis includes microbiology, disease processes relative to major conditions, infectious diseases, neoplastic conditions, and congenital diseases.

Anatomy & Physiology II/Micro (AHL 112, 6 credit hours, Spring)
Continuation of AHL 111, Anatomy and Physiology I with a focus on the following structures/functions of the human body and systems: respiratory, digestive, cardiovascular, lymphatic, reproductive, and urinary. Emphasis includes disease processes relative to major conditions, infectious diseases, neoplastic conditions, and congenital diseases. Prerequisite: Permission.

Medical Terminology (AHL 113, 3 credit hours, Fall)
Offers instruction relative to the language of medicine. Focuses on basic word parts (prefixes, roots, suffixes), definitions, pronunciation, spelling, abbreviations, acronyms, symbols, eponyms and terminology for diagnostic testing and medical procedures corresponding to the structures/functions of the human body and systems studied in Anatomy & Physiology AHL 111: tissues and membranes, skeletal, muscular, and nervous. Prerequisite: Permission; Corequisite: AHL 111.

Medical Terminology II (AHL 114, 3 credit hours, Spring)
Continued instruction in the language of medicine. Focuses on basic word parts (prefixes, roots, suffixes), definitions, pronunciation, spelling, abbreviations, acronyms, symbols, eponyms and terminology for diagnostic testing and medical procedures corresponding to the structures/functions of the human body and systems studied in Anatomy & Physiology AHL 112: respiratory, digestive, cardiovascular, lymphatic, reproductive, and urinary. Prerequisite: AHL 113 or Permission; Corequisite: AHL 112.

Insurance & Coding (AHL 123, 3 credit hours, Fall)
Offers instruction in the areas of health insurance and numeric/alphabetic numeric codes utilized in health care for the purpose of maintaining accurate medical records and ensuring efficient claims processes. Emphasis is placed upon various types of health insurance and the individuals they serve, diagnostic and procedural code identification/utilization, and the Health Information Privacy and Accountability Act (HIPAA). Prerequisite: Permission.

Medical Office Finance (AHL 124, 2 credit hours, Spring)
Covers financial accounting aspects of medical practice and relative duties in this area of responsibility. Emphasis is placed upon vocabulary and abbreviations relative to bookkeeping and accounting, accounts receivable, collection procedures and basic concepts in Microsoft Excel. Prerequisite: Permission.

Medical Office Simulation (AHL 125, 2 credit hours, Fall)
Covers front office procedures and provides students with opportunities to apply their administrative knowledge within a simulated medical office setting. Students demonstrate their competency through prescribed scenarios focusing on customer service, reception, scheduling, referrals, billing procedures, insurance processes, critical thinking, and working toward positive outcomes. Prerequisite: Permission.
<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>V</th>
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<tbody>
<tr>
<td><strong>AHL 126</strong></td>
<td>(2)</td>
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<tr>
<td>Reception &amp; Scheduling/Medical Records</td>
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<td>Covers medical front office reception, admission and discharge procedures and provides students with opportunities to acquire administrative knowledge of the medical front office. Students demonstrate their competency through prescribed scenarios focusing on customer service, reception, scheduling, medical record management, critical thinking, and working toward positive outcomes. Prereq: Permission.</td>
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<tr>
<td><strong>AHL 127</strong></td>
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<tr>
<td>Electronic Health Records</td>
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<td>This course focuses on the skills and techniques required for the clinical and administrative functions of a medical assistant in an ambulatory care setting relative to electronic health records. Emphasis is placed on patient confidentiality and HIPAA requirements. The electronic health records course includes criteria established by the Office of the National Coordinator for Health Information Technology under the provisions of the American Recovery and Reinvestment of 2009. Prereq: AHL113.</td>
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<tr>
<td><strong>AHL 128</strong></td>
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<tr>
<td>Law &amp; Ethics</td>
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<td>The Law and Ethics course addresses legal and ethical matters relative to the allied health profession/professional and includes HIPAA regulations and how they are applied in a clinical setting. Patient advocacy, patient rights, the impact of the American Medical Association Council, cultural, social, ethnic diversity in ethical performance, tort law, scope of practice, informed consent as well as various laws and agencies relative to health care are included in this course. Prereq: Permission.</td>
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<td><strong>AHL 142</strong></td>
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<tr>
<td>Medical Insurance Billing</td>
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<td>Covers insurance and the electronic billing process and provides students with opportunities to apply their knowledge within a simulated medical office setting. Students demonstrate their competency through prescribed scenarios focusing on guidelines for specific insurance types and their billing requirements/processes, customer service, insurance processes, critical thinking, and working toward positive outcomes. Prereq: Permission.</td>
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<tr>
<td><strong>AHL 143</strong></td>
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<tr>
<td>Medical Computer Application</td>
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<td>Become familiar with computerized account and information management for the medical office. Develop skills necessary to successfully use computerized software in a medical office setting. Patient records, patient billing, insurance coding and other medical office information is managed through the use of computer software. Reports are generated to summarize and facilitate medical office decisions.</td>
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<tr>
<td><strong>AHL 145</strong></td>
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<td>Electrocardiogram (EKG) Technician</td>
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<td>The Electrocardiogram Technician interacts directly with patients and performs diagnostic testing that monitors and records the activity of the heart. EKG Technicians work under the direction of a provider and/or clinical supervisor in a variety of clinical settings. The contents of this course includes anatomy and physiology, medical terminology, obtaining a 12 lead electrocardiogram, responding to and assisting providers with electrocardiogram requests in emergent and non-emergent situations.</td>
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<td><strong>AHL 149</strong></td>
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<tr>
<td>Emergency Preparedness</td>
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<td>This competency-based course focuses on the skills, techniques and professionalism required for Medical Assistants relative to emergency preparedness and assisting with emergencies in an ambulatory care setting while working collaboratively with medical professionals and caring for patients.</td>
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<td><strong>AHL 155</strong></td>
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<td>Pharmacology</td>
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<tr>
<td>Encompasses the language of pharmacology, abbreviations, controlled substances act, drug dependency and prescriptions. Includes medication supply, patient care applications, drug classifications and interactions, safety, and routes of administration. Covers learning of skills needed to administer oral medication, calculate dosages, and prepare injections. Prereq: Permission.</td>
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</tr>
<tr>
<td><strong>AHL 161</strong></td>
<td>(3)</td>
<td>V</td>
</tr>
<tr>
<td>Clinical I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focuses on the skills, techniques and professionalism required in the educational process of Medical Assistants preparing to work collaboratively with medical professionals while caring for patients and interacting with family representatives of diverse communities. Prereq: Permission.</td>
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<tr>
<td><strong>AHL 180</strong></td>
<td>(8)</td>
<td>V</td>
</tr>
<tr>
<td>Clinical II</td>
<td></td>
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<tr>
<td>Upholds a professional environment within a simulated clinic setting while focusing on non-invasive procedures. Includes wound care, ear lavage/irrigation, respiratory treatments, identification and use of surgical instruments, sterilization processes, set up/break down for minor procedures, patient positioning, assisting the provider, documentation, diagnostic imaging, nutrition, gender specific procedures, and pediatric procedures/interaction. Prereq: Permission.</td>
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<tr>
<td><strong>AHL 183</strong></td>
<td>(8)</td>
<td>V</td>
</tr>
<tr>
<td>Clinical III</td>
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<tr>
<td>Upholds a professional environment within a simulated clinic setting while focusing on invasive procedures. Medication administration through variable routes including injection, intravenous therapy, medication calculation, phlebotomy, waived laboratory tests, specimen integrity, handling and transport, safe clinical practices and effective patient documentation are included. Prereq: Permission; Coreq: AHL 161.</td>
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<tr>
<td><strong>AHL 189</strong></td>
<td>(1)</td>
<td>V</td>
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<tr>
<td>Medical Assistant National Exam Prep</td>
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<tr>
<td>This course provides an opportunity for Medical Assistants in the process of program completion or who have completed a Medical Assistant program and have not pursued certification to prepare to sit for a national certification examination through the administering agency of their choice. Students will utilize knowledge they have acquired throughout a Medical Assistant program and/or work experience.</td>
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<tr>
<td><strong>AHL 190</strong></td>
<td>(6)</td>
<td>V</td>
</tr>
<tr>
<td>Emergency Preparedness</td>
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<tr>
<td>This competency-based course focuses on the skills, techniques and professionalism required for Medical Assistants relative to emergency preparedness and assisting with emergencies in an ambulatory care setting while working collaboratively with medical professionals and caring for patients.</td>
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<tr>
<td><strong>AHL 192</strong></td>
<td>(5)</td>
<td>V</td>
</tr>
<tr>
<td>Medical Assistant Practicum</td>
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<tr>
<td>This course satisfies the requirement for an unpaid practicum/externship in clinical practice under direct supervision in an ambulatory care clinic setting. Practicum opportunities are decided through a competitive interview process. The acceptance to a clinic is a part of the educational process of the Medical Assistant program and does not imply or guarantee employment at the practicum site. Prereq: Permission.</td>
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</tr>
</tbody>
</table>
Course Descriptions

FINDING COURSES
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN . . . . . . . . Watch Technology
NAME TO PREFIX
Watch Technology . . . . . . . . . HIN
Common Course Numbering explanation is on page 224.

Allied Health
Community Health Education (B.A.S.)
CHED 301 (5) C
Principles of Community Health
Introduces students to terms, concepts, theories, methods and resources which are related to community and public health issues and designed to improve the health of populations in the United States. Focuses on the role of healthcare workers in various community health settings and organized activities. Emphasis on principals that meet the national standard of practice for all health education specialists.

CHED 304 (5) C
Principles of Higher Ed in Allied Health
This course reviews adult learning theory, emphasizing practical skills for successful post-secondary teachers and trainers in allied health disciplines. Topics include development of course outlines and syllabi, learning objectives, teaching methods, experiential and non-experiential learning, clinical skills development strategies, professional presentation skills and assessment.

Allied Health
Community Service, Cooperative Ed (B.A.S.)
CMS 197 (3) C
Community Service
Provides students with an opportunity to experience volunteerism as a central component of life while enhancing academic and career goals.

CMS 198 (3) C
Community Service
Utilizes cooperative education to enable students to experience their commitment to the community. Provides an opportunity for both personal and professional growth, engages students in responsible and challenging actions for the common good, structures opportunities for research and reflection of their experience, involves supervision, monitoring, support, recognition and evaluation to meet course goals and offers participation by and with diverse populations and agencies. Prereq: none.

CMS 199 (3) C
Community Service
Provides an opportunity for both personal and professional growth, engages students in responsible and challenging actions for the common good, structures opportunities for research and reflection of their experience, involves supervision, monitoring, support, recognition and evaluation to meet course goals and offers participation by and with diverse populations and agencies. Prereq: none.

Allied Health
Healthcare Services Management
HSM 301 (5) C
Principles of Healthcare Services Management
Covers basic managerial functions of healthcare services such as planning, organizing, leading, and controlling resources to accomplish organizational goals. Prereq: Permission.

HSM 311 (5) C
Principles of Healthcare Management
Covers basic managerial functions of healthcare services such as planning, organizing, leading, and controlling resources to accomplish organizational goals. Prereq: Permission.

American Ethnics Studies
AME 150 (5) C,N,S
America’s Ethnics History
Intro to U.S. history as a multicultural phenomenon. Emphasizes the interaction of American Indian, African, European, Latino and Asian immigrants in the development of the U.S. Focuses on conflict and cooperation in the areas of economics, politics and culture.

AME 151 (5) C,N,S
Societies & Cultures: U.S.
Intro to contemporary issues in American ethnic and race relations. Emphasizes racism, prejudice, stereotypes and equity issues through an examination of Asian, African and Indigenous Americans. Focuses on diversity of interests and identities within each community.

AME 160 (1-5) C
Special Topics in Multicultural Studies
Intro to the continuum of social justice issues that emphasize the role of multicultural collaboration in the establishment and securing of democracy and democratic practice. Considers the forces shaping social change past and present; the role of the individual (change agent); and the personal characteristics and skills required of change agents.

AME 200 (5) N
Leadership & Social Change
Examines issues raised by civil rights struggles in the United States. Covers the forces shaping social change, the role of the individual (change agent); and the personal characteristics and skills required of change agents. Incorporates community service as a central teaching technique.

AME 201 (5) C,S
Diversity & Social Justice
Combines theoretical frameworks, practical issues and experiential activities to help students develop skills and identify plans of action in eradicating the multiple forms of social oppression. Use critical analysis as an investigative tool to examine racism, sexism, heterosexism, ableism, classism, religious oppression and aspects of internalized oppression.

American Sign Language
See Languages & Literature, page 318.

Anthropology
ANTH & 100 (5) C,N,S
Survey of Anthropology
Intro to the field of anthropology. Covers biological and cultural anthropology, linguistics and archaeology. Survey of humans over time and space. Includes evolution, ethics, political structure, social structure, economics and communication.
### ANTH 106 (5) C,N  
**American Mosaic**
Examines American culture, implications and consequences through the anthropological lens. Includes race, ethnicity, class, religion, sex, gender and ability. Explores individual experiences and structural patterns. Provides an insightful look at ourselves from anthropological and sociological perspectives. Field trips. May be taken as SOC 102.

### ANTH 113 (5) C,N  
**Africa**
A survey of cultures, languages and social diversities of Africa south of the Sahara. Examines Africa’s role in the contemporary world.

### ANTH 125 (5) C,N  
**Human Variation**
Covers past and present evolutionary forces contributing to variations in human populations. Investigates the biological and social concepts of race.

### ANTH 130 (1-5) C,N  
**World Cultures**
Exploration of global cultural variation and traditions in the modern context of international capitalism. Using ethnographic approaches informed by the ideas of cultural relativism and transculturation, considers both Western and non-Western cultures as well as indigenous and industrialized cultures. Prereq: ENGL 101 with a minimum grade of 2.0.

### ANTH 135 (3-5) C  
**Intro Environmental Anthropology**
Intro to the relationship between cultures and environments. Explore how humans interact with, adapt to, extract resources from, and modify the environment. Looks at the dynamic between “traditional” and “modern” societies.

### ANTH 201 (5) C  
**Contemporary Issues in Anthropology**
Analysis of current research on a particular topic in cultural or physical anthropology. Topic varies by quarter; check with instructor for specific course content.

### ANTH 204 (5) C,N  
**Archaeology**
Introduction to the history, methods, and theories of archaeology. Trace and explain the principal lines of cultural evolution in the Old and New Worlds. Discuss the importance of cultural resource management and public understanding and involvement. Prereq: ENGL 101 with a minimum grade of 2.0 (C).

### ANTH 205 (5) C,N  
**Biological Anthropology**
Intro to biological and cultural evolution of humans with evidence from fossil and contemporary populations. Examines physical and biological variations of humans past and present. Emphasis on developing a working vocabulary of anthropological terms.

### ANTH 206 (5) C,N,S  
**Cultural Anthropology**
Intro to human culture, including social organization, economics, political systems, religion, technology, values, art and language. Cultural perspective focuses on contemporary literate and pre-literate societies and includes both Western and non-Western ways of life.

### ANTH 212 (3) N  
**East African Archeological Research**
Intro to paleo-anthropological research in East Africa in “digging up” hominin evolutionary past. Analyze archeological remains. Observe terrain and type of environment occupied by early hominid. Discuss patterns of tool manufacture and use. Lectures and field participation at actual archeological sites in Kenya, East Africa (Koobi, Fora, Lake Turkana).

### ANTH 213 (3) N  
**East African Hominid Evolution**
Surveys origin and relations of the extinct forms of humankind that have been discovered in East Africa. Review of some of the earliest hominids of the late Cenozoic Era through the present. Focuses on the biocultural stages of evolution to modern hominid. Includes lectures and field sessions on site in Kenya, East Africa.

### ANTH 227 (5) S  
**Pacific Island Cultures**
Intro to cultures and peoples of the Pacific region known as Oceania, including origins of indigenous Pacific Islanders, the trajectory of cultural changes caused by Euro-American contact, the mass migration and formation of Pacific Islander communities and networks throughout the diaspora. Emphasizes contemporary Pacific Islander cultures and communities. Prereq: Eligibility for ENGL 098.

### ANTH 228 (5) C,N  
**Cultures of Middle East**
Multidisciplinary intro to Middle Eastern cultures including social, economic, political and religious factors contributing to the region’s diversity. Exploration of historical and contemporary forces and changing interpretations by both Westerners and Middle Easterners. Prereq: English 101 with a minimum grade of 2.0.

### ANTH 250 (5) C  
**Applied Social Change**
Explores social and cultural change historically and comparatively through an anthropological lens. Moves quickly from theory to practice to empower students to create effective and inspiring change-making actions. Change on an individual and structural level are addressed. Intrapersonal and interpersonal awareness are achieved through the practice of various life skills and humanization skills. Prereq: English 101 with a minimum grade of 2.0.

### ANTH 275 (5) C,N  
**Medical Anthropology**
Explores culture, society, medicine and health from a global perspective. Examines biomedical and cross-cultural perspectives of the human body, life, death, well-being and healing.

### ANTH 298 (1-5) C,N,S  
**Special Topics/Anthropology**
Independent study or fieldwork in anthropology. Periodic meetings with instructor. Prereq: Permission.

### ANTH 299 (1-5) C,N  
**Special Problems/Anthropology**
Small group setting to cover selected topics in anthropology. Prereq: Permission.

### Apparel Design & Development
Courses above 100 require completion of all entry requirements to the School of Apparel Design & Development.
**APPRL 096 (2) C**

**AD&D Skill Development 1**

For students preparing to enroll in the School of Apparel Design & Development who have little or no sewing or patternmaking experience. Introduction to sewing terms, commercial and production pattern development, layout and cutting, industrial sewing machine operation, and professional construction techniques for basic garments and samples. Prereq: Eligibility ENGL& 101.

**APPRL 098 (2) C**

**AD&D Skill Development 2**

For students preparing to enroll in the School of Apparel Design & Development. Intermediate beginners update their sewing machine handling and patternmaking skills. More complex sewing techniques and sample garments are constructed using industrial sewing and pressing equipment. Includes pattern drafting and labeling for production. Prereq: APPRL 096 or permission through successful completion of a skills test and eligibility for ENGL& 101.

**APPRL 100 (2) C**

**AD&D Skill Development 3**

Required for enrollment in AD&D. For students with previous sewing and patternmaking experience. Enhance industrial equipment handling skills for sewing and pressing to complete more difficult sewing techniques and sample garments. Covers pattern development of a bodice sloper and proofing methods. This course is a required prerequisite for enrollment into AD&D. Prereq: APPRL 098 or permission through successful completion of a skill test and ENGL& 101 eligibility.

**APPRL 101 (4) C**

**Construction 1 – Professional Techniques**

Covers professional techniques and methods to construct samples and garments to professional industry standards. Emphasis on accuracy, use of industrial sewing and pressing equipment, and developing technical specification packages. Prereq: APPRL 100 and program entrance requirements.

**APPRL 102 (4) C**

**Construction 2**

Prof Techniques Build on skills from APPRL 101 by producing samples and garments using intermediate construction techniques and meeting industry quality standards. Emphasis on industrial equipment use and proficiency, and enhanced specification package development. Prereq: APPRL 101.

**APPRL 103 (4) C**

**Construction 3**


**APPRL 111 (4) C**

**Patternmaking 1**

Flat Pattern drafting Development of basic production patterns using flat pattern and drafting methods. Focus on fundamental patternmaking practices including cutting, labeling and approaches for pattern manipulations. Prereq: APPRL 100 and program entrance requirements.

**APPRL 112 (4) C**

**Patternmaking 2**

Draping Pattern development using draping techniques to generate basic slopers. Combines draping with basic flat pattern manipulations to create patterns for garment designs. Prereq: APPRL 111.

**APPRL 113 (4) C**

**Patternmaking 3**

Continues development of flat pattern and draping techniques from APPRL 111 and 112. Combines fitting methods, and use of production pattern blocks and pattern modifications to create more complicated garment designs. Prereq: APPRL 112.

**APPRL 114 (2) C**

**Patternmaking 4 – Pattern Alteration for Fit**

Focuses on evaluating and achieving good fit through fit analysis and pattern adjustment and alteration techniques for common body variations. Prereq: APPRL 102 & APPRL 112.

**APPRL 130 (2) C**

**Apparel Manufacturing**

Survey of the apparel manufacturing business cycle. Includes materials acquisition, production, scheduling, product costing, machine processes and industry standards. Prereq: APPRL 100 and program entrance requirements.

**APPRL 131 (3) C**

**Business Practices Fashion**

Examines aspects of conducting business in the fashion profession including industry practices, job categories, professional development and business communications. Prereqs: APPRL 101, 111, 130 & 151.

**APPRL 141 (2) C**

**Design 1 – Principles of Design**

Covers the basic design principles of repetition, rhythm, emphasis, harmony, balance, scale and proportion as they relate to garment design. Prereq: APPRL 100 and program entrance requirements.

**APPRL 142 (2) C**

**Design 2 – Fabric Science Technology**

Analyze how fibers, yarns, fabric structure and finish affect fabric characteristics. Studies include textile history, independent research and visual presentation. Prereqs: APPRL 130 and APPRL 151.

**APPRL 143 (2) C**

**Design 3 - Color And Palette**

Investigates color design trends and application in the apparel market. Explores hues, values and saturation and basic color theory. Prereqs: APPRL 142 and APPRL 152.

**APPRL 151 (3) C**

**Computer Applications Apparel Design 1**

Develop Excel, Illustrator and Photoshop skills for use in the apparel design field. Includes specification development, technical drawing and image editing. Prereq: APPRL 100 and program entrance requirements.

**APPRL 152 (3) C**

**Computer Applications Apparel Design 2**

Continues building computer skills, terminology and procedure. Gain proficiency in graphics programs commonly used in industry to produce technical drawings and visual presentations. Prereq: APPRL 151.

**APPRL 197 (1-5) C**

**Work Experience in Apparel Design**

Earn relevant work experience and practical hands-on skills through the completion of an internship in the apparel design and development field. Prereq: Permission.

**APPRL 201 (4) C**

**Ready-to-Wear Construction**

Construction methods with focus on ready-to-wear and tailored garments. Coordinates with APPRL 211 to execute pattern designs for specific target markets. Prereq: APPRL 103. Coreq: APPRL 211.

**APPRL 202 (4) C**

**Active Sportswear Construction**

An advanced course focused on industry methods and standards for constructing active, technical sportswear, outerwear and accessories. Projects are constructed from patterns designed in APPRL 212. Prereqs: APPRL 201 and 211. Coreq: APPRL 212.
**Course Descriptions**

**APPRL 211 (4) C**  
Pattern Design Ready-to-Wear  
Appeals advanced pattern design for ready-to-wear and tailored garments. Employs a variety of methods to produce patterns from blocks, measurements, fashion source material, and line drawings. Coordinates with APPRL 201 to construct pattern designs. Prereqs: APPRL 103 and 113.

**APPRL 212 (4) C**  
Pattern Design – Active Sportswear  
Patternmaking for active sportswear and outerwear. Develop patterns from samples and sketches to industry standards and for functionality. Pattern designs are constructed in APPRL 202. Prereq: APPRL 211.

**APPRL 221 (4) C**  
Pattern Grading  
Covers basic principles of grading garment designs for manufacturing. Produces scaled-up and scaled-down versions of patterns using the shift and grid methods of grading. Prereq: APPRL 103 and 113.

**APPRL 222 (4) C**  
Computer Pattern Grading  
Explore apparel industry standards and guidelines for pattern sizing for more complex patterns. Intro to using computer-aided technology to size patterns. Prereq: APPRL 221.

**APPRL 230 (4) C**  
Portfolio & Resume Development  
Survey course of job search and interviewing strategies including production of a professional portfolio and resume targeted for the apparel design and development industry. Prereqs: APPRL 197, 202, 212, 222, 242.

**APPRL 241 (4) C**  
Design 4 – Print & Pattern  
Development of surface designs for fabrics and garment silhouettes. Focus on design methodology, textile pattern and print technology, Photoshop techniques and apparel industry practices. Prereqs: APPRL 143 and APPRL 152.

**APPRL 242 (4) C**  
Design 5 – Line Design  
Explore elements of designing a line of clothing to industry standards. Focus on development of boards for line presentations and design of a clothing line for production in APPRL 270. Prereq: APPRL 241.

**APPRL 260 (3) C**  
Fashion History  
Survey of key clothing items from major historical periods. Gain tools for communicating clothing concepts and understand current fashion trends. Explore social influences and cultural ideals that impact fashion. Prereqs: APPRL 143, 151 & 152.

**APPRL 270 (8) C**  
Final Line Design & Development  
Capstone course to produce the line of clothing designed in APPRL 242. Includes pattern development, materials sourcing, garment construction and production of technical specifications. Collaboratively produce the annual fashion portfolio show where final collections and portfolios are on display to industry professionals and the public. Prereqs: APPRL 197, 202, 212, 222, & 242.

**APPRL 298 (1-5) C**  
Apparel Design Special Topics  
Seminar on selected topics in apparel design and development in an area related to but not offered as part of the regular School of Apparel Design & Development curriculum. Prereq: Permission.

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**Application Development Bachelor of Applied Science**  
*Students must be accepted into the program in order to take these courses.*

**AD 300 (5) N**  
Component Software  
Covers object-oriented programming using Java with an emphasis on the creation and use of software components. Includes reusability, the model-view-controller (MVC) design pattern, linked lists, binary trees, recursion, and algorithmic analysis using Big O notation.

**AD 310 (5) N**  
Software Lifecycle  
Overview of tools, processes, and practical approaches that support software product lifecycle. Topics include: project life-cycle management; team roles, tasks, timelines; responding to customer needs and requirement changes, development paradigms: waterfall, spiral, agile, RAD (Rapid Application Development); documentation requirements; tools: source code management, unit testing, debugging. Prereq: Acceptance into the Application Development B.A.S..

**AD 315 (5) N**  
Discrete Math, Computer Programming  
This course provides hands-on application of the (abstract) discrete structures that constitute the backbone of computer science. Topics shall include: numerical representation and limitations for numerical methods, discretization, discrete probability, finite-state machines. Other topics may be included at instructor discretion. Topics shall be explored within the context of student-written application programs. Prereq: AD 300 or CSC 143; MATH & 151 with a 2.5 or better; or permission.

**AD 320 (5) N**  
Web Application Development  
Develop a database-driven web application incorporating MVC patterns. Covers state maintenance, CRUD and REST integration on both server and client sides. Learn to parse, cache and integrate API data achieved by third party providers into the application. Technologies can include Query, CURL, AJAX and parsing JSON & XML. Explore legal and ethical issues of web applications, including security, privacy, benefits and unintended consequences.

**AD 325 (5) N**  
Data Structure/Algorithms  
Covers fundamental data structure and their algorithms and applications in problem solving by programming. Includes linked lists, stacks, queues, priority queues, binary and multi-way trees, directed graphs, hashing, internal and external sorting. Prereq: AD 300.

**AD 330 (5) N**  
Professional Communication in IT  
This course presents strategies for effective communication in the technology environment. Emphasizes ethics in professional communications in the context of diverse teams and technical teams and discusses ethical guidelines for communication of technical information and outcomes. Also explores the intersection of professional communication and legal issues such as copyright, fair use and intellectual property. Prereq: Acceptance into the Application Development B.A.S..

**AD 340 (5) N**  
Mobile Application Development  
Development Intermediate course in the fundamentals of mobile application development. Includes: program language & mobile platform design, building apps that respond to users in a useful/intuitive way, integration of data sources, location awareness, image/file management, and legal & ethical issues specific to the mobile environment. Prereqs: AD 320 and acceptance into the AD-B.A.S. program or permission.
FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN .............. Watch Technology
NAME TO PREFIX
Watch Technology ............. HIN

Common Course Numbering explanation is on page 224.

AD 350 (5) N
Database Technology
Covers intermediate programming in an SQL relational database. Provides an introduction to non-relational databases as used in Cloud Computing and Big Data. The RDMS topics include views, models, stored procedures, triggers, indexing, JOINs and abstraction techniques, query construct efficiency. Introduction to noSQL databases: uses, terminology, indexing, storage, compute consumption, compression, and reliability. Prereq: Acceptance into the Application Development B.A.S..

AD 400 (5) N
Project Management in Software Development
Comprehensive overview of current processes, practices and tools used to manage software development projects. Apply best practices for planning, organizing, scheduling, controlling and adapting strategies to specific project needs and constraints. Includes requirement identification and analysis, documentation, legal and licensing requirements. Emphasizes contractual agreements, licensing, resource acquisition and management, testing and deliverables, and customer support and management. Prereq: Completion of at least one practicum.

AD 410 (5) N
Web Application Practicum
Work in teams to create a MVC based web application. Store and share code via software versioning system and use small team agile strategies. Write requirements documents, build the app in stages and integrate components into a larger project. Covers legal and ethical issues of app development and lifecycle, and working in a diverse and collaborative environment. Prereqs: AD 310 & 320.

AD 420 (5) N
Cloud Computing – Software as Service
Covers fundamentals & strategies for moving & developing apps & data storage in the cloud. Students will analyze cloud based offerings & compare them for suitability to specific app & infrastructure needs. They will learn to deploy apps to the cloud, utilize cloud based services, develop specific cloud apps, and explore legal and ethical issues specific to the cloud computing environment. Prereqs: AD 320, 325, & 350.

AD 430 (5) N
Mobile Application Practicum
Students work in teams to build a mobile app for an external client. Students will interview users, prototype their apps, write app specs, & consult for product viability & legal issues. Teams will use a recognized development strategy, performing design reviews and quality assurance checks at intervals. Upon completion, teams will deploy mobile apps. Prereq: AD 310, 320, & 340.

AD 440 (5) N
Cloud Computing Practicum
Students will work in small teams to develop and deploy cloud-based services & apps for an external client: determining suitability, cost benefit analysis, ongoing maintenance needs in deploying an existing app to a cloud-based service, develop/implement a deployment plan to migrate an app to a cloud-based service, extend the apps capabilities to utilize cloud specific offerings such as big data or cloud-based development platforms. Prereq: AD 310, 320, & 420.

AD 490 (5) N
Internship/Capstone
In this course for the Application Development, Bachelor of Applied Science, students shall complete a capstone project or arrange and complete an internship, applying the skills learned in the classroom to the workplace. Students write a culminating paper, reflecting on their experience and integrating it with classroom learning. Prereq: Permission.

Applied Behavioral Science
Bachelor of Applied Science
Students must be accepted into the program in order to take these courses.

ABS 206 (5) C
Tech Writing Applied Tec
Learn to efficiently compose memos, emails, letters of advocacy for clients, reports for court and other authorities, cover letters, case notes, grant proposals and more. Emphasis on using computer applications to produce these and other documentation, while meeting HIPAA (Health Insurance Portability and Accountability Act) and ethical standards. Not required for B.A.S. degree. Prereqs: ENGL& 101, 102 and MIC 101.

ABS 310 (5) C
Professionalism-Ethical
Understand the framework for ethical decision-making and the professional ethical principles and codes of various helping professions. Apply concepts to ethical dilemmas in historic and contemporary societal issues.

ABS 320 (5) C
Applied Social Psychology
Examine the application of social psychological concepts and systems theory in human service settings including prevention, policy analysis, groups, professional and client relationships, and multi-cultural competence. Prereq: PSYC& 100.

ABS 330 (5) C
Info Literacy and Program Assessment
Intro to organization, retrieval and evaluation of electronic and print information: college library systems, networked information systems, traditional scholarly resources, and concepts of research. Examine specialized resources of various Social and Human Services disciplines.

ABS 335 (5) C
Human Services Practice
Learn to apply knowledge, professional values, sociocultural dynamics and ethics to theory-based models of practice. Covers assessment, information literacy, planning, practice evaluation and termination.

ABS 340 (5) C
Applied Environmental Science
Survey of basic environmental science concepts emphasizing the effect humans have on their environment and the repercussions for living in an impoverished environment. Focus on human population and natural resources, including issues of access and degradation.
## Course Descriptions

### ABS 350 (5) C
**Quantitative Principles**
Learn the quantitative organization of data central to scientific research and assessment design in applied behavioral sciences. Prereqs: PSYC 100, PSYC 217, MATH 098, all with 2.0 or higher.

### ABS 360 (5) C
**Public Policy Analysis**
Learn the art and science of providing problem-solving advice to government decision-makers, managers, and citizens in order to influence government processes. Understand theoretical frameworks, problem definition, development of alternative solutions, predicting impact of choices, policy evaluation and modification of policies through policy case studies. Prereq: SHS 103 or Intro to U.S. Government/Public Policy.

### ABS 399 (1-5) C
**Independent Study and Research**
Pursue academic and professional areas of interest and possible employment related to applied behavioral science.

### ABS 410 (5) C
**Economic & Political Systems**
Explore the nature and scope of political economy by examining its historical evolution. Conduct a comparative analysis of contemporary political and economic systems and learn how public service relates to political economy through taxation and finance. Prereq: Microeconomics suggested.

### ABS 415 (5) C
**Cross-Cultural Competency**
Develop understanding of theory, research and applications pertaining to the process of cross-cultural competency. Examine cultural assumptions, values, perceptual and cognitive orientations, cultural stereotypes, prejudice, ethnocentrism, non-verbal behaviors, language, and meaning systems in cross-cultural interactions between people from diverse cultural and ethnic groups.

### ABS 420 (5) C
**Multicultural Artistic**
Examine jazz as both a developing art form and as a social and cultural institution with clearly identifiable roots and traditions. Understand how practitioners have responded to pressing contemporary social circumstances and how jazz provides a model of democracy in action.

### ABS 430 (5) C
**Sociology of Families**
Examine the trends, issues, and debates regarding the social construction of families and how changes in families relate to social, economic, global and political changes in the larger social structure. Develop critical thinking and analytic skills by drawing on empirical research, personal histories, current events, and public policy issues. Prereqs: SOC 101

### ABS 495 (5) C
**Senior Capstone Project**
Demonstrate mastery of learning in the field of Applied Behavioral Science and area of concentration. Evaluate overall educational experience and individual professional direction by integrating experiential learning, coursework, knowledge, and skills, and demonstrating critical thinking, oral presentation, creativity, problem-solving, and writing commensurate with senior level work.

### ABS 497 (5) C
**Advanced Field Placement I**
First of two quarters of applied professional work in a community setting consistent with the student's area of interest. Meets required for supervised field practice required for licensure and professional accreditation in many professional specialties.

### ABS 498 (5) C
**Advanced Field Placement II**
Second quarter of applied professional work in a community setting consistent with the student's area of interest. Meets required for supervised field practice required for licensure and professional accreditation in many professional specialties.

### ABS 499 (1-5) C
**Independent Study and Research**
Pursue academic and professional areas of interest and possible employment related to applied behavioral science.

### ART 102 (5) C,N,S
**Design**
Continuation of ART 101. Intro to three-dimensional space organization using the elements of design. Construction in sculptural formats. Required for art majors. Prereq: ART 101

### ART 103 (5) C,S
**Design**
Tutorial in individual problems in design. Prereq: Permission.

### ART 104 (3) C,N
**Modern American Art**
Course will focus on the 19th and 20th Century American art in the context of the European art tradition, as well as that of non-Western cultures. Course will provide a chronological survey of artworks, movements and artists; however, greater emphasis will be placed on the nature and significance of American art. Prereq: none.

### ART 105 (5) C
**Survey of Modern Art**
Study of major art movements of the late nineteenth century to the present with a focus on the major artistic forms, artists, and styles emerging out of Europe and the United States. Consideration also is given to the impact and exchange of artistic traditions and practices outside of Europe and the United States. May be taken out of sequence. Prereq: Recommended ENGL 101 (C).

### ART 111 (5) C,N,S
**Drawing**
Freshman level drawing. Study of line, value, space, perspective and composition through the use of a variety of drawing media.

### ART 112 (5) C,N,S
**Drawing**
Continuation of ART 111. Exploration in subject and media including drawing from the human figure. Focus on composition, expression, and creative conceptualization. Prereq: ART 111 or permission.

### ART 113 (5) C,N,S
**Drawing**
Continuation of ART 112. Further development of fine art drawing with an emphasis on expression and composition, including development of portfolio building or other project. Prereq: ART 112 or permission.
ART 114 (5) C,N
Digital Photography I
Intro to digital camera use, photography basics, photographic visualization, composition, lighting, and minimal editing. Students must provide their own digital camera with five or more megapixels, Auto, Auto-P, Aperture Priority, Shutter Priority, and full manual Exposure Modes. Prereq: Eligibility ENGL 096 or equivalent.

ART 115 (5) C,N
Digital Photography II
Continue with photography basics involving digital imaging, lighting, models, and presentation. Students need a current DSLR camera with full manual modes, tripod, lens tissue, thumb drive, card reader, compact flash or other memory card. Photo lights optional. Prereq: ART 114 or permission.

ART 121 (5) C,N
Intro to Printmaking
Study and application of basic relief print media. Covers linocuts, woodcuts, multicolor prints and experimental monoprints. Intro to relief and intaglio techniques, with emphasis on small editions. Recommended: Some drawing background.

ART 122 (5) C,N
Intro to Printmaking—Intermediate
Covers various aspects of printmaking, with an emphasis on intaglio printmaking processes. Intro to drypoint, engraving and etching with hard and soft grounds. Learn water and acid etching and the use of photosensitive emulsions on metal plates. Recommended: Some drawing background.

ART 123 (5) C
Cont. Print: Monotype
Develop technical and conceptual skills to create the painterly print. Emphasis on sequential imagery, layered impressions, color use and inks, use of the press, plates and papers and evolution of personal imagery. Covers variation, using a matrix and altered monotypes. Recommended: Some drawing background.

ART 125 (4) C,N
Basic Silk Screen Process
Preparation of silk screen frame, silk screen printing techniques, photo screen composition and processing, and photo screen printing.

ART 166 (5) N
Video Art I

ART 170 (1-5) C,S
Photography as an Art
Traces the history and distinctive properties of photography. Includes camera, exposure, lighting, composition, black and white darkroom work and digital imaging.

ART 201 (5) C,N,S
Painting

ART 202 (5) C,N,S
Painting
Further development of color and composition in oils or synthetic painting media. Individual instruction. Prereq: ART 201 or permission.

ART 203 (5) C,N,S
Painting
Further studies in color, composition and subject matter including portfolio building or other project. Individual instruction. Prereq: Art 202 or permission.

ART 204 (5) N
Mural Art
Explore the stages of mural art from brainstorming and budgeting to community input and creation, with particular emphasis on the craft of mural execution. Hands-on experience requires ability to work outdoors 3+ hours at a time. Prereq: ART 201 or permission.

ART 205 (5) C,S
Water Color Painting
Intro to water color painting. Covers basic wash techniques, color mixture, value contrast, composition and wet into wet. Recommended: Some drawing background.

ART 206 (5) C,S
Water Color Painting
Continuation of ART 205, based on a series of water color problems utilizing skills learned in the previous quarter. Further work with composition. Prereq: ART 205 or permission.

ART 207 (5) C,S
Watercolor
Individual water color projects in series. Prereq: ART 206 or permission.

ART 210 (5) N,S
Digital And Graphic Art
First of two courses. Image design, creation and manipulation using vector-based and pixel-based programs. Combines fine art and technical aspects of digital composition for production of media formats including print and web-based. Previous drawing/design and basic computer skills strongly recommended.

ART 211 (5) N,S
Sculpture
Fundamentals of composition in the round, in clay and plaster, using basic techniques of carving, casting and building. Prereq: One quarter of drawing, design, or permission.

ART 212 (5) N,S
Sculpture
Fundamentals of relief composition in clay, plaster and wood using basic techniques of carving, casting and building. Prereq: ART 211 or permission.

ART 213 (5) N,S
Sculpture
Fundamentals of three-dimensional composition with emphasis on life studies. Basic materials used are clay, plaster, or wood. Prereq: ART 212 or permission.

ART 214 (5) C,N,S
Digital Art—Intermediate
Continuation of ART 210. Further explore fine art and technical aspects of digital composition using vector graphics (such as Adobe Illustrator) and pixel-based (such as Adobe Photoshop) programs. Students will be encouraged to further develop their own visual language. Includes lectures, software demos, digital image making exercises, projects and readings. Prereq: ART 210.

ART 215 (5) C,S,N
Digital Art—Advanced
Continuation of ART 214. Further explore fine art and technical aspects of digital composition using pixel and vector based software (such as Adobe Creative Suite). Students will be encouraged to further develop their own visual language. Includes lectures, software demos, digital image making exercises, projects and readings. Prereq: ART 214. Software is available on campus. Online students are responsible for obtaining their own software.
ART 221 (5) C,N,S
Ceramic Art
Beginning basic pottery design and construction. Emphasizes hand building coils and slabs, basic glazing and beginning pot throwing on the potter's wheel.

ART 222 (5) N,S
Pottery/Ceramics
Develop throwing skills. Understand basic glaze composition and kiln operation. Continue studies in techniques of surface decoration. Prereq: ART 221 or permission.

ART 223 (5) N,S
Pottery/Ceramics
Continuation of ART 222. Advanced work on the wheel. Emphasis on combining methods of construction. Learn basic glaze skills. Prereq: ART 222 or permission.

ART 251 (5) C,N
Art History
Study of the major forms of visual expression including Paleolithic, Egyptian, Mesopotamian, Greek, Roman and Early Christian periods. Emphasis on European and Middle Eastern art (C).

ART 252 (5) C,N
Western Art Survey II
Continuation of ART 251 but can be taken out of sequence. Emphasis on the Medieval period through the Renaissance focusing on European and Islamic art. Prereq: Recommended ENGL& 101 (C).

ART 253 (5) C,N
Western Art Survey III
Continuation of ART 252 but may be taken out of sequence. Emphasis on the Italian Renaissance through the present day. Prereq: Recommended ENGL& 101 (C).

ART 254 (1-5) C
Survey of Northwest Coast Art
Surveys the visual culture of the Pacific Northwest Coast, beginning with indigenous arts in historical context through the present, with a focus on contemporary expressions and issues. Consideration will also be given to the exchange of artistic traditions and practices beyond the Northwest and the impact of colonialism, technological developments, and societal shifts. Prereq: Recommended ENGL& 101 (C).

ART 255 (5) C,N
Survey of Asian Art
Survey of the visual arts of India, China, and Japan with a focus on major religions, artistic forms, techniques, and cultural traditions. Consideration will also be given to the impact of outside invaders on the arts and cultural exchange across space and time. Prereq: Recommended ENGL& 101 (C).

ART 256 (5) C
Art History: History of Photography
Examines the role photography has played reflecting and shaping culture from its emergence in the 19th century to the digital revolution currently underway. Emphasizes photography's role in the larger development of art history and what it means to photograph, to be photographed, and to view photographers as part of an audience. Students make a few photographs of their own along the way. Prereq: ENGL 101.

ART 257 (5) N
Non Western Art History
Survey major forms of art from Africa, Australia, and South Pacific Islands. Art will be examined through the lens of post-colonization, colonization, and art of indigenous peoples post-colonization to present day. Includes the study of sculpture, architecture, painting, and personal adornment. May be taken out of sequence. Transfer class.

ART 258 (5) C
Jewelry Design I
Basic jewelry design and construction with precious and/or semi-precious metals. Simple stone setting, tool usage, soldering, metal testing, properties and characteristics of metals and stone. Recommended: One quarter each of design and drawing.

ART 259 (5) N
Jewelry Design II
A continued exploration of metal fabrication and jewelry design, covering surface enrichment, advanced forming techniques, faceted stone setting and intro to enameling. Prereq: ART 281.

ART 260 (5) N
Bench Techniques and Practice
Covers advanced bench skills and production techniques which encourage creation of innovative pieces with personal statements. Emphasis on creating a body of work that is ready for exhibition. Prereq: ART 283.

ART 261 (5) N
Metal Tech Small Scale
Metalsmithing techniques for functional and sculptural objects. Learn the physical properties of metal and create objects that express personal images and creative thoughts in metal sculpture, hollowware and model making. Includes field trips to metal fabrication studios.

ART 284 (5) N
Astronomy
Emphasis on astronomic concepts fundamental to an understanding of the solar system, stars, galaxies and origin and history of the universe. Prereq: Completion of MATH 098 (with a grade of 2.0 or higher) or permission (N).
FINDING COURSES
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN ........... Watch Technology

NAME TO PREFIX
Watch Technology ............. HIN

Common Course Numbering explanation is on page 224.

ASTR 102 (5) N
Space and Space Travel
Intro to space exploration, both robotic and human, and the engineering of space-faring vehicles to withstand space hazards. Prereq: Completion of MATH 098 (with a grade of 2.0 or higher) and placement into ENGL& 101.

ASTR 104 (5) C
Observational Astronomy
Covers the celestial sphere and coordinates; Earth’s orbital motion; time; moon, planets, stars, constellations and deep sky objects. Includes technology, processes and math used by astronomers: optics, telescopes, digital detectors, data reduction, observing techniques and data analysis. Minimum two nights observing required. Prereq: Recommend ASTR& 100 and MATH 102.

ASTR& 110 (5) N,S
The Solar System
Survey of planets of the solar system with emphasis on recent space exploration and the comparative evolution of the Earth and the other planets. Includes light optics, telescopes and the history and development of astronomy. Night observing sessions required. Prereq: MATH 098 or higher with 2.0 or placement above MATH 098 or permission. Recommended: test into ENGL& 101 or higher.

ASTR& 115 (5) N
Stars, Galaxies & Cosmology
Methods and goals of scientific inquiry developed within the study of outer space including the life and death of stars, galaxies and clusters of galaxies, and cosmology including the Big Bang. Includes historical perspective, theories, laboratory exercises, and direct observations. Prereq: Completion of MATH 098 (with a grade of 2.0 or higher) (N).

ASTR 201 (5) N,S
The Universe & the Origin of Life
Modern views of atomic and molecular evolution from the big bang theory through the formation of the solar system and emergence of life on earth. Discuss extraterrestrial intelligent life and the ultimate fate of the cosmos. Recommended: AST 100 or some science background.

ASTR 299 (1-5) C
Independent Study
Independent study of approved topics in astronomy. Prereq: Permission.

Auto Body Collision Repair

NOTE: Courses ABR 111 through ABR 164 include instruction in safety, environmental awareness, human relations and work ethics.

ABR 111 (4) S
Intro to Auto Collision
Covers the skills needed to become a good body shop employee, typical movement of a vehicle through a body shop and basic procedures for repairing a collision damaged vehicle. Identify and use general purpose hand tools and power tools used in a body shop.

ABR 112 (3) S
Safety/Environment
Practices Covers various environmental and other regulations in an automotive refinish department. Locate hazardous warning information for products used in refinishing, select the proper personal protection equipment, inspect it and demonstrate proper use.

ABR 113 (8) S
Welding and Cutting
Covers the differences between various metal joining processes, selection of the correct heat joining for various jobs, the advantages of using MIG welding, personal and shop safety, along with vehicle protection measures. Learn about welding wires, shielding gases, tuning the welder. Be able to visually inspect and destructively test the weld.

ABR 121 (4) S
Panel Replace/Alignment
Covers selection, understanding and use of panel replacement and alignment tools. Prereq: ABR 111, 112 and 113 or permission.

ABR 122 (3) S
Working with Trim/Hardware
Covers the proper use and selection of tools and removing and installing of interior door trim panels, door locks and handles, deck lid lock cylinders and exterior trim. Install pinstripes and decals. Prereq: ABR 111, 112 and 113 or permission.

ABR 123 (4) S
Metal Straightening
Covers the basic fundamentals of metal straightening and proper selection of metal straightening tools. Prereq: ABR 111, 112 and 113 or permission.

ABR 124 (4) S
Body Fillers
Covers the correct mixing and application of body fillers to increase the quality of the repair. Prereq: ABR 111, 112 and 113 or permission.

ABR 131 (2) S
Understand Auto Finishes
Identify the differences between a variety of automotive finish systems, including dry time, chemical make-up and plant and body shop application. Prereq: ABR 111, 112 and 113 or permission.

ABR 132 (6) S
Prep Surface
For Refinish Determine the condition of a vehicle’s finish and plan the steps used in refinishing the vehicle. Prereq: ABR 111, 112 and 113 or permission.

ABR 133 (5) S
Prep Equip/Paint/Material
Setup and use the final preparation, spray environment and drying areas for refinishing. Understand paint mixing formulas using reference manuals; mix paint according to published formulas; and describe the various types of air supply equipment and setup. Use various types of spray guns, make all preliminary adjustments to the air system and spray gun, test the spray gun and make final adjustments in preparation for refinishing. Prereq: ABR 111, 112 and 113 or permission.

ABR 134 (1) S
Detailing
Covers proper cleaning of the exterior and interior of the vehicle, removal of overspray, decals and pinstripes. Prereq: ABR 111, 112 and 113 or permission.
Course Descriptions

**ABR 151 (2) S**
*Metal Straightening*
Learn the basic fundamentals of metal straightening and proper selection of metal straightening tools.

**ABR 152 (2) S**
*Body Fillers*
Learn the correct mixing and application of body fillers that will increase the quality of the repair.

**ABR 153 (2) S**
*Understand Auto Finish*
Learn to identify a variety of automotive finish systems, including dry time, chemical make-up and plant and body shop application.

**ABR 161 (5) S**
*Damage Analysis*
Covers how a vehicle absorbs the forces of a collision through “crush zones,” how damage travels from the point of impact through the body, and the identification of two types of damage conditions. Prereq: ABR 111, 112 and 113 or permission.

**ABR 162 (3) S**
*Door Skin Repair Replace*
Covers proper alignment of door frames, the principles and techniques for removing and replacing a welded door skin, door intrusion beam removal, surface preparation and installation techniques. Prereq: ABR 111, 112 and 113 or permission.

**ABR 163 (5) S**
*Quarter Panel Replacement*
Analyze quarter panel damage, determine whether sectioning or full panel replacement is required; learn the principles and techniques of removing a damaged quarter panel, surface preparation, alignment and installation. Prereq: ABR 111, 112 and 113 or permission.

**ABR 164 (2) S**
*Moveable Glass/Hardware*
Remove and install moveable door glass, identify cause and correct air and water leak problems. Prereq: ABR 111, 112 and 113 or permission.

**ABR 171 (7) S**
*Straightening Structural Parts*
Learn proper mounting and anchoring of the vehicle and various types of pulling equipment. Study H.S.S., cold and hot stress relief, pulling and straightening of front, rear end, side impact and roof damage. Prereq: ABR 111, 112 and 113 or permission.

**ABR 172 (7) S**
*Full/Partial Panel Replacement*
Understand full or partial panel replacement, uses of various types of joints used in sectioning, repair or replacement of a complete rail section, rocker panel, A and B pillar, floor pan, truck floor and full body section. Prereq: ABR 111, 112 and 113 or permission.

**ABR 173 (2) S**
*Restore Corrosion Protection*
Covers safely working with chemicals, corrosion and its effect on vehicles and restoring corrosion protection to collision damaged areas. Plan effective and correct corrosion protection treatment to welded areas and exposed seams, interior seams, exposed surfaces, trim and accessories during repairs.

**ABR 181 (6) S**
*Steering & Suspension*
Covers identifying and diagnosing tire and wheel steering, rack and pinion steering, power steering suspension, strut type and problems in steering and suspension systems.

**ABR 182 (7) S**
*Electrical/Electronic Systems*
Learn to diagnose and repair electrical and mechanical systems problems.

**ABR 183 (3) S**
*Mechanical Systems*
Focuses on repairing a vehicle involved in a collision, often removing mechanical parts, including suspension, steering, drive train and engine parts and servicing of mechanical parts. Some areas require collision repair technicians to be certified to perform mechanical repairs.

**ABR 191 (4) S**
*Applying the Finish*
Prepare a surface for topcoat, apply primer-scriber, and apply single stage paint, base, clearcoat and tri-coat finishes. Prereq: ABR 131.

**ABR 192 (3) S**
*Blending Color*
Prepare a vehicle for a blend, blend single-stage, blend base coat, clear coat or tri-coat finishing. Prereq: ABR 131.

**ABR 193 (3) S**
*Solving Paint Application Problems*
Identify paint application problems caused by contamination, paint defects caused by spraying techniques and solve paint problems related to drying, curing of paint and those caused by improper preparation. Prereq: ABR 131.

**ABR 194 (3) S**
*Finish Defects*
Covers identifying paint film defects, causes and corrective methods, surface defects and corrective methods of repair. Prereq: ABR 131.

**ABR 197 (1-5) S**
*Industry Internship (ITEC Based)*
Provides instructional link between classroom and on the job experience; reinforces and documents on-the-job learning experiences; and provides opportunities for faculty and student interaction.

**ABR 199 (1-12) S**
*Auto Body/Rebuild/Refinish*
Principles of correcting auto body and sheet metal damage. Includes a study of characteristics of metal, frame repair, welding and refinishing.

**ABR 299 (1-12) S**
*Special Topics*
A special topics course for an individual or group in Automotive Collision Repair.

**Automotive Technology**

*NOTE: Courses include instruction in safety, environmental awareness, human relations and work ethics.*

**AUT 100 (6) S**
*Intro to Electricity*
This introductory course covers skills required by the National Automotive Technicians Education Foundation (NATEF) including electrical theory; testing circuits using a multimeter; diagnosing electrical system problems using schematics and component locators; removal and installation of starter and alternator from vehicles; and testing battery, starting and charging systems on vehicles including safety procedures. Prereqs: COMPASS R75, W65, M28. Coreqs: MVM 100, MVM 102.

**AUT 102 (4) S**
*Advanced Electrical Systems*
Covers understanding and using schematics. Includes battery, starting and charging system operation and testing. Prereq: AUT 100 or equivalent and MVM 100 or permission.

**AUT 104 (3) S**
*Automotive Electronics*
Covers electrical accessories on the vehicle including lighting, power windows, door locks, seats, windshield wipers and defogger. Prereq: MVM 100 or equivalent, AUT 100 and 102 or permission.
AUT 106 (3) S
Basic Power Accessories
Covers basic computer operation and applications on the vehicle, using scan tools to diagnose electronically controlled components and accessories. Prereq: MVM 100 or equivalent, AUT 100, 102 and 104 or permission.

AUT 112 (3) S
Manual Transaxles Clutch
Covers the basic principles involving manual transaxles, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, AUT 110, basic math skills, at least 9th grade reading level or permission.

AUT 114 (3) S
Manual Transmissions, Trans
Covers basic principles involving manual transmissions, transfer cases and drive axles, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, AUT 110, basic math skills, at least 9th grade reading level or permission.

AUT 116 (6) S
Air Conditioning & Heating
Covers basic principles involved in air conditioning systems, function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, AUT 110, basic math skills, at least 9th grade reading level or permission.

AUT 118 (4) S
Automotive Transmission, Diagnosis & Service
Covers band adjustment, T.V. linkage, shift linkage, neutral safety switches, flush coolers and cooler lines; repair of external transmission leaks; draining oil, replacing filters and fill transmission; removing, cleaning and replacing valve body; road test to test transmission for problems. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 120 (6) S
Advanced Auto Trans Service
Covers removal and replacement of automatic transmissions and replacing bands, clutches, bushings and seals, to make the transmission serviceable. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 122 (4) S
Steering & Suspension
Covers chassis design, materials, fasteners and safety; wheel bearings and service; steering and suspension system components. Covers how they work, diagnosis and service. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 124 (4) S
Tires & Wheel Alignment
Covers chassis design, materials, fasteners and safety; tire and wheel service; inspection and diagnosis of suspension and steering components; and wheel alignment diagnosis and service. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 126 (3) S
Introduction to Automotive Brake Systems
Covers operation, diagnosis and service of disc brakes, power brakes and ABS brake components. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 127 (4) S
Advanced Brake Systems
Covers operation, diagnosis and service of power brakes and ABS brake components. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 128 (4) S
Automotive Engine Diagnose / Remove & Replace
Covers diagnosing engines for compression. Prereq: MVM 100 or permission.

AUT 130 (8) S
Automotive Engine Rebuilding
Covers engine disassembly, cleaning of engine parts, inspection and measuring of engine components, cylinder head rebuilding, overhauling engine blocks and reassembly of an automotive engine. Prereq: MVM 100 and AUT 128 or permission.

AUT 134 (3) S
Introduction to Drivability
Prepare for the automotive technician field, specifically the drivability and troubleshooting of a specific problem within basic engine fundamentals. Includes instruction in safety, environmental awareness, human relations and leadership. Prereq: AUT 100 and MVM 100.

AUT 138 (6) S
Advanced Drivability Fuel Systems
Covers gasoline fuel systems, including mechanical and electric fuel pumps, throttle body port fuel injection and direct injection systems. Includes hybrid vehicle diagnosis and repair. Prereq: MVM 100, AUT 100, 102, 104, 106 and 136 or equivalent, or permission.

AUT 140 (4) S
Engine Computers
Covers automotive engine computer, its multiple power and ground supplies and how these affect the running of the vehicle. Includes inputs and outputs of the vehicle, how each contributes to the running of the engine and how to diagnose each one. Prereq: MVM 100, AUT 100, 102, 104, 106, 136 and 138 or equivalent, or permission.

AUT 142 (6) S
Emission Control/Diagnostics
Covers all emission-related items on the vehicle and the federally mandated OBD II system. Includes use and operation of super charges and turbo charges on cars. Prereq: MVM 100, AUT 100, 102, 104, 106, 136, 138 and 140 or equivalent, or permission.

AUT 299 (1-18) S
Spec Topics: Automotive
Special topics for individual or group study. Prereq: Permission.

MVM 100 (3) S
Introduction to Automotive I
This course focuses on skills required by the National Automotive Technicians Education Foundation (NATEF) including safety; nomenclature of components and parts; tools and equipment; repair manuals; parts and time estimating guides; fasteners and equipment; and how they relate to the automotive industry. Prereqs: COMPASS R75, W65, M28. Coreqs: AUT 100, MVM 102.

MVM 102 (8) S
Intro to Vehicle Technology
This course builds on MVM 101 to meet NATEF standards by covering vehicle inspection; lube, oil and filter; cooling system; belts and hoses; heating and air conditioning system; driveshaft; manual and automatic transmission service and using a scan tool to retrieve diagnostic trouble codes (DTC). Prereqs: COMPASS R75, W65, M28. Coreqs: MVM100, AUT100.
Course Descriptions

**Aviation Maintenance Technology**

*Also see Aerospace Composite Materials, page 231.*

**AMT 104 (5) S**
**Basic Math Physics W B**

Covers the mathematical computations required in the AMT curriculum. Learn the scientific principles of the operation of aircraft engines and maintenance equipment. Learn to calculate weight and balance for aircraft, safety for equipment changes, extreme loading check and addition of ballast. Prereq: High School Completion/GED or equivalent.

**AMT 111 (17) S**
**Basic Science for Aviation**

Provides a firm foundation for maintenance on both small and large aircraft. Covers aircraft terminology, mathematics, basic physics, aircraft drawing and interpretation of diagrams. Includes specifications and properties of modern aircraft materials, fabrication and their use, hardware, fitting, corrosion control, cleaning, proper use of tools, precision instruments required for maintenance and overhaul practices. Also covers nondestructive inspection, aircraft systems, components, ground handling and servicing procedures, Federal Aviation Regulations, maintenance records, publication, weight and balance control. Prereq: AMT 111 and 112.

**AMT 112 (17) S**
**Basic Electricity for Aviation**

Covers basic concepts of electricity and magnetism; the circuit properties of resistance, inductance and capacitance; methods of power generation for alternating and direct current systems and power utilization. Emphasis on principles and practical application, keeping mathematics to a minimum. Learn to repair and adjust generators, alternators, motors and control units, read schematics, fabricate and install complete circuits and troubleshoot and repair malfunctioning systems and components. Prereq: AMT 111.

**AMT 113 (1-17) S**
**Airframe Structure & Repair**

Experience working with five types of aircraft structure materials: wood, fabric, composite/fiberglass, plastic and metal. Provides realistic exposure to approved airframe structural repair practices. Includes inspecting materials; installing common fasteners in composite and metal structures; forming, heat treating and fabricating metal structures; and intro to brazing, gas and arc welding of steel magnesium and titanium. Prereq: AMT 111 and 112.

**AMT 119 (5) S**
**Materials and Processes**

Identify and select non-destructive testing methods including dye-penetrant, eddy current, ultrasonic and magnetic particle inspections. Covers basic heat-treating process, aircraft hardware and materials. Includes inspection and checking of welds and performance of precision measurements. Prereq: Permission.

**AMT 133 (17) S**
**Powerplant Theory & Maintenance**

Covers theory, operation and maintenance of the internal combustion reciprocating engine, including dismantling, inspection, repair or replacement of parts and partial reassembly of an aircraft powerplant. Covers theory, operation and overhaul of gas turbine engines. Intro to current maintenance practices and inspection of the compressor, burner and turbine sections. Includes inspection, repair and servicing of aircraft internal combustion cooling, exhaust and induction systems used on reciprocating and gas turbine engines. Prereq: AMT 111 and 112.

**AMT 137 (4) S**
**Aircraft Nonmetallic Structures**

Covers inspection and repair of all types of sheet metal and composite structures including transparent plastic enclosures and interiors. Prereq: Permission.

**AMT 199 (1-10) S**
**Special Projects**

Topics could include inspection and repair of all types of sheet metal and composite structures. Prereq: Permission.

**AMT 214 (1-17) S**
**Airframe Systems**

Intro to five basic airframe systems and their components: hydraulic-pneumatic power, landing gear, ice and rain control, cabin environmental control and fuel systems and management. Prereq: AMT 113.

**AMT 215 (1-17) S**
**Advanced Airframe**

Refines basic skills and concepts in addition to performing rigging and assembly, testing, evaluation of aircraft instrument systems, advanced electrical systems, communication and navigation systems and aircraft inspections for conformity and airworthiness in accordance with approved procedures. Prepare for the FAA Airframe exam. Prereq: AMT 113 and 214.

**AMT 234 (17) S**
**Powerplant Systems & Components**

Covers six systems: engine fuel system and fuel metering system, carburetion and fuel injection; ignition system for reciprocating engines and turbine engines; turbine engine electrical starting systems; powerplant lubrication systems; electrical and mechanical indicating systems; and powerplant ice and rain control systems. Prereq: AMT 133.

**AMT 235 (17) S**
**Advanced Powerplant**

Learn about aircraft propellers used with both small and large piston or turbo-prop engines. Includes engine fire detection and extinguishing, engine electrical systems and turbine engine pneumatic starting systems. Covers reciprocating and turbine engine test run and run-in and troubleshooting, powerplant inspection methods and techniques. Reviews carburetion, ignition, basic powerplants, lubrication, propellers, electrical systems and weight/balance control. Emphasis on FAA regulations, airworthiness safety, personal and technical ethics. Prereq: AMT 133 and 234.

**AMT 295 (16) S**
**A&P Master Class**

This intensive master class is for those with an approved 8610-2 FAA rating application. It provides a review of General, Airframe and Powerplant sections of the written, oral and practical FAA-licensing exams with special focus on those areas of civilian aviation not typically encountered during military service.

**AMT 296 (2) S**
**AMT Professional Portfolio**

The student will complete an industry research project, develop a job search strategy, create an industry-relevant resume, complete an online job application, and participate in required workshops, and attend a job interview event. They will describe and provide documentation of successfully scheduling and attaining FAA AMT certification according to procedures described in relevant FAA CFRs. Instructor Permission.
Baking
See Culinary Arts, page 267.

Biology

BIOL& 100 (5) C,N,S
Survey of Biology
Intro to biological principles and concepts; cell biology; application of biological knowledge to problems of society; and development of an awareness of science. Lab included. For non-science majors. Prereq: Eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better (C).

BIOL 102 (5) N
General Biology
Emphasis on common plant and animal activities, energy pathways via respiration and photosynthesis and metabolic activities. Stresses other physiological differences between animals and plants. Lab included. Prereq: BIOL& 100 and 160.

BIOL 103 (3) C
Nutrition, Food Service
Identification of known nutrients for human health; demonstration of dietary quality guidelines; utilization of dietary guidelines in meal planning, including modification of existing recipes to meet nutritional recommendations.

BIOL 107 (5) C,N
Intro to Comparative Animal Behavior
Overview of current thinking and research in the science of animal behavior, including a brief history of the development of animal behavior as a science. Focuses on evolutionary principles and how they influence the behavior of animals. Discover how animals learn and how learning and instinct shape behavior. Explore how strategies employed by different species affect survival. Gain insight into human behavior from a new perspective and understand why and when sociality and apparent altruism can be advantageous to animals. Prereq: Eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better. (C).

BIOL 109 (2) C
Bio Sexual Transmitted Diseases
Study the basic biology of the most common sexually transmitted diseases (STDs) in the U.S.: HIV/AIDS, chlamydia, genital herpes, syphilis, gonorrhea and others. Learn how STDs are transmitted, how microbe-host interactions cause disease, and leading treatments. Includes basic concepts in cellular biology, human biology and chemistry.

BIOL 120 (5) C,N
Marine Biology
Emphasis on natural history, ecology, distribution, habitat, adaptation, interrelationships of local species. Field trips and lab included. Prereq: High school biology eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better. (C).

BIOL 125 (5) N
Biology of the Pacific Northwest
Discover fundamental principles of biology and ecology through readings, experiments and field trips. This online course fulfills the lab science requirement.

BIOL 128 (5) C,N,S
Survey of Human Anatomy & Physiology
Basic organization of the body; functions and interactions of body parts; response of the body to the environment. Lab included. Prereq: Eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better. (C).

BIOL 130 (5) N
Northwest Ornithology
Intro to biology and ecology of Northwest bird species through readings, experiments and local field study to sites throughout the Pacific Northwest.

BIOL 150 (5) N,S
The Biology & Evolution of Infectious Diseases
Covers biology, epidemiology and evolution of infectious human diseases such as cholera, Ebola, HIV/AIDS, tuberculosis, malaria, influenza (including H1N1), smallpox and others. Emphasizes local and global environments of past and newly emerging diseases that impact human societies, including economic, social, cultural, historical, political and ethical aspects. Prereq: ENGL 096 or permission.

BIOL& 160 (5) C,N,S
General Biology with Lab
Basic biological concepts with an emphasis on biological molecules, cell structures and processes, genetics, and a survey of biodiversity. Prereq: Eligibility for MATH 088, 092, or 098 and completion of ENGL& 101 with a 2.0 or better (C).

BIOL 161 (5) C,N
Human Genetics
Intro to genetics with an emphasis on the impact of genetics on individuals, families and society. Topics include cell division, stem cells, meiosis and reproduction, Mendelian inheritance, multifactorial traits and diseases, DNA structure, gene expression & analytics, epigenetics, human genetic variation, mutations, chromosomal abnormalities, cancer, genetic and identity testing, human ancestry, PCR, recombinant DNA, gene therapy and genomics. Prereq: Eligible for MATH 084, 087, or 091 and completion of ENGL& 101 with a 2.0 or better.

BIOL 166 (5) N
American Foodways
Explore the evolution of the North American diet and eating rituals through an historical perspective. Includes influences in supermarkets from the Native American population and immigrants from Europe, Asia, Africa, South America and the Pacific Islands. Covers the physiological and metabolic aspects of each culture’s nutrition. Prereq: Eligibility for MATH 084 and ENGL& 101 (C).

BIOL 195 (1) N
Biotechnology Seminar
Overview of history, scope, and career opportunities in biotechnology. Prereq: Concurrent enrollment in Biotechnology program.

BIOL 196 (1) N
Biotechnology Seminar II
For students in the last quarter of the Biotechnology program. Examination of FDA regulations, patenting, trademarks and copyright law. Review and examination of FDA regulations, patenting, trademarks and copyright law. Prereq: Concurrent enrollment in Biotechnology program. Permission of instructor.
BIOL 197 (1-5) N
Work Experience: Biology
For biotechnology majors. Internship in laboratory work at a biotechnology company or research lab. Prereq: BIOL& 260 or BIOL 280, CHEM& 123 or CHE 103, or permission.

BIOL 198 (5) C,N
Biology Workshop
Problem-solving workshop approach to biology topics considered appropriate by the instructor and/or biology faculty. Additional topics may include study skills, note-taking systems, test-taking strategies and group problem-solving approaches. Prereq: Permission.

BIOL 211 (5) C,N,S
Majors Cellular
A three-quarter intro to biology sequence in preparation for advanced study in areas such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 focuses on cellular biology: cell structure, organization, metabolism, energetics, the gene and chromosomal, microbial and molecular genetics, BIOL& 212 on the biological diversity in animals and BIOL& 213 on evolution, ecology and biological principles of prokaryotes, fungi, protists and plants. Continuation of series with an emphasis on prokaryotes, fungi, algae, and plants including their diversity, anatomy and physiology. Includes evolutionary and ecological principles relevant to biological studies. Lab included. Prereq: BIOL& 211 with 2.0 or better (N,C). BIOL& 212 with 2.0 or better (S).

BIOL 213 (5) C,N,S
Majors Plant
A three-quarter intro to biology sequence in preparation for advanced study in areas such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 focuses on cellular biology, BIOL& 212 on the biological diversity in animals and BIOL& 213 on evolution, ecology and biological principles of prokaryotes, fungi, protists and plants. Continuation of series with an emphasis on prokaryotes, fungi, algae, and plants including their diversity, anatomy and physiology. Includes evolutionary and ecological principles relevant to biological studies. Lab included. Prereq: BIOL& 211 with 2.0 or better (N,C). BIOL& 212 with 2.0 or better (S).

BIOL 220 (5) C
Majors Animal
A three-quarter intro to biology sequence in preparation for advanced study in areas such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 focuses on cellular biology, BIOL& 212 on the biological diversity in animals and BIOL& 213 on evolution, ecology and biological principles of prokaryotes, fungi, protists and plants. Emphasis on the biological diversity of animals, general principles of animal physiology, growth and development. Lab included. Prereq: BIOL& 211 with a 2.0 or better or permission (C).

BIOL 221 (5) C,N,S
Majors Plant
A three-quarter intro to biology sequence in preparation for advanced study in areas such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 focuses on cellular biology, BIOL& 212 on the biological diversity in animals and BIOL& 213 on evolution, ecology and biological principles of prokaryotes, fungi, protists and plants. Continuation of series with an emphasis on prokaryotes, fungi, algae, and plants including their diversity, anatomy and physiology. Includes evolutionary and ecological principles relevant to biological studies. Lab included. Prereq: BIOL& 211 with 2.0 or better (N,C). BIOL& 212 with 2.0 or better (S).

BIOL 222 (4) C
Molecular Cellular I
For science major transfer students. Covers theory and laboratory techniques emphasizing recombinant DNA technology with emphasis on experiential learning. Addresses lab safety, solution preparation, and the process of ethical science.

BIOL 223 (4) C
Molecular Cellular II
For science major transfer students. Covers theory and laboratory techniques emphasizing protein purification and characterization technology with emphasis on experiential learning. Addresses lab safety, solution preparation and the process of ethical science.

BIOL 224 (5) C,N,S
Human Anatomy & Physiology I
Covers fundamental principles and establishes a basis for advanced study of anatomy and physiology and clinically-related subjects in the paramedical fields. Lab included. Prereq: BIOL& 160 with a 2.0 or better.

BIOL 225 (5) C
Human Anatomy & Physiology II
Continuation of BIOL& 241. Lab included. Prereq: BIOL& 241 with a 2.0 or better.

BIOL 226 (5) C,N,S
Microbiology
Fundamentals of microbiology, with emphasis on bacteria and bacterial disease. Topics include bacterial cell biology, microbial growth, growth control methods, bacterial metabolism, genetics, classification, identification, viruses, human innate and adaptive immune systems, microbe-host interactions, bacterial pathogenesis, infectious disease epidemiology and antibacterial drugs. Lab included. Prereq: Two college-level BIOL and/or CHEM courses with 2.0 or higher; eligibility for MATH& 088, 098, or 136 or instructor permission. (C).

BIOL 290 (5) C,N
General Genetics
Intro to genetics for science majors. Mendelian inheritance, linkage and recombination, extensions of Mendel, sex determination, multifactorial traits, gene structure and function, mutations and chromosome abnormalities, population genetics, the human genome, genetic technologies, current applications (including cloning, genetic testing, genetically-modified plants and animals, gene therapy and forensics) and related ethical issues. Prereq: 10 credits of college-level biology or permission.

BIOL 294 (5) C
Immunology
For biotechnology and biology majors. Natural and specific immunity. Aspects of humoral and cellular immunity including antibody structure and function, immunogenetics, development of hematopoietic cells, B and T cell function, antigen presentation, autoimmunity, cytokines and immunity to different types of disease. Non-lab course. Prereq: BIOL& 260.

BIOL 295 (5) C,N
ANP Laboratory
Anatomy and/or Physiology seminar or activity.

BIOL 297 (1-5) C,N,S
Special Topics – Biology
Seminar on selected topics or activities in the biological sciences. Prereq: Variable, dependent on topic.

BIOL 299 (1-5) C,N,S
Independent Study
Independent study of approved topics in the biological sciences. Prereq: Permission.

Botany
BOT 110 (5) N
Plants & People
Practical application relevant to everyday lives. Covers economic plants (grains, legumes, fruits), food values, plant parts, poisonous plants of urban areas, textiles and wood. Lab included. Prereq: Eligibility for MATH 084, 087, or 091 and completion of ENGL & 101 with a 2.0 or better.
BOT 112 (5) C,N
The Plant Kingdom
Intro to the anatomy, physiology and diversity of plants. Includes reproduction, evolution and ecology of these organisms. Lab. Prereq: Eligible for MATH 084 and ENGL 101. Prereq: Eligibility for MATH 084, 087, or 091 and completion of ENGL 101 with a 2.0 or better (C).

BOT 113 (5) C,N
Plant Classification
Intro to classification and diversity of seed plants. Focuses on the characteristics, collection and identification of regional plants. Lab. Prereq: Eligibility for MATH 084 and ENGL 101. Prereq: Eligibility for MATH 084, 087, or 091 and completion of ENGL 101 with a 2.0 or better (C).

BOT 299 (5) C,N
Independent Study
Independent Study – Botany

Building Trades
Pre-apprenticeship
See MTA, page 340.

Business

BUS 090 (2-5) S
Foundation Business Prep
Offered as a two-quarter course listed as BUS 090a and 090b. Lecture/lab to develop competencies in office administration and computing. Includes keyboarding, intro to computers (Windows, Word) and intro to business communications. Prereq: ASSET test scores indicating basic English, reading/writing and math skills or permission.

BUS& 101 (5) C,N,S
Introduction to Business
Survey of American business in a global context: business and economic terminology, forms of business ownership, management, accounting, finance, international marketing and foreign exchange rates. Also covers small businesses, business start-ups and franchising.

BUS 102 (3) N,S
Business Organization & Management
Development of modern management: organization and operation, division of responsibility, line and staff organizations, executive leadership and management, business control and procedures and basic management problems.

BUS 104 (3) S
Keyboarding
Intro to keyboarding for those with little or no experience. Includes alpha/numeric keyboarding and basic word processing for creation of business documents. May be taken for S/NC grade.

BUS 105 (4) N
Keyboarding
Beginning keyboarding, taught on the computer. For students with no keyboarding experience. Emphasizes touch keyboarding with speed and accuracy on alphabetic and number keys. Intro to basic word processing concepts, letter and memo formatting. May be taken for S/NC.

BUS 106 (3) C,N,S
Keyboarding/Skillbuilding
Development of speed and accuracy of letter, symbol and number keys through extensive drills and timings. May be taken for S/NC or decimal grade and may be repeated for credit. Prereq: Keyboarding of 25 net wpm.

BUS 110 (5) S
Business Mathematics
Mathematical processes and techniques currently used in business and finance: percentages, simple/compound interest, discounts, arithmetic of payroll, taxes, bank statements, reconciliation, trade and cash discounts, retail pricing, consumer credit, annuities, business and consumer loans. Prereq: Passing scores on ASSET (W&R=43, NS=40), SLEP (combined=61, NS=10), or permission.

BUS 111 (5) N
Multi-Cultural Issues/Workplace
Intro to legal, racial and cultural aspects of the American workplace. Examines diversity, self-exploration as a basis for understanding others, historical overviews of ethnic influences on American business, workforce demographics and cross-cultural communication.

BUS 112 (3) S
Diversity Issues in Business
Intro to legal, gender, racial and cultural aspects of business. Examines diversity, self-exploration as a basis for understanding others, historical overviews of ethnic influences on American business, workforce demographics and cross-cultural communication.

BUS 114 (5) N
Intro to Marketing
Intro to marketing concepts: respond to the wants and needs of the consumer with the right product, price, promotion, and distribution. Demonstrate value, quality, and service exceeding customer demands while maintaining channel relationships and meet company goals and objectives. Learn various marketing methods. Prereq: Eligible for ENGL 101 or completion of ENGL 097/098.

BUS 115 (2) N,S
Computational Skillbuilding
Intro to basic operation of touch addition, subtraction, multiplication and division on the electronic printing calculator. Use of memory register and applications to solve business math problems. Enrollment may be for S/NC audit or decimal grade.

BUS 116 (5) N,S
Business Math/Spreadsheet
Use business math applications to work with percentages, invoices, trade and cash discounts, markups and markdowns, payroll, depreciation and other business applications. Use Excel software to create spreadsheets. 2.0 or higher required for BIT Certificates and degrees (C) Prereq: Math 081 or MATH 084 placement (N); placement at MATH 081 level (C).

BUS 117 (2) N
Records Management
Gain an understanding of the components of correct document and information management. Learn the rules as established by the Association of Records Managers (ARMA) for correctly applying filing guidelines to alphabetic, numeric, geographic and subject filing systems.

BUS 118 (5) N
Project Management Introduction Overview
Overview of project management from a business perspective, including project estimation, feasibility, planning, risk management, contingency planning, scheduling and control. Apply project management principles to student project. Prereqs: BUS 169 and 236.

BUS 119 (3) N
Leadership Management Skills
Learn to integrate people, projects and sponsors to complete tasks and deliverables on time. Covers effective leadership, leading vs. managing and styles of each. Includes responsibilities, team development and dynamics, personality types, influence without authority, conflict management, organizational and cultural influence on a project. Prereqs: BUS 169 and 236.
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>BUS 123</td>
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<td>Word for Business</td>
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<td>BUS 124</td>
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<td>BUS 127</td>
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<td>Outlook for Business</td>
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<td>BUS 131</td>
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<td>Integrated Communications I</td>
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<td>BUS 132</td>
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<td>BUS 140</td>
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<td>BUS 147</td>
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<td>Introduction to Legal Systems</td>
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<td>BUS 151</td>
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<td>Intro to Entrepreneurship</td>
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<td>BUS 152</td>
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<td>Entrepreneurship II</td>
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<td>BUS 154</td>
<td>5</td>
<td>N</td>
<td>Exploring Entrepreneurship</td>
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<td>BUS 156</td>
<td>5</td>
<td>N</td>
<td>Intro to E-Bus/Commerce</td>
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<td>BUS 159</td>
<td>5</td>
<td>S</td>
<td>Intro to Comp for Tech</td>
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<td>BUS 164</td>
<td>1-2</td>
<td>S</td>
<td>Career Development I</td>
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<tr>
<td>BUS 165</td>
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<td>S</td>
<td>Career Development II</td>
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<td>BUS 166</td>
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<td>S</td>
<td>Career Development III</td>
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**BUS 123 (Word for Business)**
Create and edit business documents such as letters, memos, reports, basic tables and charts, electronic forms, outlines, mail merges and column text. Learn to share work for comments, revisions and merging and integrate other Office applications. Recommended: Familiarity with computer usage or successful completion of BUS 169; ability to key 25 words per minute or successful completion of BUS 105.

**BUS 124 (Excel for Business)**
Learn Excel. Create worksheets; enter, calculate, manipulate, and analyze data; create charts and graphs. Learn to manage and organize data, to search and select data that meets particular criteria. Recommended: Familiarity with computer usage or BUS 169.

**BUS 125 (Access for Business)**
Use Microsoft Access to design, create and edit tables, queries, forms and specialized reports. Manipulate data using specific criteria, queries and filters. Learn to import/export data among various applications software. Recommended: Familiarity with computer usage or BUS 169.

**BUS 126 (PowerPoint for Business)**
Learn Microsoft PowerPoint to create visuals to accompany business and personal presentations. Create, change, customize and save PowerPoint files. Add and manipulate graphics and apply appropriate design elements to presentations.

**BUS 127 (Outlook for Business)**
A two credit course to give students a basic knowledge of Outlook and the effective use of electronic communication. Prereq: Placement into ENG 097/098 or successful completion of ENG 095/096 or higher or instructor permission.

**BUS 131 (Integrated Communications I)**
Review and refine basic English grammar, spelling, punctuation and word usage skills by composing effective basic business letters and memos. Intro to oral communication skills essential to successful giving/receiving of information and cultural aspects of the communication process. Prereq: Satisfactory English placement test score (N.O), ASSET: W&R=46, SLEP: combined=65.

**BUS 132 (Integrated Communications II)**
Further develop communication skills integrating business English grammar, punctuation and word usage skills with composition of effective, complex business documents. Develop research, business report writing and documenting skills. Practice oral presentation techniques, handling of questions, problem-solving and conflict-resolution techniques. Complete meeting preparation tasks. Prereq: BUS 131 with 2.0 or higher.

**BUS 140 (Customer Relations)**
Develops skills to identify and resolve customer complaints, handle difficult customers and utilize effective verbal and nonverbal communication methods. Learn appropriate professional use of various electronic media and contribute positively to the service culture of an organization. Examines future trends and changes in work environments.

**BUS 147 (Introduction to Legal Systems)**
Learn the legal systems and basic legal forms. Become familiar with courts, their operational structure and the roles of bailiffs, clerks and other support offices. Learn how small claims, trial and appellate courts conduct proceedings and use forms (pleadings).

**BUS 151 (Intro to Entrepreneurship)**
Overview of the entrepreneurial process, examination of the marketplace and discussion of successful business strategies. Product selection, selling and marketing strategies. Sources of information and assistance.

**BUS 152 (Entrepreneurship)**
Intro to product selection, channels of distribution, pricing, marketing and selling strategies. Write the product, pricing and marketing sections of a business plan. Prereq: BUS 151 and BUS 154.

**BUS 153 (Entrepreneurship II)**
Intro to financial planning, financing and operations processes. Review forecasting assumptions, prepare financial needs projections, study new business financing and prepare plans for growth and contingencies. Complete the business plan. Prereq: BUS 152 or instructor’s permission.

**BUS 154 (Exploring Entrepreneurship)**
Overview of the entrepreneurial process. Develop a business plan using the student’s own business idea. Learn skills and characteristics of successful entrepreneurs, techniques for evaluating business opportunities, planning tools, selling and marketing basics, financial analysis, record keeping, regulations of Washington State, and step by step procedures for starting a small business.

**BUS 156 (Intro to E-Bus/Commerce)**
Overview of the principles of electronic commerce: the origin and growth of e-commerce; comparison with traditional commerce; the relationship of e-commerce to the Internet; electronic money; electronic contracts, legal issues, stock trading; catalogs, accounting, auditing and taxation, international aspects and e-marketing. Prereq: ENGL& 101 eligibility or completion of ENGL 097/098.

**BUS 159 (Intro to Comp for Tech)**
This course focuses on introducing students to keyboarding, word processing, spreadsheet applications, email, graphic presentations and performing Internet research. Students will also practice effective communication skills and become familiar with industry specific software. Prereqs: Compass scores. Coreqs: MVM 101, MAT 110, HDM 171.

**BUS 164 (Career Development I)**
Learn the steps to research and identify job leads, to approach companies for job-shadow opportunities, and to practice effective informational and position interviews. Required capstone course for Office Assistant Certificate.

**BUS 165 (Career Development II)**
Identify appropriate local non-profit agencies, develop networking opportunities, secure a volunteer job, and apply business skills in a short-term volunteer position. Required capstone course for Office Support Certificate.

**BUS 166 (Career Development III)**
Plan and create a project proposal. Research an area business or nonprofit organization, investigate its needs, create a project solution, present the proposal and implement the result for the organization. Required capstone course for Office Professional Certificate.
BUS 169 (5) N,S
Using Computers in Business
Learn basic word processing (Word), spreadsheet (Excel), database (Access), presentation graphics (PowerPoint) and email applications. Intro to Windows and file management. Prereq: BUS 104 or CTN 100 (S) and keyboarding skills.

BUS 170 (1-5) N,S
Information Tech I
Intro to Word, Excel, and Outlook. Create letters, business correspondence, reports and spreadsheets commonly used in a business setting. Prereq: Touch type 25 correct wpm.

BUS 171 (1-5) N
Information Tech II
Covers intermediate document creation and formatting features in Word. Create charts, tables and spreadsheets and incorporate them into business correspondence. Intro to PowerPoint and the use of Outlook contact lists. Prereq: BUS 169 or permission and touch type 35 correct wpm.

BUS 172 (1-5) N
Information Tech III
Use the MS Office Suite to integrate text, data, and charts in business-related projects. Learn database concepts through Access. Prereq: BUS 171 or permission and touch type 45 correct wpm.

BUS 175 (5) S
Applied Business Statistics
Intro to concepts and techniques used extensively in public and private sector decision-making, including statistical techniques in accounting, finance, marketing, production and personnel management. Focuses on real data applications, active learning, quantitative privacy and statistical thinking, and using computer software. Prereq: BUS 110 or MATH 098.

BUS 177 (5) S
Spreadsheets
Learn and use Microsoft Excel to manipulate numbers, track sales and expenses, create budgets and charts to help make informed business decisions. Use calculations and pre-defined formulas to organize data, process statistical information and more. Prereq: BUS 169 or equivalent.

BUS 179 (5) S
Word Processing
Covers comprehensive word processing using Microsoft Word. Includes basic skills and more advanced techniques such as tables, envelopes, templates and mail merge. Prereq: BUS 169 or 170 or equivalent.

BUS 181 (5) N
Intro Desktop Publishing
Learn to combine text and graphics to create publications using a popular software package. Course addresses both tool and craft issues. In addition to gaining skill with the computer and software, students learn basic skills and layout skills. Prereq: Prior computer experience.

BUS 182 (5) S
Info & Database Management
Study the basic alphabetic, numeric, subject and geographic filing principles necessary to manage filing systems, as established by the Association of Records, Managers and Administrators (ARMA International). Includes computer practice using a database software simulation. Intro to Microsoft Access database features.

BUS 186 (5) N
Sustainable Business
Examines the relationships between business, social and economic development and the environment. Explores how emerging technologies are reshaping energy utilization and management for businesses and their communities. Prereq: BUS& 101 or permission.

BUS 197 (1-15) C,S
Business Information Technology Internship
Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training. Orientation to Internships required prior to registration. Prereq: Permission.

BUS 200 (5) N,S
Law and Society
Fundamental concepts, structure, and function of the American legal system. Emphasis on the role of law in society rather than on the rules of law. Includes sources of law, court systems, dispute resolution, constitutional law, torts, criminal law, contracts and legal reasoning.

BUS& 201 (5) C,N,S
Business Law
Covers nature, development and operation of principles of business law relating to contracts, commercial paper, corporations, agency, partnerships and sales.

BUS 205 (5) N
Human Resource Management
Analyzes basic functions of supervisory-level management with emphasis on skills needed to be an effective leader/manager of a diverse work force. Covers management functions of planning, organizing, directing, evaluating, and skill development in effective communication, motivation, problem-solving, managing conflict, and selecting employees.

BUS 207 (5) N
Intro to Legal Resources
Study the concepts of law and evidence; the different types of laws (constitutional, statutory, regulatory and case/common); how laws are made; how they impact one another; and which laws prevail in conflicts. Learn to access and use codes, reports, digests and find needed non-legal information. Covers operation of law firms and legal agencies. Prereq: BUS 147

BUS 210 (5) C,N,S
Business & Economic Statistics
Studies statistical methods and their application to business and economic data. Prereq: MATH 098 or 116.

BUS 214 (5) N
Retail Management
Students will learn the specifics of managing retail establishments of many types. Topics covered will include basic supervision skills, types of retail establishments, retail organizational structures, customer databases, integrated systems and technology in retail, and typical retail manager functions such as scheduling, merchandising, ordering, customer service, training and hiring of employees.
**BUS 215  (5)  N**
Intro to International Trade Business
Studies business operations, private enterprise and governmental relationships in a world environment, including investments, marketing, transportation, trade agreements, management, production decisions and financial analysis. Recommended: prior business experience.

**BUS 216  (5)  C,N,S**
Professional Development
Learn to develop positive mental attitudes and examine useful techniques for personal and professional success. Emphasizes various aspects of career development.

**BUS 220  (5)  N**
Business Finance
Businesses must choose what assets to purchase and how to pay for them. Learn how businesses optimally raise funds while making net contributions to value. Includes financial risk and return; capital markets, structure and cost; and international finance issues. Prereq: BUS 116, either ACCT 110, 203 or 215, or permission.

**BUS 229  (5)  N**
Project Management
Define and sequence project tasks using MS Project software. Complete a project using Project Management elements, project plan and budget. Work with resource allocations, critical path, dependencies, estimating, risk management, contingency planning, implementation, and evaluation. Prereq: BUS 118, 169 and 236.

**BUS 230  (5)  N,S**
Business Communications
Develop effective business writing skills through preparation of letters, reports, memoranda and employment documents. Emphasizes intercultural aspects of communication. Prereq: BUS 131. Recommended: BUS 104 (S) or BUS 105 (N).

**BUS 235  (5)  S**
Oral Communications – Business
Covers listening, speaking, nonverbal communication, effective business meetings, parliamentary procedures, telephone and interview techniques. Prereq: BUS 131 or ENGL& 101 with 2.0 or higher.

**BUS 236  (5)  N**
Interpersonal Communication Workplace
Learn interpersonal communication styles and effective ways to adapt communication to meet business needs. Improve understanding of cultural diversity, non-verbal communication and individual influences on communication. Includes techniques for making informal and formal business presentations and preparations for employment interviews.

**BUS 237  (5)  N**
Team Skills in Workplace
Explore aspects of successful teams and examine the importance of assessing and recognizing individual team member skills. Prereq: BUS 236.

**BUS 240  (5)  C,N**
Internet Law
Explores legal issues and topics directly related to the World Wide Web: copyright, trademark and servemark rights; privacy; contractual issues surrounding work-product, website development and licensing agreements; employment issues including discrimination and monitoring of employee email; censorship; domain name registration; defamation or cyberslander; misuse of the Internet and liability issues. Provides an overview of the basics of constitutional law, contracts, torts, regulatory, criminal law and personal law.

**BUS 245  (5)  N**
International Trade Global Market
Examine the many facets of global marketing and its impact on the global consumer in an era of unmatched consumer awareness and heightened cultural identity.

**BUS 255  (5)  N**
Business Ethics
Addresses the fundamental questions of ethical and moral behavior in corporate boardrooms and company meeting rooms, in organizations large and small. Examines corporate culture, corporate governance, stakeholder responsibility, social responsibility and the importance of business ethics in a global economy.

**BUS 298  (1-5)  C,N,S**
Special Topics: Business
Prereq: Permission.

**BUS 299  (1-5)  C,N,S**
Special Topics: Business
Individual or group study projects on topics in the field of business. Prereq: Permission.
The student.

Plans are developed in consultation with pre-assessed, and individualized learning portions are highly individualized. Each student is pre-assessed, and individualized learning plans are developed in consultation with the student.

Develop Workplace Skills

Exploration of the practical aspects of getting and keeping a job as well as working within the working culture successfully. Students investigate roles and responsibilities, unions, various forms of discrimination, sexual harassment and employment guidelines. This course is competency based. Each student will be assessed in written and oral communication, math proficiency, and computer literacy. The student will develop skills in each area through individual and group work.

Employment Search Basics

A culmination course designed to prepare students for immediate employment. Each student will prepare a portfolio which will consist of documentation of work experience, employment options, samples of business communications, projects and resumes. Students will develop basic interviewing skills. This course is competency based. Each student will be assessed in written and oral communication, math proficiency, and computer literacy. The student will develop skills in each area through individual and group work.

Work Ethic: Business Communications/Mathematics/Technology

Exploration of the basics of business, how it is organized, what are the major types, and how it is structured. Students explore business essentials as it relates to employment. The Business Communications, Mathematics, and Technology portions are highly individualized. Each student is pre-assessed, and individualized learning plans are developed in consultation with the student.

Focus #1: Business Communications/Mathematics/Technology

The course focuses on matching employment to student goals and objectives. Exploration of corporate culture, employer expectations, and basic networking strategies. Each student will develop or expand employment strategy. The business conthematics, and computer skills components support and reinforce the basic principles. The Business Communications, Mathematics, and Technology portions are highly individualized. Each student is pre-assessed, and individualized learning plans are developed in consultation with the student.

You/Business Partnership

This course focuses on matching employment to student goals and objectives. Exploration of corporate culture, employer expectations, and basic networking strategies. Each student will develop or expand employment strategy. The Business Communications, Mathematics, and Technology portions are highly individualized. Each student is pre-assessed, and individualized learning plans are developed in consultation with the student.

Introducing Manufacturing

A short-term program designed to provide skills needed for employment in hospitality careers. This program emphasizes practical skill development and application of policies and procedures within the company guidelines.

Hospitality Careers Training

A program designed to introduce the student to the world of manufacturing and provide both an overview and sufficient specific skills to enter the manufacturing field. This includes review of basic math skills, terms and equipment commonly used in manufacturing, safety procedures and practices, print interpretation, workplace practices and standards, problem solving and hands-on application.

Course Descriptions

Business Technology Management

BTM 098 (3) C Computing Essentials
Presents common concepts and principles for effective use of current technologies. Covers basic technology vocabulary, general uses and functions of computers, mobile devices, software applications, and the Internet. Designed for students with little or no experience using computers and/or the Internet for academic and professional purposes. Prereq: Placement into ENGL 092/ESL 093 or equivalent and basic keyboarding skills (United States keyboard).

BTM 100 (2) C Education and Career Exploration
Provides effective strategies and skill building to make informed academic and career decisions. Students explore education programs and careers compatible with skills, interests, values, and goals. Career resources are explored, evaluated, and implemented in the development of an education and work plan and portfolio.

BTM 101 (2) C MS Word
Word processing skills will be covered using MS Word.

BTM 102 (2) C MS Excel
Basic skills in spreadsheets will be covered using MS Excel.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
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| BTM 103     | (2)     | MS PowerPoint  
PowerPoint, includes creating and editing presentations. |
| BTM 104     | (2)     | Adobe Photoshop  
An introduction to Photoshop concepts and skills. |
| BTM 105     | (2)     | Adobe InDesign  
BTM 106  
Keyboarding  
Keyboarding using Word for students with little or no typing experience. Includes alpha/numeric keyboard and word processing of correspondence documents. May be taken for S/NC grade. |
| BTM 107     | (3)     | Speed Building  
Development of speed and accuracy of letter, symbol, and number keys through drills and timings. May be taken for S/NC or decimal grade. Prereq: Keyboarding of 25 net wpm. |
| BTM 108     | (3)     | Applied Business Math I  
Discusses whole numbers, fractions, percentages, story problems, and basic descriptive statistics as applied to everyday business math problems. |
| BTM 109     | (5)     | Business Communications I  
Review and refine basic English grammar, spelling, punctuation, and word usage skills by composing effective basic business letters and memos. Intro to oral communication skills essential to successful giving/receiving of information and cultural aspects of the communication process. |
| BTM 111     | (5)     | Business Applications I  
Intro to word processing, spreadsheets, and personal information management and presentation software. Creating letters, business correspondence, spreadsheets, and presentations commonly used in business settings. |
| BTM 112     | (5)     | Business Applications II  
This course develops intermediate hardware/software competencies using an office productivity suite, document formatting, and operational proficiency to manage business information. Emphasis is on producing intermediate-level spreadsheet applications and practical business documentation, mail merges, data imports, and macros; creating text columns; importing and manipulating graphics; using fonts; researching new software; and developing team training strategies. |
| BTM 113     | (5)     | Business Applications III  
Introduces students to cloud-based, client-side computing using a cloud based enterprise account. Setting up an account and using email, an online office suite, and the most useful cloud-based apps will be discussed. Students will learn content management systems to manage their work and participate in team projects. |
| BTM 114     | (2)     | MOS Test Prep Word  
BTM 115  
MOS Test Prep Excel  
BTM 116  
MOS Test Prep PowerPoint  
BTM 117  
Applied Business Math II  
Use business math applications to work with applied statistics, invoices, trade and cash discounts, markups and markdowns, payroll, depreciation, compound interest, and other business applications. Use Excel software to create spreadsheets. |
| BTM 119     | (5)     | Business Communications II  
BTM 120  
Customer Relations Management  
Develop skills to identify and resolve customer complaints, handle difficult customers, utilize effective verbal and nonverbal communication methods, and be introduced to customer relationship management systems. Learn appropriate professional use of various electronic media and contribute positively to the service culture of an organization. Examine future trends and changes in global work environments. |
| BTM 122     | (5)     | Professional Development  
BTM 197  
Work Experience  
Business technology management. Earn work experience in the business field. Prereq: Permission. |
| BTM 217     | (5)     | Web Development  
HyperText Markup Language (HTML) and web page development. Introduction and implementation of HTML tags and files, common web page formats and functions, and develop and install comprehensive websites. Prereq: Previous computer experience strongly recommended. |
| BTM 218     | (4)     | Web Design w/Dreamweaver  
The course introduces Dreamweaver, software for Web page development. |
| BTM 225     | (5)     | Marketing Fundamentals  
Introduces principles and concepts of marketing. Marketing concepts increase the effectiveness and chance of success for many different efforts by getting the right message to the right people. Both online and offline approaches will be covered. |
| BTM 226     | (3)     | Small Business Startup  
BTM 227  
Entrepreneurship Toolkit  
This course introduces the elements necessary to help a student identify entrepreneurial and small business skills. Students will develop an understanding of the difference between an employee and an entrepreneur/employer. The class will engage students from any campus discipline that might lend itself to self employment i.e. culinary, optician, photography etc. PREREQ: COMPASS score placement or ENGL& 101 or higher. |
| BTM 228     | (5)     | Small Business Management  
Planning, organizing and marketing activities, forecasting methods and financial resources will be covered as well as decision-making tools. |
| BTM 231     | (5)     | Applied Accounting I  
Students will learn the “language of business Accounting.” This includes the terminology, definitions, principles, and rules of accounting. Students will learn the entire accounting cycle by setting up both a manual and computerized accounting system, and how to analyze, classify, and enter transactions into the system. Students will know how to create and interpret financial statements in accordance with GAAP rules. Prereq: BTM 108. |
BTM 232 (5) C
Applied Accounting II

BTM 233 (5) C
Applied Accounting III

BTM 234 (1) C
Bookkeeping Test Prep

BTM 236 (5) C
Supervision & Leadership

Basic course in first-line management and human relations, covering total responsibilities of a supervisor. Topics included are the functions of the job, management, human relations and motivation, effective communications, system concepts, and problem solving. Note: There is an optional service-learning component for an additional 2 credits.

BTM 237 (5) C
HR Management

Students learn the organizational structure of the modern business office. NOTE: There is an optional service-learning component for an additional 2 credits.

BTM 240 (5) C
Applied Database Design

This course introduces the concepts and application of designing and building relational database models in solving business database problems. This will include using basic Structured Query Language (SQL) and Microsoft Access to build database applications.

BTM 245 (5) C
Business Analysis Planning

BTM 248 (5) C
Data Analysis – Adv. Excel

BTM 250 (5) C
RIM Management

Components of manual and computerized record management systems. Use Access XP to design, create, document, maintain, update, and integrate a computerized database. The following filing systems: alphabetic, geographic, numeric, and subject will be introduced and applied.

BTM 260 (5) C
Project Management

Overview of project management from a business perspective, including project estimation, feasibility, planning, risk management, contingency planning, scheduling, and control. Apply project management principles to student project.

BTM 265 (5) C
Operations Management

BTM 268 (5) C
Content Management w/SharePoint

BTM 275 (5) C
Computer User Support

Designed to introduce students to the fundamentals of help desk operations. Emphasizes the basic components of a successful help desk, provides students with working knowledge of software to process and track calls, and presents hands-on experience with problem analysis.

BTM 278 (5) C
Organizational Behavior

BTM 298 (5) C
Special Topics

Designed to allow for special course offerings and new course development on topics relevant to new and emerging computer and technology applications and industry needs. Prereq: Permission.

BTM 299 (1-5) C
Special Topics: Business

Individual or group study projects on topics in the field of business. Prereq: Permission.

Chemical Dependency

See Service Learning, page 259.
CHEM& 139 (5) C,N,S
General Chemistry Prep Lecture I
Includes chemical mathematics, basic atomic structure, chemical bonding, chemical equation balancing, mole concept and chemical stoichiometry. Prereq: MATH 098 with a 2.5 or higher (C).

CHEM& 161 (6) C,N,S
General Chemistry w/Lab I
For science majors. A three-quarter sequence introducing basic concepts of chemistry: structure and bonding, chemical reactivity, physical measurement, stoichiometry, structure of matter, gas laws, intermolecular forces, solutions, chemical kinetics, equilibrium, acid/base, thermodynamics, redox and electrochemistry. Fulfills the QSR requirement for a.A. degree. Satisfies the general chemistry requirement for science majors and various pre-professional programs. Several pre-engineering and other programs require only CHEM& 161 and 162. Prereq: CHEM& 139 (or passing grade on placement exam) and MATH 141 with 2.0 or higher.

CHEM& 162 (6) C,N,S
General Chemistry w/Lab II
For science majors. Covers chemistry principles, structure of matter, atomic and molecular theory, the elements, quantitative relationships, nuclear chemistry, aqueous solutions, kinetics, chemical thermodynamics, oxidation and reduction, electro-chemistry, periodicity, equilibrium systems, qualitative analysis and organic chemistry. Fulfills the QSR requirement for A.A. degree. Prereq: CHEM& 161.

CHEM& 163 (6) C,N,S
General Chemistry w/Lab III
For science majors. Covers chemistry principles, structure of matter, atomic and molecular theory, the elements, quantitative relationships, nuclear chemistry, aqueous solutions, kinetics, chemical thermodynamics, oxidation and reduction, electro-chemistry, periodicity, equilibrium systems, qualitative analysis and organic chemistry. Fulfills the QSR requirement for A.A. degree. Prereq: CHEM& 162.

CHEM 191 (9) C,N
General Chemistry
CHEM 191 and 192 are equivalent to CHEM& 161, 162 and 163. Explores the principles of chemistry, structure of matter, atomic and molecular theory, the elements, periodicity, quantitative relationships, nuclear chemistry, aqueous solutions, oxidation and reductions. Both courses fulfill QSR requirement for A.A. degree. CHEM 191 Prereq: CHEM& 139 or passing score on chemistry placement exam and MATH 102 or MATH& 141; CHEM 192 Prereq: CHEM& 162.

CHEM 192 (9) C,N
General Chemistry
CHEM 191 and 192 are equivalent to CHEM& 161, 162 and 163. Explores the principles of chemistry, structure of matter, atomic and molecular theory, the elements, periodicity, quantitative relationships, nuclear chemistry, aqueous solutions, oxidation and reductions. Both courses fulfill QSR requirement for A.A. degree. CHEM 191 Prereq: CHEM& 139 or passing score on chemistry placement exam and MATH 102 or MATH& 141; CHEM 192 Prereq: CHEM& 162.

CHEM 211 (5) C,N
Quantitative Analysis for Biotech
Theories, principles, and methods of gravimetric, volumetric and instrumental analysis. Lab included. Prereq: CHEM& 123 or CHE 103.

CHEM& 241 (4) C,N
Organic Chemistry I
Structure, nomenclature, reactions and synthesis of the main types of organic compounds. Prereq: CHEM& 163.

CHEM& 242 (4) C,N
Organic Chemistry II
Further discussion of physical properties and transformations of organic molecules, especially aromatic and carbonyl compounds. Prereq: CHEM& 241.

CHEM& 243 (4) C,N
Organic Chemistry III

CHEM& 251 (4) C,N
Organic Chemistry Lab I
Preparation of representative compounds. Prereq: CHEM& 241 or concurrent enrollment.

CHEM& 252 (4) C,N
Organic Chemistry Lab II
Preparations and qualitative organic analysis. Prereq: CHEM& 242 or concurrent enrollment and CHEM& 251.

CHEM 255 (3) N
Biochemistry I
First of two courses. Survey of basic principles of biochemistry and molecular biology, emphasizing chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules. For chemistry, biochemistry, medicine, dentistry, pharmacy or medical technology majors.

CHEM 256 (3) N
Biochemistry II
Second of two courses. Survey of basic principles of biochemistry and molecular biology. Covers chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules. For chemistry, biochemistry, medicine, dentistry, pharmacy or medical technology majors. Prereq: CHEM 255 with 2.0 or better.

CHEM 261 (6) S
Organic Chemistry w/ Lab I
The first course in a three-quarter sequence includes molecular structure and bonding; acid/base chemistry; nomenclature, reactions and synthesis of hydrocarbons; stereochemistry, and an introduction to reaction mechanisms. This sequence satisfies the organic chemistry requirements for science and engineering majors and for various programs such as pre-medical, pre-dental, pre-pharmacy and other pre-technical disciplines. Format includes laboratory work. Prereq: CHEM& 163 with a 2.0 or higher.

CHEM 262 (6) S
Organic Chemistry w/ Lab II
The second of a three-course series in organic chemistry includes structures, reactions, mechanisms and preparation of molecules containing specific functional groups, as well as spectroscopic analysis. This sequence satisfies the organic chemistry requirements for science and engineering majors and for various programs such as pre-medical, pre-dental, pre-pharmacy and other pre-technical disciplines. Format includes laboratory work. Prereq: CHEM& 261 with a 2.0 or higher.

CHEM 263 (6) S
Organic Chemistry w/ Lab III
The third of a three-course series in organic chemistry includes further study in the synthesis, reactivity and properties of a variety of functional groups including carboxyls, as well as biologically relevant molecules. This sequence satisfies organic chemistry requirements for science and engineering majors and for programs such as pre-medical, pre-dental, pre-pharmacy and other pre-technical disciplines. Format includes laboratory work. Prereq: CHEM& 262 with a 2.0 or higher.

CHEM 298 (1-5) C,N
Special Topics
Seminar of selected topics and/or activity in the chemical sciences. Prereq: Variable, dependent on topic.
CHEM 299 (1-5) C,N
Special Topics
Chemistry Independent study of approved topics in the chemical sciences. Prereq: CHEM& 163 and permission.

Chinese
See Languages & Literature, page 318.

Communication
CMST 101 (5) C,N,S
Introduction to Communications
Intro to communication as a transactional process, with attention to personal, cultural, group and public communication. Covers verbal and nonverbal messages, listening, self-concept and perception. Prereq: Placement into ENGL& 101.

CMST 102 (5) C
Intro to Mass Media
History and impact of the mass media from hieroglyphics through print, advertising, radio, TV, movies and the Internet. Critically read media “texts” and analyze the effects on individuals and cultures. Prereq: ENGL& 101 placement.

CMST 115 (5) C,N
Overcoming Communication Anxiety
For individuals who have apprehension or nervousness about giving presentations and working with others. Apply emerging social and scientific research on self-esteem, assertiveness and cross-cultural awareness to their own communication perceptions, expectations and proficiencies. Recommended for domestic as well as immigrant and international students. Prereq: Placement into ENGL& 101.

CMST 145 (5) C,N
Gender and Family Communications
Theoretical and practical perspectives on the complex, lifelong relationships among and between females and males. Similarities and differences in gender and culturally based communication and behavior in a variety of contexts and situations, particularly within the family. Prereq: Placement into ENGL& 101.

CMST 155 (5) C,N
Argumentation and Public
Concepts and strategies of rhetorical persuasion, integrated with procedures and practice in generating, presenting and arguing ideas and issues within a public forum. Emphasizes audience research, thorough preparation and the development of appropriate agendas, information and policies for eventual group and/or public dialogue and decision-making. Prereq: Placement into ENGL& 101.

CMST 175 (5) C,N
Oral Interpretation
Interpretation as an artistic process of studying literature and other texts through individual and group performance with an audience. Analyze and perform various texts in their aesthetic, intellectual and emotional entirety. Prereq: Placement into ENGL& 101.

CMST 185 (1-5) C,N
Organizational Communications
Identification, practice and evaluation of communication styles and skills to achieve individual and organizational goals within corporate and non-profit cultures and settings. Practical professional orientation. Prereq: Placement into ENGL& 101.

CMST 195 (5) N
Media Management Operations
Explores accepted theories, alternative perspectives and actual practices of organizational communication, administration and decision-making within media institutions. Covers internal and external participants, problems, solutions and choice opportunities shaping corporate and non-profit behavior, performance and change. Prereq: Placement into ENGL& 101.

CMST 205 (5) C,N,S
Multicultural Communications
Study concepts of culture and the opportunities and challenges of multicultural communication in domestic settings. Focuses on the importance of culture in all human interaction; the variables which affect intercultural communication, including ethnicity, gender and multicultural identities; and the influences of American culture around the world. Prereq: ENGL& 101.

CMST 210 (5) C,N,S
Interpersonal Communications
Covers principles and processes of human communication, including observations and applications, personal and cultural contexts, nonverbal and verbal interactions, multiple intelligence, perception, models and definitions. Prereq: Placement into ENGL& 101.

CMST 215 (1-5) N
International Communications
Psychological and social dynamics of human interaction at the international level. Includes a variety of local and global issues, with attention to interpersonal ethics, political philosophies, economic policies and communication systems. Prereq: ENGL& 101.

CMST 220 (5) C,N,S
Public Speaking
Covers the process of getting started with confidence; topic selection and research; and preparation and delivery of informative, persuasive, special occasion and other forms of presentations. Prereq: Placement into ENGL& 101.

CMST 230 (1-5) C,N,S
Small Group Communications
Experience in and analysis of communication within groups, emphasizing the value of interdependent thoughts and efforts, active listening and empathizing, cooperative roles and tasks, power and conflict management, and collaborative decision-making and problem-solving. Prereq: Placement into ENGL& 101.

CMST 235 (1-5) N
Media Research, Marketing and Sales
Overview of the needs, opportunities and methods for measuring phenomena in human and media communication, specifically applied to integrated marketing and sales promotion. Includes objectives, designs and processes of inquiry; variables and measures in communication; measuring instruments and problems in sampling; and statistical analyses of data. Prereq: MATH& 146 or BUS 210 and ENGL& 101.

CMST 240 (5) C
Intro to Health Communications
Introduction to Health Communication examines the psychological and persuasive appeals aimed at promoting behavioral change with the design and implementation of a health education campaign. Students develop a health education campaign integrating theories of behavioral change, persuasion, cultural competence, health literacy, social marketing, and mediated messages. Prereq: ENGL& 101 with a minimum GPA of 2.0.

CMST 245 (5) C,N,S
Media Communications and Criticism
Contemporary perspectives on the transformation of human interaction through media-based communication. Evaluates the content of modern criticism within the context of the cultural and economic marketplace of ideas and values. Prereq: ENGL& 101.
Course Descriptions

CMST 255 (5) C,N
Writing for Organizations & Media
Basics of writing effectively for organizations, print and electronic media. Communication strategies, formats and media used by individuals within organizations to convey messages to internal and external audiences. Create individual writing portfolios. Prereq: ENGL& 101.

CMST 265 (5) C,N
Media Relations/Ethics
Covers current trends in and ethical issues about, the generation, maintenance and dissemination of effective communications which define and promote corporate and non-profit media organizations. Study their relationships with internal cultures and external communities, including investors, shareholders, clients, analysts, government organizations, other media and consumers. Prereq: ENGL& 101, ENGL& 102 or BUS 131, CMN 195.

CMST 275 (1-5) C,N,S
Online Communications
Survey of communication issues and applications emerging from the ongoing development and use of digitized media. Focus on functioning effectively within the frontier environment of cyberspace. Write and prepare material for digital formats. Prereq: ENGL& 101 and 102; or permission; access to the Internet; and basic email and word processing skills.

CMST 285 (5) C,N
Current Topics in Communications
Timely, multidisciplinary approaches to interpersonal, group, organizational, intercultural and media communication. Prereq: ENGL& 101 and 102; or permission.

CMST 290 (5) C,N
Media Project Practicum
Learn guidelines for managing client accounts and techniques for coordinating media productions. Emphasizes critical thinking, problem-solving, managerial and creative skills in professional situations and media formats. Prereq: Placement into ENGL& 101.

CMST 291 (5) C,N
Internet/Print Practicum
Integrate scholarly and professional analyses of Internet and print media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating online and print media productions. Increase critical thinking, problem-solving, managerial and creative skills with online and print material. Prereq: BUS 229 or CMN 130, ENGL& 101.

CMST 292 (5) C,N
Radio/Audio Practicum
Integrate scholarly and professional analyses of radio and other audio media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating aural media productions. Increase critical thinking, problem-solving, managerial and creative skills with audio material.

CMST 293 (5) C,N
Television /Video Practice
Integrate scholarly and professional analyses of television and other video media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating visual media productions. Increase critical thinking, problem-solving, managerial and creative skills with visual material.

CMST 294 (5) C,N
News/Public Info Practice
Integrate scholarly and professional analyses of news and public information media in various theoretical and practical contexts. Learn guidelines for managing client accounts and techniques for coordinating informational media productions. Increase critical thinking, problem-solving, managerial and creative skills for developing and presenting informational material.

CMST 295 (1-5) C,N
Studies and Works in Communications
Analytical study or creative work in Communication. Prereq: ENGL& 101 and 102, an approved learning contract/proposal and permission.

CMST 299 (1-5) C,N
Special Projects in Speech
Special projects in Communication.

Community Policing
CPP 101 (5) C,S
Intro to Community Policing
Overview of the Seattle Police Department’s function and operational procedures. Focuses on policing philosophy, theory and procedure. Understand the different dynamics of the police profession and the progression of the policing philosophy.

Computer Information Systems
Also see Computer Science, Computer Technology, Information Technology.

CIS 100 (5) S
Beginning Computers
Covers basic computer terminology; characteristics of hardware and software; capabilities, limitations and problems associated with computers; intro to email and the Internet.

CSC 102 (2) C
Computers in Mathematics
Introduction to software (such as Mathematica) used extensively in advanced math courses. Completion of self-paced tutorials to prepare for final exam. CSC 102B must be taken with MATH 116. CSC 102Q is strongly recommended for students in MATH& 151. First class is mandatory because it provides an introduction to the software. Prereq for CSC 102B: MATH 098, concurrent enrollment. CSC 102Q is strongly recommended for students in MATH& 151.

CSC 197 (1-5) C
Work Experience: CIS
Acquire computer-related work experience through jobs or internships.

Computer Science
Also see Computer Information Systems, Computer Technology, Information Technology.

CSC 102B: MATH 098, concurrent enrollment in MATH 116, or permission. Prereq for CSC 102Q: MATH& 151. First class is mandatory because it provides an introduction to the software. Prereq for CSC 102B: MATH 098, concurrent enrollment in MATH 116, or permission. Prereq for CSC 102Q: MATH& 142 or permission.

CSC 110 (5) C,N,S
Intro to Computer Programming
An overview of computer program design and problem solving with a focus on problem analysis, program development, testing and debugging. Students will use decision and loop structures to develop a variety of programs to solve scientific and technical problems. Programming language used will be Python. Prereq: MATH 095 or MATH 098 with a 2.0 or higher. Computer fee.
### CSC 111 (5) C,N,S
**Computers for Math & Science**
Learn to create and manage your own website with images, links, and multimedia. Use spreadsheet software for scientific calculations and to create graphs. Create a complete presentation using presentation software. Design and build a simple database using database software. Enhance your website with simple programs. Includes introduction to computer hardware, networks and privacy. Prereq: MATH 098 with a 2.0 or better. Lab fee. Transfers to UW as CSE/INFO 100.

### CSC 142 (5) C,N,S
**Computer Programming I**
General principles of modern programming, including how to design, implement, document, test and debug computer programs, using the Java programming language. Topics include objects, messages, expressions, statements, methods, classes, conditionals, iteration, arrays, and collections. Prereq: MATH & 142 with a 2.0 or higher and CSC 110 with a 2.0 or higher. Computer fee. Transfer class.

### CSC 143 (5) C,N,S
**Computer Programming II**
Advanced concepts of modern programming that continue the ideas introduced in CSC 142. Topics include classes and interfaces, inheritance, graphics, exceptions, stream I/O, recursion, analysis of algorithms, and some dynamic structures (lists, stacks, trees). Uses the Java programming language. Prereq: CSC 142.

### CSC 198 (5) C,N,S
**Computer Workshop**
Covers computer topics as considered appropriate by the instructor and/or division. Topics may be chosen so as to supplement content in another course. Class format may vary from lecture to group problem solving to lecture. Prereq: Permission of instructor.

### CSC 273 (5) N,S
**Data Structures Algorithms**
Covers fundamental data structure and their algorithms and applications in problem solving by programming. Includes linked lists, stacks, queues, priority queues, binary and multi-way trees, directed graphs, hashing, internal and external sorting. Prereq: CSC 143 with 3.0 or better or permission.

### CSC 298 (10) C,N,S
**Special Topics**
A seminar of selected topics or activities in computer science. Prereq: Variable, dependent on topic.

### CSC 299 (1-5) C,N,S
**Independent Study**
Independent study of approved topics in computer science. Prereq: Permission.

### Computer Technology
*Also see Computer Information Systems, Computer Science, Information Technology.*

### CTN 101 (5) S
**Intro to Computing Technology**
Learn the common hardware components of computing systems, including the technical knowledge to make decisions about hardware selection, configuration, and upgrading for software optimization. Covers basic network topologies and management schema. Prereq: CSC 100 or concurrent enrollment.

### CTN 120 (5) S
**Databases I**
Study of database concepts and applications using recent version of Microsoft Access. Includes practical experience setting up related database systems and developing tables, queries, forms and reports. Prereq: CSC 100.

### CTN 121 (5) S
**Database II**
Advanced topics in MS Access: Create macros, switchboard, action queries, front-end Access/Back-end SQL. Intro to SQL: create databases, SQL queries and tables from script, use views, more join types. Includes SQL server: back-up techniques, security, user rights and permissions. Prereq: CTN 120 with 2.0 or higher.

### CTN 131 (5) S
**Intro to Computer Programming**
Intro to computer programming using Microsoft Studio and/or other languages to explore elementary programming techniques. Use various control structures, and modular program design and structural concepts. Prereq: CSC 100 (2.0 or higher) or permission.

### CTN 142 (5) S
**Operating Systems II**
Study the implementation and administration of the most recent Microsoft Windows operating system to help prepare for the Microsoft certification exams. Focus on general operating systems- architectural concepts including file, memory, I/O, and process management methods. Learn UNIX and Windows operating systems- intrinsic structure and functionality. Prereq: CTN 101 (2.0 or higher) or permission.

### CTN 143 (5) S
**Operating Systems III**
Intro to the Linux operating system including features and distributions, the X Window System, user commands, installation, administration, basic networking and shells. Helps prepare the student for the CompTIA Linux+ certification exam. Prereq: CTN 142 with 2.0 or higher.

### CTN 160 (5) S
**Web Production I**
Intro to Internet media development using HTML 5, tables, forms and CSS3. Learn how to deploy and test sites on a web browser. A final project is to build a website. Prereq: CSC 100 or permission.

### CTN 161 (5) S
**Web Production II**
Web development using streamlined development tools and responsive web design. Integrate graphics and complex code to produce professional quality websites. Tools used meet current industry standards. Prereq: CTN 160 (2.0 or higher) or permission.

### CTN 165 (5) S
**Usability Design**
Focuses on combining information architecture, design, usability testing and technology. Learn to include usability testing at the start of the technology project and carry usability through the development cycle. Learn to analyze results and change the interface to reflect testing results. Prereq: CTN 160 with 2.0 or higher; ART 210 recommended.
CTN 170  (5)  S  
PC Hardware I  
Covers computer hardware repair and service training toward A+ certification prep. Focus on peripherals, software and hardware designs. Covers work habits, customer interaction, reference materials, and basic linear troubleshooting. Includes choices, installation, configuration and economic guidelines for repair or replacement decisions. Prereq: CSC 100, CTN 101 with 2.0 or higher or equivalent.

CTN 171  (5)  S  
PC Hardware II  
Preparation for the CompTIA A+ certification for hardware and software technologies. Develops knowledge and hands-on competencies in core hardware and operating system technologies including installation, configuration, diagnosing and preventive maintenance. Emphasizes customer interaction techniques and systematic approaches to troubleshooting. Prereq: CTN 170 with 2.0 or higher.

CTN 173  (5)  S  
Content Management Systems (CMS) – WordPress  
Using Word Press or similar software, students can accomplish basic and advanced tasks of inserting, updating and deleting available information and content via the dashboard of the Content Management System (CMS). Includes installing, configuring, managing, and using CMS plugins and widgets. Theme creation and modification are taught. Prereq: CTN 160 (2.0 or higher).

CTN 197  (1-15)  S  
Computer Technology Internship  
Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training. Orientation to Internships required prior to registration. Prereq: Permission.

CTN 202  (5)  S  
Web Scripting  
Advanced HTML. Incorporate industry standard scripting languages in web pages. Include variables, functions, objects, and events; data types and operators and debugging code. May examine JavaScript, PHP, AJAX and other languages. Prereq: CTN 160 and (CTN 131 or CTN 161) (2.0 or higher) or permission.

CTN 224  (5)  S  
Web Server Configuration & Management  
Focuses on building, maintaining, and optimizing web servers. Topics include security, user management, and authentication and access tracking. Prereq: CTN 101 and 160; CTN 270.

CTN 270  (1-5)  S  
Local Area Networks I  
Intro to networking concepts, terminology and technologies including history, OSI reference model, standards, common protocols, data translation techniques, data transmission processes and network structures. Includes error handling, communication hardware and popular network operating systems. Prereq: CSC 100. Recommended: CTN 101.

CTN 274  (5)  S  
Local Area Networks III  
Covers advanced topics in computer networking, including remotely installing operating systems, implementing network security, setting up directory services such as Active Directory, designing and implementing policies, setting up and implementing print services and configuring distributed file systems. Prereq: CTN 270 with 2.0 or higher.

CTN 276  (5)  S  
Virtualization & Cloud I  
Learn how Cloud computing and virtualization technologies work. Covers differences between Cloud computing and virtualization, the technologies, TCO and continuing costs, and decision guidelines. Discuss and use Xen, Hyper-V, VMware and application level virtualization technologies. Prereq: CTN 142, 274 & 282 with 2.0 or higher.

CTN 277  (5)  S  
Network Security I  
Intro to the concepts and practices used to guard organizational data and computer systems. Select and deploy practical and effective solutions used to identify, assess and prevent external network threats. Covers Microsoft and Linux operating systems for server security, firewall security and remote access solutions. Prereq: CTN 270.

CTN 278  (3)  S  
Wireless Communication I  
Intro to wireless communication and WLAN use, design, installation, security and troubleshooting. Studies the 802.11 standards including WLANs, Bluetooth and cellular technology concepts. Learn how and why wireless communication works and how to select and setup the correct wireless devices for the best network solution. Prereq: CTN 270 or equivalent.

CTN 281  (5)  S  
Security+ Certification  
Prepares students for the latest CompTIA Security+ Certification Exam. Focus is on security risks, vulnerabilities and solution concepts including infrastructure, access control, cryptography, physical, network and operating system security strategies, assessments and auditing. Uses the most recent distributed operating systems. Prereq: CTN 277 with 2.0 or higher.

CTN 282  (5)  S  
CISCO I  
Intro to networking official CCNA 5.0—CCNA Routing and Switching. First of four-course Cisco training program which prepares the student for the Certified Cisco Network Associate certification exam. Includes building simple LANs, performing basic configurations for routers and switches, and implementing IP addressing schemes. Prereq: CTN 270 with 2.0 or higher.

CTN 283  (5)  S  
CISCO II  

CTN 284  (5)  S  
CISCO III  
CCNA 5.0—CCNA Routing and Switching: Switched Networks. Third of four-course Cisco training program. Covers the architecture, components, and operations of a converged switched network, Layer 2 switching protocols and concepts with the primary focus on VLANs concepts, configuration, security and communication. Intro to VLANs, hierarchical design model and switch configuration. Troubleshoot with Virtual LANs, VTP, and inter-VLAN routing in a converged network. Prereq: CTN 283 and pass Cisco (2) final.

CTN 285  (5)  S  
CISCO IV  
CCNA 5.0 – Connectivity Networks. Fourth of four-course Cisco training program. Study of WAN technologies and network services required by converged applications in a complex network. Includes selection criteria of network devices and WAN technologies; configuration and troubleshooting; resolving common issues with data link protocols, and implementation skills for IPsec and virtual private network operations in a complex network. Prereq: CTN 284 and pass the Cisco 3 final.
CTN 286 (5) S
Virtualization & Cloud 2
Learn advanced management methods for virtualization technologies such as VMware ESXi, XenServer. Install, configure, manage, and troubleshoot virtualization server products and guest operating systems. Gain practical experience with High Availability, VM migration, virtualized networking, SAN configuration and data security concepts. Prereq: CTN 276 with 2.0 or higher or work experience equivalent or instructor permission.

CTN 287 (5) S
Cloud Computing
Build a cloud server using Microsoft products (Hyper-V, SharePoint, and Azure) to understand the interactions of each and the advantages, the complexities, security issues, disadvantages and seamless appearance from the users’ view of the Cloud. Prereq: CTN 276 with 2.0 or higher or work experience equivalent.

CTN 295 (5) S
Research & Customer Service
Learn effective customer service. Includes support desk techniques, infrastructure and research methods to solve technical problems efficiently. Emphasizes customer interaction and soft skills. Accomplish, document, evaluate, and present research to the customer. Study help desk techniques and infrastructure. Prereq: CSC 100 or equivalent. Recommended: at least one hardware, operating system, programming or networking class with 2.0 or higher.

CTN 298 (1-10) S
Special Topics: Computing Technology
Special topics in individual or group study in the Computing Technology field. Prereq: Permission.

CTN 299 (1-10) S
Special Topics: Computer Tech
Accommodates individuals who wish to learn new skills or to update specific skills by creating an agreement or contract with the college. Prereq: Permission.

Cooperative Work Experience

CWE 100 (1-15) C,N
Cooperative Work Experience
On-the-job training in field of study. Prereq: Permission of Cooperative Education office.

CWE 101 (1-2) N
Portfolio Job Search Internship
Learn to develop the internship or job you want. Develop the tools and resources necessary for the internship, job search, and/or transferring to a four-year school. Prereq: ENGL 095/096 or higher or placement into ENGL 097/098 strongly recommended.

CWE 102 (2) N
Job Shadow
Provides an opportunity to observe the practical side of the student’s chosen field of study. Learn expected behavior, culture, and dynamics of the workplace. Shadow professionals in the field, conduct information interviews, and assess career choices. Prereq: CWE 101 strongly recommended.

CWE 110 (2-3) N
Internship
Apply classroom theory and skills to the workplace. Develop and document learning objectives, complete a work performance evaluation with their supervisor, and write a capstone paper. Campus sessions and online discussions enrich individual internship experiences. Prereq: CWE 101 strongly recommended.

CWE 120 (5) N
Internship Work Experience
An opportunity for students to apply their skills and knowledge while gaining valuable work experience and insight in their chosen field of study. Prereq: Permission.

CWE 197 (1-15) C,N
Co-Op Work Experience
Earn credit for work or internship experiences.

CWE 494 (1) N
Baccalaureate Internship Preparation
Upper division one credit course prepares students in B.A.S. degree program for internship. Course assists students in developing tools and identifying resources necessary to find and secure appropriate internships. Prerequisite: Enrolled in B.A.S. degree program.

CWE 495 (3-9) N
Baccalaureate Internship
In this variable credit course for the Bachelor of Applied Science (B.A.S.), students arrange and complete an internship, applying theory and skills learned in the classroom to the workplace. Students write a culminating paper, reflecting on their experience and integrating it with classroom learning. Students may take internship course up to 2 times after completing the first two quarters of the program to fulfill the 8 credit requirement. Prereq: CWE 494 or instructor permission.

Coordinated Studies Programs/Learning Communities

Learning Communities, also called Integrated Studies, study a major theme from a variety of academic disciplines. A team of faculty and students use critical thinking to study important issues and concerns for the entire quarter. Students enroll for the entire program. Each program is taught by a team of diverse faculty members who conduct lectures and lead student seminars, field trips and group projects.

In Learning Communities, students and faculty work together on local and global issues requiring creative and active participation from all those in the classroom. Though separate courses are listed on a student’s transcript, the program is conducted as one coordinated course and each program becomes a unique sum, greater than the total of the parts.

This innovative approach to teaching and learning has won national recognition for the Seattle College District. The sense of community and excitement generated by Learning Communities creates an atmosphere that is especially memorable and profound.

For further information, students should contact the Advising Center at their campus and check the quarterly class schedule.

Core Employment Readiness

COR 095 (1-15) C,S
Community Corrections Program
Short term program designed to provide skills needed for employment as a Community Corrections Facilitator in community based corrections. As a CCF this person will be responsible for residential supervision of clients under court jurisdiction. This program emphasizes practical skill development and application of policies and procedures within the company guidelines.

COR 100 (1) V
Strategies for Success
Covers business professional and educational success strategies for lifelong learning. Assess and develop skills in goal setting, self-management, positive image building and leadership qualities.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Type</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COR 110</td>
<td>(5)</td>
<td>C,S</td>
<td>Health and First Aid</td>
</tr>
<tr>
<td>COR 120</td>
<td>(3)</td>
<td>V</td>
<td>Communication &amp; Professionalism</td>
</tr>
<tr>
<td>COR 131</td>
<td>(3)</td>
<td>V</td>
<td>Employment Skills</td>
</tr>
<tr>
<td>COR 197</td>
<td>(15)</td>
<td>C,S</td>
<td>Internship Field Experience</td>
</tr>
<tr>
<td>COR 225</td>
<td>(2)</td>
<td>C,S</td>
<td>Crime in America I</td>
</tr>
<tr>
<td>COR 230</td>
<td>(3)</td>
<td>C,S</td>
<td>Crime in America II</td>
</tr>
<tr>
<td>COR 240</td>
<td>(3)</td>
<td>S</td>
<td>Case Management</td>
</tr>
<tr>
<td>COS 100</td>
<td>(1)</td>
<td>V</td>
<td>Strategies for Success in Cosmetology</td>
</tr>
<tr>
<td>COS 110</td>
<td>(5)</td>
<td></td>
<td>Community Corrections &amp; Protective Services</td>
</tr>
<tr>
<td>COS 120</td>
<td>(3)</td>
<td>V</td>
<td>Communication &amp; Professionalism</td>
</tr>
<tr>
<td>COS 131</td>
<td>(3)</td>
<td>V</td>
<td>Employment Skills</td>
</tr>
<tr>
<td>COS 143</td>
<td>(0.5)</td>
<td>V</td>
<td>CPR/First Aid</td>
</tr>
<tr>
<td>COS 148</td>
<td>(10)</td>
<td>V</td>
<td>Intro to Chemical Hair Design</td>
</tr>
<tr>
<td>COS 149</td>
<td>(7.5)</td>
<td>V</td>
<td>Hair Design Practicum II</td>
</tr>
<tr>
<td>COS 150</td>
<td>(3)</td>
<td>V</td>
<td>Hair Design Practicum I</td>
</tr>
<tr>
<td>COS 160</td>
<td>(7.5)</td>
<td>V</td>
<td>Intro to Natural Nail Care</td>
</tr>
<tr>
<td>COS 161</td>
<td>(4.5)</td>
<td>V</td>
<td>Principles of Salon Shop Business</td>
</tr>
<tr>
<td>COS 162</td>
<td>(2.5)</td>
<td>V</td>
<td>Intro to Natural Nail Care</td>
</tr>
<tr>
<td>COS 163</td>
<td>(12.5)</td>
<td>V</td>
<td>Comp Cosmetology Practicum I</td>
</tr>
<tr>
<td>COS 171</td>
<td>(4.5)</td>
<td>V</td>
<td>Principles of Salon Shop Business</td>
</tr>
<tr>
<td>COS 172</td>
<td>(3)</td>
<td>V</td>
<td>Employment Skills</td>
</tr>
<tr>
<td>COS 173</td>
<td>(10)</td>
<td>V</td>
<td>Comp Cosmetology Practicum II</td>
</tr>
<tr>
<td>COS 174</td>
<td>(10)</td>
<td>V</td>
<td>Comp Cosmetology Practicum II</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**Health and First Aid**

Health and safety of the Correction Officer, the inmate and the environment are vital within the correction field. Consists of four cohesive, instructional components with an expert instructor in each field: first aid, communicable disease prevention (emphasis on AIDS-HIV awareness), alcohol and alcoholism, drugs and substance abuse. State certification will be given to those who perform satisfactorily in both written exams and in demonstrations. Attendance for a minimum number of classroom hours is mandatory.

**Communication & Professionalism**

Focuses on the methods and practices of developing and maintaining helpful and satisfying professional relationships with patients, clients, and coworkers. Prereq: PSG 110 or permission.

**Employment Skills**

Offers instruction in developing oral and written communication skills needed for success in the employment and career search process. Focuses on developing resumes, writing cover letters, creating career portfolios, conducting employment searches, preparing for interviews, making public presentations, and developing business communication and etiquette skills. Prereq: Permission.

**Internship Field Experience**

Following an orientation, spend time in the field under guidance of an instructor and/or mentor to learn about operations, policies, procedures and clientele served in a given correction or public service organization or institution. Students meet as a group during the internship, which can be during ongoing visits or rotation. Prereq: Approval of an instructor.

**Crime in America I**

Introduction to American crime trends and how American society and politics dealt with the problems based upon historical American opinion and politics.

**Crime in America II**

Covers contemporary social and political policy factors affecting crime and crime trends in America. Special emphasis on American policy regarding trends in offender housing and behavior modification with today's policy on direct supervision. Focus on how crime impacts social and political trends, with emphasis on offender and victim profiles. Prereq: COR 225.

**Case Management**

For those seeking employment in community, government or private corrections or security work. Learn to assist clients with long-term education, training, employment, and family reintegration needs. Study the fundamentals of critical education, economic and social service systems needed by adults in transition from prison. Prereq: Complete SSC Community Corrections & Protective Services Training Certificate and/or work in the field and a high school diploma.

**Cosmetology**

**STRATEGIES FOR SUCCESS IN COSMETOLOGY**

Explore business and educational success strategies in both educational and work environments, using skills development and assessment activities focusing on goal setting, time management, positive self-image and leadership.

**INTRO TO PHYSICAL DESIGN**

Apply theory from COS 141 and practice hair sculpting with clippers, razor and shears, styling with hairdryer, thermal iron or wet styling tool, professionalism and communication, and safety and sanitation on manikins and models.

**COMP COSMETOLOGY PRACTICUM II**

Apply theory from COS 148 and practice permanent waving, hair straightening and coloring techniques, using proper safety and infection control procedures.

**HAIR DESIGN PRACTICUM II**

Apply theory from COS 149 and practice permanent waving, hair straightening and coloring techniques, using proper safety and infection control procedures.

**HAIR DESIGN PRACTICUM I**

Apply theory from COS 149 and practice permanent waving, hair straightening and coloring techniques, using proper safety and infection control procedures.

**COMP COSMETOLOGY PRACTICUM I**

Apply theory from COS 148 and practice permanent waving, hair straightening and coloring techniques, using proper safety and infection control procedures.

**PRINCIPLES OF SALON SHOP BUSINESS**

Intro to proper salon business practices. Learn Washington state laws affecting salon businesses, proper setup of salon ownership and management, and identification of nail diseases, disorders and conditions.

**EMPLOYMENT SKILLS**

Intro to strategies for finding a job in cosmetology: interview skills, résumé writing, preparation for entering the workforce in various facets of the industry. Covers importance of professional networking, advertising and promotions, and establishing rapport with clients as a beauty expert.

**COMP COSMETOLOGY PRACTICUM II**

Apply theory of COS 171 & 172 to developing successful professional relationships, building a clientele, and successfully completing retail sales in a simulated clinic. Practice all previously learned cosmetology services.
Salon/Shop Experience II
COS 192 (2.5) V
This course is a workplace training course that enables students to experience specific skills development, during their fourth quarter, in a salon environment while allowing them to forge professional relationships within the cosmetology industry. Students spend 82.5 hours in a local salon with the focus on real-world experience and current salon expectations.

Culinary Arts

CUL 103 (4) C
Food Theory III
Covers professional restaurant cooking and international cuisines. Explores European, Asian, and U.S. cooking, culture, and eating traditions. Includes menu writing, recipe development, flavor building, and plate presentation and the study of a variety of specific techniques: soufflé, consommé, pasta, fish butchery, gumbo, Chinese dumplings, and antipasto. Prereq: Successful completion of 2nd quarter. Culinary Arts Program courses with a minimum GPA of 2.0 in each course.

CUL 104 (6) C
Food Theory IV
Emphasizes international fine-dining cooking theory. Focus on classical and contemporary Northwest, Middle Eastern, Mexican, Spanish, French, and Pan Asian cuisines. Includes menu writing, vegetarian cuisine, advanced sauces, ingredient identification, advanced cooking methods, advanced plate presentation, fine dining kitchen organization, whole animal fabrication, and charcuterie. Prereq: Successful completion of 3rd quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.

CUL 106 (1.5) C
Introduction to Culinary Arts: Theory
Introduction to the theory of culinary arts covering the various methods of moist and dry heat cooking as well as product knowledge and identification, knife skills, and foundational cooking techniques. Prereq: Permission.

CUL 111 (4) C
Intro Professional Cooking: Practicum
A hands-on introduction to the fundamentals of professional cooking. Includes kitchen safety operations, knife skills, basic food cooking and stock preparation, teamwork, leadership, general housekeeping, sanitation, cleanup, and inventory. Prereq: Permission.

CUL 112 (8) C
Quantity Cooking: Practicum
Preparation of international quantity cooking meals. Includes mise en place, item marketing, equipment operation, and preparation of meals from the Italian, Asian, Middle Eastern, Mexican, Creole, Indian, French, and American traditions. Prereq: Successful completion of 1st quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUL 152</td>
<td>1</td>
<td>C</td>
<td>Sustainable Food Systems II&lt;br&gt;Continuation of CUL 151. Introductory course exploring the current ecological, economical and political issues relating to the food system. Raises awareness of issues of the food system from producer to consumer, exploring agriculture, fisheries, dairy, meat and poultry production, water and waste. Includes trade, health and social justice issues within the global food economy. Successful completion of 2nd quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.</td>
</tr>
<tr>
<td>CUL 153</td>
<td>1</td>
<td>C</td>
<td>Sustainable Food Systems III&lt;br&gt;Explore the issues relating to a sustainable food system: globalization, food politics, food security and social justice. Examine climate change as it relates to the food system, water and waste issues, heritage foods, and practical application of ideas in the kitchen. Learn how to navigate and purchase from the local producer market. Prereq: Permission.</td>
</tr>
<tr>
<td>CUL 205</td>
<td>1</td>
<td>C</td>
<td>Advanced Culinary Theory&lt;br&gt;Students refine the practical skills for managing and running kitchens, dining rooms and other areas of the food service industry. The technical background of designing menus and menu items for specific target populations with an emphasis on high end and specialty dining will be explored through cooking demonstrations, product sampling and lectures. Prereq: Successful completion of 4th quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.</td>
</tr>
<tr>
<td>CUL 215</td>
<td>4.5</td>
<td>C</td>
<td>Advanced Culinary Practices&lt;br&gt;Culmination and refinement of culinary techniques. Create and serve a “Chef of the Day” menu in the One World dining room. Create meals with a nutritious focus, execute banquet and tasting menus, practice advanced culinary techniques, and refine culinary competition skills. Practice professionalism and the commitment to producing high-quality food. Prereq: Successful completion of 4th quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.</td>
</tr>
<tr>
<td>CUL 251</td>
<td>4</td>
<td>C</td>
<td>Buffet &amp; Garden: Theory&lt;br&gt;Basic cooking methods covering garde manger applications such as charcuterie, forcemeats, curing and smoking, and hors d’oeuvres. Learn to design a show platter and relate to buffet catering &amp; garde manger principles, and understand the relationship of theory to the menus and recipes in the practicum show platter. Learn about produce farming, sustainability, and seed to plate food production while visiting Skagit Valley Farm.</td>
</tr>
<tr>
<td>CUL 255</td>
<td>8</td>
<td>C</td>
<td>Buffet/Garden/Ice: Practicum&lt;br&gt;Prepare foods for a buffet setting, including salads, sandwiches, street food, hot entrees, cold kitchen preparation, and desserts. Produce a variety of charcuterie items. Implement recipes and cooking methods presented in class. Work on a show platter for buffet presentation. When applicable, utilize weekly harvests from the Skagit Valley Farm to execute seed-to-plate philosophy in menus and recipes. Prereq: CUL 112 or permission.</td>
</tr>
<tr>
<td>CUL 291</td>
<td>5</td>
<td>C</td>
<td>Seattle Culinary Academy Travel 1 – Spain&lt;br&gt;Intensive international culinary immersion program. Travel and learn history, language, culture, traditional and modern cuisine of a specific country through Seattle Culinary Academy’s international partners. Enhance cultural knowledge and language skills via research and travel to historic sites, cultural events, food producers and exhibits. Practice skills learned in a professional kitchen abroad. Prereq: Permission.</td>
</tr>
<tr>
<td>CUL 292</td>
<td>5</td>
<td>C</td>
<td>Seattle Culinary Academy Travel 2 – Spain&lt;br&gt;Intensive culinary immersion programs in international culture and cooking with international partners. Travel and learn history, language, culture, traditional and modern desserts, breads, and pastry techniques of the country in classroom and kitchens. Enhance language skills and cultural knowledge via research and travel to historic sites, cultural events, food producers and exhibits. Prereq: Permission.</td>
</tr>
<tr>
<td>CUL 299</td>
<td>5</td>
<td>C</td>
<td>Independent Project/Culinary&lt;br&gt;Independent study course for individual projects in the Culinary Arts field. Prereq: permission.</td>
</tr>
<tr>
<td>FSD 100</td>
<td>3</td>
<td>S</td>
<td>Health and Sanitation&lt;br&gt;Intro survey for food service students. Covers sanitation guidelines as suggested by the National Restaurant Association’s “servSafe” program and Fundamentals of Hazard Analysis of Critical Control Point (HACCP) management. Online fees apply.</td>
</tr>
<tr>
<td>FSD 101</td>
<td>1</td>
<td>S</td>
<td>Orientation Culinary Arts&lt;br&gt;Two-week module introducing the culinary kitchen lab areas. Includes equipment operation, safety and sanitation. Practice beginning knife skills.</td>
</tr>
<tr>
<td>FSD 160</td>
<td>5</td>
<td>S</td>
<td>Theory 1 – Culinary Fundamentals&lt;br&gt;Beginning level culinary fundamentals covering history, tools and equipment, flavors and pairings, product identification and breakfast cookery. Prereq: Culinary Arts enrollment or permission.</td>
</tr>
<tr>
<td>FSD 165</td>
<td>15</td>
<td>S</td>
<td>Culinary 1&lt;br&gt;Develop kitchen production skills in prep production, pantry, grill and deli; front-of-house operations; storeroom controls in purchasing and receiving; and food costing. Prereq: Culinary Arts enrollment or permission.</td>
</tr>
<tr>
<td>FSD 170</td>
<td>5</td>
<td>S</td>
<td>Theory 2 – Advanced Culinary Fundamentals&lt;br&gt;Covers intermediate culinary fundamentals including stocks and sauces, soups, meat and poultry cookery and meat, poultry and game identification. Prereq: FSD 160 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>FSD 175</td>
<td>15</td>
<td>S</td>
<td>Culinary 2&lt;br&gt;Intermediate food production with emphasis on sauce, saute line cook station, plate presentation. Continued emphasis on front of house service and operations. Prereq: FSD 165 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>FSD 180</td>
<td>5</td>
<td>S</td>
<td>Theory 3 – Garden Manager&lt;br&gt;Covers concepts of the art of garden management, charcuterie, cured and smoked meats, hors d’oeuvres, canapes, and cold food and sauces preparation. Prereq: FSD 170 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>FSD 185</td>
<td>15</td>
<td>S</td>
<td>Culinary 3&lt;br&gt;Advanced food production in saute line cooking using contemporary and classical French methods; continued studies in compound sauces, flavor enhancers and restaurant butchery. Prereq: FSD 175 with 2.0 or higher or permission.</td>
</tr>
</tbody>
</table>
FSD 190 (5) S
Theory 4 – Restaurant Cost Control
Overview of the manager's role in cost control and
the relationship between operational standards and controlling costs. Prereq: FSD
180 with 2.0 or higher or permission.

FSD 195 (15) S
Culinary 4
Continued advanced study in saute line cooking, complex garnishing and sauce building,
cold food prep and display, restaurant butchery with an emphasis on portion control,
yield, and cost analysis. Includes fine dining table side service. Prereq: FSD 185 with 2.0 or
higher or permission.

FSD 197 (1-5) S
Internship Culinary Arts
Individual internship in the culinary, restaurant, banquet and other food-related industries.
Prereq: Permission.

FSD 200 (5) S
Theory 5 – Management Techniques
Covers human resource management concepts and techniques related to the supervisor, sous chef and restaurant manager, including diversity, communication and standard operating procedures. Also examines menu and restaurant design. Prereq: FSD 190 with 2.0 or higher or permission.

FSD 205 (15) S
Restaurant Production
Final course in restaurant production track includes baking concepts and Sous Chef position training, supervising, and coordination for the Dining Room Service, Short Order and saute stations. Capstone practicum involves the planning and execution of a formal lunch or dinner event. Prereq: FSD 195 with 2.0 or higher or permission.

FSD 215 (15) S
Banquets and Catering
Final course in Banquet & Catering Track includes advanced garden manager, baking concepts and Sous Chef position training, supervising, and coordination for the Pantry and Prep stations. Capstone practicum involves the planning and execution of a formal banquet or buffet. Prereq: FSD 195 with 2.0 or higher or permission.

FSD 299 (1-15) S
Special Topics Culinary Arts
Independent study on an individual basis in the Culinary industry. Prereq: Permission.

Culinary Arts
Pastry & Baking Arts

PST 101 (5) S
Pastry Baking Orientation
Learn trade terminology, scaling and measuring procedures, mixing methods, identification and proper use of hand tools and mechanized baking equipment, plus safety procedures and sanitation. Covers portion control, baking math and ingredient functions in baking. Prereq: Enrollment in program or permission.

PST 102 (5) S
Intro to Baking Management
Learn bakery and pastry production management, including procedures and organizational tools for day to day operations of a bakery or pastry shop. Study standardized formulas, cost control, AP and EP menu mix, purchasing, receiving, storeroom organization, formula cost analysis, safety and sanitation, trade terminology, professional and ethical behavior and attitude. Prereq: PST 101 or permission.

PST 103 (4) S
Decoration Theory 1
Covers theory and practical applications of decorative confectionary mediums. Learn techniques, ingredients and tools used in centerpiece, show piece and confectionary display production, including performance test and showpiece requirements. Includes rye dough, Royal icing flowing, marzipan, macaronade, rose paste, and chocolate tempering. Prereq: PST 102 or permission.

PST 104 (4) S
Decoration Theory 2
Covers theory and practical applications of decorative confectionary mediums. Learn techniques, ingredients and tools used in centerpiece, show piece and confectionary display production, including performance test and showpiece requirements. Covers pastillage, gum paste, rolled fondant, modeling chocolate, rock sugar, and poured sugar. Prereq: PST 102 or permission.

PST 105 (4) S
Decoration Theory 3
Covers theory and practical applications of decorative confectionary mediums. Learn techniques, ingredients and tools used in centerpiece, show piece and confectionary display production, including performance test and showpiece requirements. Covers pulled sugar, flower piping, rice paper flowers, salt dough, and nougatine. Prereq: PST 102 or permission.

PST 111 (15) S
Baking 1

PST 112 (15) S
Pastry 1
Covers French pastry and beginning decorating and finishing. Make primary doughs and bases using classical techniques: Pate Feuillete, pate a choux, pate sucree and assorted pie doughs. Includes elementary assembling and finishing for cakes and tarts, pastry ingredients and their functions, baking methods, assessment of doughs and batters, sponges, safety and sanitation. Prereq: PST 111, FSD 100 and HOS 203 with 2.0 or better or permission.

PST 113 (15) S
Baking 2
Covers beginning and intermediate bread baking, terms and techniques of bread production including proper mixing, fermentation, shaping, proofing, baking and finishing. Prepare laminated and rich yeast doughs (Viennoiserie). Deepen learning about bread ingredients and their functions, baking methods, lamination procedures, assessment, safety and sanitation. Prereq: PST 112 or permission.

PST 197 (1-5) S
Internship Pastry Baking
Individual internship in Pastry and/or Baking Arts industries. Prereq: permission.

PST 211 (15) S
Pastry 2
French pastry and plated desserts. Make more complex pastry doughs and bases using classical techniques. Includes dessert ingredients and their functions, advanced product finishes and decorations, plated dessert design and production. Study dessert sauces and garnishes, flavor profiles and combinations, banquet desserts, safety and sanitation. Prereq: PST 113 or permission.
Course Descriptions

SEATTLE COLLEGES 2016-2018 CATALOG

Culinary Arts

Specialty Desserts

BAK 101 (4) C
Intro to Desserts & Bread
Intro to baking/cooking methods and to the scientific principles used in this field. Covers ingredient responses to temperature, friction and storage; mise en place; ingredient functions and characteristics; tools/equipment; and trade terminology. Includes discussion of yeast doughs, quick breads, syrups, icings, sauces and creams, pastries, pies and tarts, cake mixing and baking. Prereq: Admission to program.

BAK 102 (3) C
Bread Food Preservation
Presents theory and ingredients, including why specific baking techniques work. Emphasizes the formation and exercise of judgment in baking practice, relationships between procedures and products and evaluation of product quality. Includes discussion of bread history; buttercreams; soufflés and meringues; frozen desserts; chocolate sugar/work; bread and bread sculpture; centerpieces; and wedding cakes. Prereq: BAK 101.

BAK 103 (4) C
Science and Practice of Baking with Chocolate
Presents advanced theory and ingredients in the chocolate making process, fair trade practices, cacao bean growing and chocolate making. Learn the scientific principles of sugar process, sugar alcohol, sugar cooking stages, fat functions and characteristics. Prereq: Successful completion of previous quarter's Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

BAK 105 (1.5) C
Restaurant Baking: Theory
For culinary arts students. Expands on science and principles of baking, including yeast doughs and formulas, icing techniques, basic cake types and characteristics of desserts. Prereq: Successful completion of 2nd quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.

BAK 111 (6) C
Intro Desserts & Bread
Application of baking theory to production. Includes mise en place and preparation of a variety of doughs, breads/rolls, breakfast breads/pastries, cookies, tarts, sponge and tea cakes and decorated cakes. Prereq: Admission to program.

BAK 112 (8) C
Beg Dessert/Bread: Practicum
Further application of baking theory to production, including exercising judgment and product success/failure analysis. Includes preparation of pastry creams, egg foams, butter creams, meringues, mousses, soufflés, custards, frozen desserts, holiday desserts, compotes, chocolate candies, sauces and fillings. Prereq: Successful completion of 1st quarter Specialty Desserts and Breads Program courses with a minimum GPA of 2.0 in each course.

BAK 113 (8) C
Intermediate Dessert/Bread: Practicum
Development of professional bakery skills, including organization, accuracy and communication. Practice assessment of product texture, taste and appearance. Includes preparation using advanced techniques of intricate chocolate work, European cakes and plated desserts, with increased emphasis on presentation and artistic skills. Prereq: Successful completion of 2nd quarter Specialty Desserts and Breads Program courses with a minimum GPA of 2.0 in each course.

BAK 115 (1) C
Restaurant Baking: Practicum
For culinary arts students. Production of baked goods including ganache, custards, creams, puddings, mousses and purees. Prereq: Successful completion of 2nd quarter Culinary Arts courses with a 2.0 or better.

BAK 117 (1) C
Intro to Cheese Making
For culinary academy students. Learn cheese making and fermentation techniques in the culinary field, including cheese diversity, milk composition, and the eight basic steps. Prereq: Successful completion of previous quarter's Specialty Desserts and Breads or Culinary Arts Program courses with a minimum GPA of 2.0 in each course.

BAK 123 (2) C
Advanced Dessert/Bread: Theory
Learn, analyze, and develop an understanding for the components of successful wedding cakes and petit fours. You will explore current industry standards in regard to flavor profiles, design components, and structure. This course includes a review and discussion on a variety of preservation methods and techniques for preserving summer produce. Prereq: Successful completion of 3rd quarter Specialty Desserts and Breads Program courses with a minimum GPA of 2.0 in each course.

BAK 124 (8) C
Advanced Buffet Desserts/Wedding Cakes/Preservation
Design and develop a line of wedding cakes and petits fours using the latest industry techniques. Produce jam and preserves using organic fruits and vegetables. Includes practicing the seed-to-plate cooking model and designing and marketing a bakery display case. Prereq: Successful completion of 3rd quarter Specialty Desserts & Breads courses with a minimum GPA of 2.0 in each course.
**Finding Courses**

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

**Prefix to Name**

**HIN** . . . . . . . . . Watch Technology

**Name to Prefix**

Watch Technology . . . . . . . . . HIN

Common Course Numbering is on page 224.

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**BAK 125 (8) C**

**Advanced Desserts/Breads-Prac**

Design and develop a line of bakery goods. Purchase and inventory goods and calculate cost analysis as an extension of the class project. Prereq: BAK 113 or permission.

**BAK 126 (3) C**

**Advanced Food Preservation**

Learn scientific principles as applied to lactic acid fermentation including cheese making, charcuterie and vegetable ferments. Explore scientific principles applied to yeast products, fermented foods and food preservation including flour facts and alcohol fermentation.

**BAK 299 (1-5) C**

**Special Projects/Commercial Baking**

Independent study course for individual projects in the Commercial Baking/Pastry field. Prereq: instructor permission

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**Dental Hygiene**

**Bachelor of Applied Science in Allied Health – Dental Hygiene Track**

Students must be accepted into the program in order to take these courses.

**DHY 100 (4) C**

**Fundamentals of Dental Hygiene I**

Examines the theory and scientific principles underlying the assessment, planning and implementation of clinical procedures in dental hygiene. Focuses on the scope of practice in Washington state, legal and ethical principles that govern the profession and professionalism. Learn effective communication, infection control, instrumentation, vital signs assessment, screening examinations, documentation and use of computers.

**DHY 101 (3) C**

**Clinical Dental Hygiene I**

First in a series of supervised clinical and pre-clinical experiences involving the assessment, planning and implementation of patient care and clinical dental hygiene.

**DHY 102 (2) C**

**Health Promotion**

Explores the process of health-related behavioral change through planned interventions in patient education and health promotion. Emphasizes theories of change, the effect of cultural norms and values in client-provider interaction and communication skills to assess the patient’s perceptions, needs and motivation to change.

**DHY 103 (4) C**

**Dental Radiology I**

Study of radiation hygiene and the fundamentals of radiology relevant to dentistry. Includes demos and practice in exposing, processing and interpreting intra-oral radiographs. Covers principles and rules for patient and operator safety.

**DHY 104 (2) C**

**Preventive Dentistry**

Study of dental deposits, dental diseases, causes and prevention including the relationship between plaque and oral disease processes, dental caries and gingivitis. Includes use and methods of researching professional literature and using oral health prevention measures such as patient education, self-care, fluoride and physiotherapies.

**DHY 105 (2) C**

**Oral Biology**

Study of oral histology, including the microscopic structures and organization of tissues of the teeth, the embryologic development of the primary and secondary dentitions and the development of the oral cavity. Covers general pathology, including the mechanisms and characteristics of disease and disease process.

**DHY 107 (3) C**

**Pharmacology**

Learn the general pharmacological and therapeutic actions of drugs with emphasis on those used in dentistry. Includes dosage, routes of administration, drug interactions, drug effects on the oral cavity, indications, contra-indications and factors in patient treatment planning.

**DHY 108 (2) C**

**Periodontology I**

Learn the periodontal structures of the mouth and periodontal instrumentation, including types of instruments, names, setups and their proper application to periodontal therapy and treatment. Covers techniques for providing periodontal therapy, using adjunctive periodontal therapeutic agents, patient selection, treatment and post-treatment evaluation.

**DHY 109 (3) C**

**Human Pathophysiology**

Study of human pathology including the etiology, predisposing factors, mechanisms of disease and characteristics of the disease process in each body system. Emphasizes specific disease entities that are most commonly seen in the clinical dental hygiene setting or that may influence an individual's dental care.

**DHY 110 (2) C**

**Head and Neck Anatomy**

Study the anatomy and function of the head and neck. Learn the location, characteristics and function of the hard and soft tissues of the head, neck and oral cavity, including all anatomic features, the circulatory system, muscular system, cranial nerves and teeth.

**DHY 111 (3) C**

**Dental Anatomy and Morph**

Study the anatomy and function of the head and neck. Learn the location, characteristics and function of the hard and soft tissues of the head, neck and oral cavity, including all anatomic features, the circulatory system, muscular system, cranial nerves and teeth.

**DHY 112 (3) C**

**Dental Radiology II**

Continue study of radiation hygiene and radiology relevant to dentistry. Includes laboratory demos and practice in exposing, processing and interpreting intra-oral radiographs and extra-oral techniques.

**DHY 113 (3) C**

**Restorative Materials I**

First of six-course sequence in clinical restorative dentistry. Focuses on the chemical, physical and mechanical properties of dental materials commonly used by hygienists and on their manipulation. Learn to place restorations into prepared cavities.
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</table>
DHY 233  (2)  C
Restorative Materials 3
Third laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins in the laboratory and patients in the clinic. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

DHY 234  (2)  C
Restorative Materials 4
Fourth laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

DHY 235  (2)  C
Restorative Materials 5
Fifth laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

DHY 236  (2)  C
Restorative Materials 6
Final laboratory course in restorative dental practice and materials focusing on correct placement of dental restorations on mannequins and patients. Develop manipulative and carving skills in placement of amalgam and composite restorations as allowed by Washington state law.

DHY 238  (1)  C
Professional Issues
Covers the practice of dental hygiene including résumé development, interviewing techniques, patient scheduling systems, employment contracts, dental staff relations, understanding the business aspects of a dental practice, and development of a personal philosophy of practice.

DHY 240  (2)  C
Fundamentals of Dental Hygiene VII
Focuses on the scientific principles underlying clinical practice dental hygiene. Focuses on inter-professional relations, team-building, sharing new knowledge and the responsibilities of a practicing dental hygienist for professional development and lifelong learning.

DHY 241  (8)  C
Clinical Dental Hygiene 7
Seventh in a series of supervised clinical experiences with patient care involving the assessment, planning and implementation of clinical procedures in dental hygiene.

DHY 245  (1-5)  C
Applied Practice in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 246  (1-5)  C
Applied Practice in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 247  (1-5)  C
Applied Practicum in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 248  (1-5)  C
Applied Practice in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 249  (5)  C
Applied Practice in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 250  (2)  C
Oral Biology
Study of oral histology including developmental origins and microscopic organization of selected oral and facial structures. Includes embryonic development of the face and palate, and common craniofacial malformations. Examines the formation, eruption and histological organization of the teeth and their supporting tissues as well as the oral mucosa and salivary glands.

DHY 251  (3)  C
Human Pathology
Study of human pathophysiology includes the etiology, predisposing factors, mechanisms of disease, and characteristics of the disease process in each body system. Emphasizes specific disease entities most commonly seen in the clinical dental hygiene setting or that may influence an individual's dental care.

DHY 252  (3)  C
Fundamentals Dental Hygiene I
Examines the theory and scientific principles underlying the clinical practice of dental hygiene. Emphasis on oral screening, infection control, and professionalism.

DHY 253  (3)  C
Clinical Dental Hygiene I
Apply the theory and scientific principles underlying dental hygiene practice. Covers professionalism, clinical preparation of the examining area, safety, patient privacy, documentation, and screening techniques.

DHY 254  (2)  C
Health Promotion
Intro to dental health education, patient education, health promotion, and the process of health-related behavioral change. Emphasizes assessment of educational needs, client-provider interaction, communication skills, cultural competence in healthcare delivery, and motivation to change.

DHY 255  (2)  C
Radiology I
Principles of oral radiology imaging stressing the physics of x-ray production and biologic effects of ionizing radiation. Includes radiation safety and protection, dental radiographic examination, and radiographic interpretation of anatomical structures of the head and oral cavity.

DHY 256  (2)  C
Dental Radiology I Practicum
Intro to dental x-ray equipment, processes and techniques. Emphasizes patient and operator safety, evaluation of technique and imaging quality, darkroom and digital operations, beginning level proficiency in exposing and analyzing intra-oral dental radiographs.

DHY 257  (2)  C
Head & Neck Anatomy
Didactic sessions teaching anatomy and function of the head and neck. Course draws on concepts taught in general anatomy and physiology classes. Students are introduced to the location, characteristics and function of all anatomical structures, including all hard and soft tissues and all components of the circulatory system and cranial nerves. Prereq: Permission.

DHY 258  (2)  C
Dental Anatomy & Morphology
Intro to nomenclature, anatomy, morphology and functions of the primary and permanent dentition. Focuses on healthy, normal end of the health/disease continuum and provides foundation for further dental science, clinical and restorative dental hygiene practice.
DHY 259 (1) C
Dental Anatomy & Morphology (Lab)
Apply the theory and scientific principles of specific anatomical characteristics to lab drawings and wax carving. Intro to fine hand-skills and basic instrumentation used for hygiene and restorative procedures.

DHY 260 (1) C
Emergency Management
Introduced to the role of the dental team in the identification and treatment of medical emergencies, including prevention, patient assessment, stress reduction protocol, safe use of emergency drugs and equipment. Participate in class simulations of emergency treatment for common medical emergencies in the dental office.

DHY 261 (2) C
Preventive Dentistry
Intro to primary prevention methods within the scope of dental hygiene practice. Emphasizes the relationship between oral disease processes and oral health preventive measures, home-care education of the patient, and methods of preventive care implemented by dental hygienists.

DHY 282 (1-8) C
Applied Practice in Dental Hygiene
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 298 (5) C
Special Projects in Dental Hygiene
Individualized study in dental hygiene-related subject matter arranged to meet the needs of students with specific levels of skills and background.

DHY 300 (4) C
Clinical Dental Hygiene II
Apply the theory and scientific principles underlying dental hygiene practice. Intro to assessment of gingival and oral soft tissues, selected instrumentation, and periodontal and dental charting.

DHY 301 (4) C
Clinical Dental Hygiene III
Apply the theory and scientific principles underlying dental hygiene practice. Intro to patient management, treatment planning, and dental hygiene treatment techniques.

DHY 302 (8) C
Clinical Dental Hygiene IV
Apply the scientific principles underlying the assessment, planning and implementation of clinical procedures. Emphasizes biochemistry of food, nutritional counseling in dental hygiene practice and personal, professional and community issues related to HIV/AIDS.

DHY 303 (3) C
Fundamentals of Dental Hygiene II
Examines the theory and scientific principles underlying the clinical practice of dental hygiene with emphasis on integration of screening information to formulate goals for planning dental hygiene treatment needs.

DHY 304 (2) C
Fundamentals of Dental Hygiene III
Examines the theory and scientific principles underlying the clinical practice of dental hygiene with emphasis on principles of instrumentation, dental hygiene diagnosis, and professional development activities.

DHY 305 (2) C
Fundamentals of Dental Hygiene IV
Focuses on the fundamental scientific principles underlying dental hygiene with emphasis on principles of instrumentation, dental hygiene diagnosis, and personal, professional, and community issues. Prereq: Permission.

DHY 306 (2) C
Dental Materials I
This is the first of two didactic courses focusing on the physical, chemical, mechanical and biological properties of dental materials used in both direct and indirect restorative procedures. Prereq: Successful completion of previous quarter’s B.A.S. in Allied Health Dental Hygiene courses with a minimum grade of 2.5 in each course or permission.

DHY 307 (1) C
Restorative Practice I (Lab)
Covers clinical restorative dentistry focusing on the chemical, physical, mechanical properties of commonly used dental materials and their uses, manipulation and application. Learn to handle and manipulate different types of restorative filling materials into prepared cavities.

DHY 308 (2) C
Restorative Dentistry II
This is the second and final didactic course focusing on the physical, mechanical, chemical and biological properties of dental materials commonly used in direct and indirect restorative procedures, and basic knowledge in materials used in preventive, periodontics, restorative and other specialty fields in dentistry. Prereq: Permission.

DHY 309 (1) C
Restorative Practice II
This is the second lab course focusing on the physical, mechanical, chemical and biological properties of dental materials commonly used in direct and indirect restorative procedures, and basic knowledge in materials used in preventive, periodontics, restorative and other specialty fields in dentistry. Prereq: Permission.

DHY 310 (2) C
Advanced Restorative Practice I
Covers restorative dental practice and materials, focusing on correct placement of dental restorations on mannequins and in the clinic on patients. Practice and develop manipulative and carving skills in the placement of amalgam and composite restorations as allowed by Washington State law.

DHY 311 (2) C
Pain Control Anesthesia
Curriculum under development at time of printing.

DHY 312 (2) C
Pain Control Anesthesia Practice
Curriculum under development at time of printing.

DHY 313 (3) C
Periodontics I
Examines periodontal structures of the mouth from health to disease including clinical and histological aspects of periodontal disease. Includes various classifications of periodontal diseases, and disease progression as it relates to microbiology, etiology, and host response. Learn techniques of periodontal therapy using adjunctive chemotherapeutic agents and oral hygiene aids.

DHY 314 (2) C
Dental Radiology II
Study of dental radiology including the principles and application of a full range of intra-oral, extra-oral, digital and film radiographic examinations, advanced interpretation for diagnosis of dental anatomy, trauma, lesions, caries and pathology.
**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN . . . . . . . . . Watch Technology

NAME TO PREFIX
Watch Technology . . . . . . . HIN

Common Course Numbering explanation is on page 224.

**Course Descriptions**

**DHY 315 (1) C**
**Dental Radiology II Practice**
Learn application of basic radiographic examination techniques for dental patients stressing adaptation of techniques, consideration of presenting problems, variations of normal, supplemental radiographic procedures, analysis of outcomes, and advanced interpretation of diagnostic information.

**DHY 318 (2) C**
**Oral Pathology**
Study lesions, pathologies, and abnormal conditions of the head, neck and oral cavity of significance in the clinical practice of dental hygiene.

**DHY 323 (3) C**
**Pharmacology**
Study the general pharmacological and therapeutic actions of drugs with emphasis on those used in dentistry. Includes nomenclature, dosage, routes of administration, drug interactions, drug effects on the oral cavity, indications, contraindications, factors in patient treatment planning and legal factors involved in dispensing.

**DHY 382, 383, 384 (1-8) C**
**Applied Practice In Dental Hygiene**
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

**DHY 391 (1) C**
**Community Dental Health I**
Introduction to public dental health. Presents strategies to improve oral health outcomes through evidence-based research techniques, planning, and implementation of public health program models. Provides a foundation for a group community oral health project. Emphasis on community needs assessment and choosing a target population. Prerequisite: Completion of B.A.S. in Dental Hygiene previous quarter's courses with a minimum grade of 2.5 in each course or permission.

**DHY 400, 401 (8) C**
**Advanced Practice Dental Hygiene I**
Supervised clinical experiences with patient care involving the assessment, planning, implementation, and evaluation of clinical procedures in dental hygiene. Prerequisite and corequisite: Enrollment into the dental hygiene program.

**DHY 404, 405, 406 (3) C**
**Principles Dental Hygiene Practice I**
This course focuses on the scientific principles underlying the assessment, planning and implementation of clinical procedures in dental hygiene. This course emphasizes higher level concepts needed for successful board certification and national examinations. Course prerequisite: completion and presentation of a Capstone project. Prerequisite and corequisite: Enrollment into the dental hygiene program.

**DHY 407 (1) C**
**Strategies Capstone Project**
This course is an introduction to a culminating educational experience whereby students have the opportunity to demonstrate mastery of learning in the field of dental hygiene. The course integrates experiential learning, coursework knowledge, clinical application, self-analysis along with strategies for completion and presentation of a Capstone project. Prerequisite and corequisite: Enrollment into the dental hygiene program.

**DHY 408 (1) C**
**Capstone**
This course concludes the culminating educational experience whereby students have the opportunity to demonstrate mastery of learning in the field of dental hygiene. The course integrates experiential learning, coursework knowledge, clinical application, self-analysis allowing the student to integrate and evaluate their overall educational experience. Prerequisite and corequisite: Enrollment into the dental hygiene program.

**DHY 409 (2) C**
**Ethics & Jurisprudence**
Focuses on the ethical, legal and regulatory issues facing the dental hygienist practicing in a private dental office, in a community agency, or in independent practice. Examines professional traits, theories of moral development, ethical principles, state dental practice act, the relationship with patients and employers, and risk management.

**DHY 410 (2) C**
**Advanced Restorative Practice II**
Focuses on correct placement of dental restorations on mannequins and in the clinic on patients. Students practice and develop manipulative and carving skills in the placement of amalgam and composite restorations as allowed by Washington State law.

**DHY 411 (2) C**
**Advanced Restorative Practice III**
Focuses on correct placement of dental restorations on mannequins and in the clinic on patients. Students practice and develop manipulative and carving skills in the placement of amalgam and composite restorations as allowed by Washington State law.

**DHY 412 (2) C**
**Advanced Restorative Practice IV**
Focuses on correct placement of dental restorations on mannequins and in the clinic on patients. Students practice and develop manipulative and carving skills in the placement of amalgam and composite restorations as allowed by Washington State law.

**DHY 413 (2) C**
**Periodontics II**
Study of advanced periodontal diseases, including cause, recognition, prevention, and treatment planning. Also covers periodontal surgery and implant care. Reviews periodontal concepts through case studies.

**DHY 414 (1) C**
**Selective Populations**
Introduction to etiologies, signs and symptoms, prognoses, medications, and oral healthcare strategies to optimize oral health outcomes for patients with select medical conditions. Prerequisite: Successful completion of previous quarter's B.A.S. in Allied Health Dental Hygiene courses with a minimum grade of 2.5 in each course or permission.

**DHY 415 (1) C**
**Selected Populations Practice**
This course consists of various laboratory externships through existing community organization affiliate agreements which provide supervised student experiences. Students will adapt the Dental Hygiene Process of Care for medically compromised high-risk patients to optimize oral health outcomes and provide caregiver oral health education as appropriate. Enrollment into the dental hygiene program: course prerequisite.

**DHY 416 (1) C**
**Professional Issues**
This course will explore issues encountered in a variety of dental hygiene employment settings including resume preparation, interview success techniques, malpractice insurance, employment contract negotiation, conduct and professional licensure, fundamentals of dental practice business concepts, employment team concepts, personal practice philosophy development, and the creation of a personal professional development plan. Prerequisite: Enrollment into the dental hygiene program.
Course Descriptions

DHY 419  (2)  C  
Community Dental Health II  
This course is the study of public and community health methodologies in oral disease prevention and program development. Students will establish contact with populations to develop presentations targeted to a specific demographic as a community health program or project. Students will learn the basics of research including data collection, dental indices application, biostatistics utilization, and program evaluation. Prereq and Coreq: Enrollment into the dental hygiene program.

DHY 420  (1)  C  
Community Dental Health III  
This course is the advanced study of public and community health methodologies in oral disease prevention and program development. Students will present an oral health program to target populations addressing a specific need and demonstrate research methodologies including data collection, dental indices application, biostatistics utilization, and program evaluation. Prereq and Coreq: Enrollment into the dental hygiene.

DHY 482  (1-8)  C  
Applied Practice in Dental Hygiene  
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 483  (1-8)  C  
Applied Practice in Dental Hygiene  
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 484  (1-8)  C  
Applied Practice in Dental Hygiene  
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

DHY 485  (1-8)  C  
Applied Practice in Dental Hygiene  
Applied practice in dental hygiene to meet the individual needs of students who require additional practice and reinforcement of techniques and skills in dental hygiene.

---

Diezel and Heavy Equipment

NOTE: These courses include instruction in safety, environmental awareness, human relations and leadership.

HDM 100  (8)  S  
Preventive Maintenance and Inspection  
This course focuses on skills required by the National Automotive Technicians Education Foundation (NATEF) including safety procedures compliant with OSHA regulations, hand tools, power tools, measuring tools, and equipment used in the repair of both trucks and equipment in the heavy duty diesel mechanic industry. Inspection and maintenance are also a major part of this course. Prereqs: MVM 101, BUS 159, HDM 171, MAT 110. Coreq: HDM 105.

HDM 110  (8)  S  
Intro to Electrical  
This course introduces students to skills necessary for the National Automotive Technicians Education Foundation (NATEF) certification including electrical theory, diagnosing electrical system problems, removal, repair and installation of electrical components from vehicles. The function and construction of each component, diagnosis and service procedures will be covered. Prereqs: MVM 101, BUS 159, HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 115.

HDM 115  (8)  S  
Advanced Electrical  
Building on the introductory course, students will focus independently on electrical theory, data scan tools, and diagnosing electrical and electronic system problems including truck accessories necessary for NATEF certification. The function and construction of each component, and diagnosis and service procedures will be covered. Prereqs: MVM 101, BUS 159, HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 110.

HDM 120  (8)  S  
Tires And Suspension  
This course will cover diagnostic theory, systems problems and evaluations, removal, repair and installation of tires, alignment, steering and suspension components of heavy duty diesel vehicles to meet NATEF certification. Prereqs: MVM 101, BUS 159, HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 125.
### HDM 145 (8) S
**Gasoline Engines**
This course focuses on theory, diagnosing system problems and evaluation, and removal, repair and installation of gasoline engine components from vehicles to meet ASE standards. The function and construction of each component, and diagnosis and service procedures will be covered. Prereq: MVM 101, BUS 159. HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 140.

### HDM 150 (8) S
**Diesel Engine Diagnosis / Remove, Replace**
Contents of this course include: Diesel engine theory, diagnosing system problems and evaluation, and removal and installation of a diesel engine from a vehicle to meet NATEF certification. The function and construction of each component, and their diagnosis and service procedures will be covered. Prereq: MVM 101, BUS 159. HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 155.

### HDM 155 (8) S
**Diesel Engine Rebuild**
This course covers advanced theory, diagnosing systems problems and evaluation, and the rebuilding of a diesel engine to meet NATEF certification. The advanced function and construction of each component, and their diagnosis and service procedures will be covered. Prereq: MVM 101, BUS 159. HDM 171, MAT 110 with a 2.0 or higher or by instructor permission. Coreq: HDM 150.

### HDM 171 (2) S
**Lift Truck Operator**
Learn current regulations and practical fork lift operation in order to obtain a lift truck operator’s safety certification card. Prereq: HDM 101 or permission.

### HDM 197 (1-7) S
**Internship Heavy Duty Diesel**
Gain experience and practice with mechanical repair procedures and skills performed regularly on the job site. Tasks, skills content, format and projects vary depending on the job site. Prereq: Permission.

### HDM 198 (1-10) S
**Special Topics Heavy Duty Repair**
Study selected procedures and skill tasks for truck and heavy equipment technicians. Course content, format and projects vary. Prereq: Permission.

### HDM 298 (1-10) S
**Advanced Special Topics – Heavy Duty Mechanics Repair**
Advanced study of selected procedures and skill tasks for truck and heavy equipment technicians. Course content, format and projects vary. Prereq: Prior work site experience and permission.

#### Drafting Design

### DSN 151 (11) N
**Intro to Engineering Graphics**
Addresses engineering drafting and design practices for the mechanical design and manufacturing industries. Emphasis on lettering, line work, reading scales and applied geometry using freehand sketching and manual mechanical drawing techniques. Fundamentals of orthographic projection include blueprint reading, dimensioning techniques, section views, and auxiliary views. Develop visualization skills through isometric drawing and descriptive geometry. Includes ANSI/ASME and ISO drafting standards where appropriate. Take concurrently with DSN 163. Prereq: Computer skills helpful.

### DSN 152 (11) N
**Engineering Graphics for Mechanical Design**
Continuation of DSN 151. Emphasis on advanced mechanical assembly drawing practices and concepts. Produce detailed, sub-assembly and assembly drawings of mechanical designs. Working drawing sets incorporate threaded fastener specifications, dimensioning and tolerancing practices, including ANSI and ISO standard fits and allowances, bills of material, and drawing revision practices. Introduces flat pattern and bend calculations, dimensioning for CNC manufacturing processes, methods of forming and fabrication, and captive fasteners through pattern drafting with an emphasis on documentation requirements for sheet metal fabrication. Take concurrently with DSN 261. Prereq: DSN 151 and 163.

### DSN 153 (11) N
**Statics & Strengths**
Third of 3 courses which address engineering drafting and design practices for the mechanical design and manufacturing industries. Intro to engineering physics through the study of statics and strengths of materials. Study how forces affect mechanical structures at rest or during unaccelerated motion. Examine concurrent-coplanar, non-concurrent-coplanar, and parallel force systems and calculate their resultants, equilibrants or moments. Study frictional forces and strengths of materials commonly used in mechanical design and manufacturing for their ability to withstand mechanical and thermal forces. Use technical sketching for conveying information, including welding symbols, bolted or riveted connections, and welded joints. Take concurrently with MAT 098. Prereq: DSN 152, DSN 261.

### DSN 163 (4) N
**Intro to Autocad – Mechanical Design**
Learn the AutoCAD drafting and design software. Focuses on the development of 2-dimensional drawing and editing skills using AutoCAD software to produce engineering drawings. Includes dimensioning, adding text and notes, library symbol (block) and attribute definition, Modelspace and Paperpace drawing setup and hardcopy output (plotting). Uses the most current version of AutoCAD. For degree and certificate students, take concurrently with DSN 151. Computer skills helpful.

### DSN 164 (4) N
**Intro to Pro/Engineer**
Encompasses the fundamentals of Pro/Engineer parametric modeling CAD software. Includes system fundamentals, base and construction feature creation, sketching techniques, datum construction, application to design task, drawing creation, and construction of assemblies from created parts.

### DSN 165 (4) N
**Intro to Solidworks**
First of 2 courses in the SolidWorks mechanical design and modeling software. Intro to creating 3D CAD models using a feature-based, parametric solid-modeling design. Includes base, boss and cut feature creation using extruded, revolved, simple swept or simple lofted shapes; sketching techniques for capturing design intent using automatic or user-defined geometric and dimensional constraints; building assemblies from created parts; and detail and assembly drawing creation and bill of material insertion.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSN 250</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Schematic CAD Drafting</td>
<td></td>
<td>F ocuses on drafting of schematic diagrams for electronic circuits and the design of printed circuit boards (PCB) using a major CAD software package for schematic creation and PCB design. Design PC boards utilizing standard through-hole technology and surface mount technology. Includes manufacturing methods for PCBs, specifications and standards for electronic schematics and design of PCBs. Prereq: DSN 152 or EET 107 or EET 161.</td>
</tr>
<tr>
<td>DSN 255</td>
<td>7</td>
<td>N</td>
</tr>
<tr>
<td>Lab Schematic CAD Drafting</td>
<td></td>
<td>Develop skills in drafting of schematic diagrams for electronic circuits and the design of printed circuit boards (PCB) using CAD software dedicated for schematic creation and PCB design. Prereq: DSN 250 (may be taken concurrently).</td>
</tr>
<tr>
<td>DSN 261</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Advanced Autocad for Mechanical Design</td>
<td></td>
<td>Second of 2-course sequence to learn AutoCAD drafting and design software. Presents advanced concepts, including three dimensional (3D) wireframe, surface and solid modeling for the mechanical design process. Covers creation of 2D documentation using DXF models and Paperspace drawing setup techniques. Presents data translation, using DXF, IGES, and SAT file formats to share data between other CAD software programs. Incorporates an overview to highlight changes in commands and functionality for students upgrading from previous releases of AutoCAD. Prereq: DSN 163.</td>
</tr>
<tr>
<td>DSN 264</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Advanced Pro/Engineer</td>
<td></td>
<td>The second quarter of Pro/Engineer includes advanced modeling for sheet metal, plastics molding, casting and other processes; drawings and assemblies; tolerance stack-ups and interferences; and advanced engineering topics such as import/export, SLA files, and mass properties. Prereq: DSN 164 or instructor permission.</td>
</tr>
<tr>
<td>DSN 266</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Advanced Solidworks &amp; Parameters</td>
<td></td>
<td>Second of a 2-course sequence to learn the SolidWorks mechanical design and modeling software. Includes troubleshooting problems with parametric features, advanced data translation, sheet metal design, advanced swept and lofted shapes, generation of parametric surfaces, design table creation of part families, part &amp; assembly configuration management, top-down assembly modeling and advanced detail drawing generation. Prereq: DSN 165 or instructor permission.</td>
</tr>
<tr>
<td>DSN 271</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Draft &amp; Design for Polymers</td>
<td></td>
<td>Designs and process considerations for plastic, ferrous and non-ferrous metals. Materials definition through chemical and physical properties. Lab, lecture and field trip experiences. Prereq: DSN 153, MAT 098, or instructor permission.</td>
</tr>
<tr>
<td>DSN 272</td>
<td>11</td>
<td>N</td>
</tr>
<tr>
<td>Mechanical Design Application</td>
<td></td>
<td>Intro to practical engineering mechanics and strength of materials. Design applications include casting, design, and drafting; spring design using the computer as a design tool; gear terminology; complex mechanism design. Prereq: DSN 164 or 165, 271, 272 and 274.</td>
</tr>
<tr>
<td>DSN 273</td>
<td>7</td>
<td>N</td>
</tr>
<tr>
<td>Mechanical Production Design Applications</td>
<td></td>
<td>Advanced applications include design study, layout and documentation principles for mechanical packaging designs for electronic products; drawing trees; tolerance studies; and interference studies. Integrates DSN 271 and DSN 272. Prereq: DSN 164 or 165, 271, 272 and 274.</td>
</tr>
<tr>
<td>DSN 274</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Geometric Dimensions &amp; Tolerance</td>
<td></td>
<td>For those involved in mechanical drafting, design, engineering, manufacturing, and quality control. Involves the principles of dimensioning and tolerancing as defined by ASME Y14.5M-1994 with additional references to the internal standard ISO-1101. Includes detailed comparisons with standard dimensioning practices, symbology application methods, measuring techniques, and the benefits from the use of Geometric Tolerancing. Prereq: DSN 152 or equivalent industry experience.</td>
</tr>
<tr>
<td>DSN 275</td>
<td>7</td>
<td>N</td>
</tr>
<tr>
<td>Drafting &amp; Design Polymers</td>
<td></td>
<td>Design and process considerations for plastic, ferrous and non-ferrous metals. Materials definition through chemical and physical properties. Prereq: DSN 271 (may be taken concurrently), 274, and 264 or 165, or instructor permission.</td>
</tr>
<tr>
<td>DSN 281</td>
<td>4</td>
<td>N</td>
</tr>
<tr>
<td>Autocad for Mechanical Applications</td>
<td></td>
<td>Panel layouts, auto-dimensioning, formatting and drawing for NC and CNC process operations, library-building, user-defined menu for symbology and primitives, file manipulation, storage retrieval, paper space applications, grouping, revisioning and plotting. Intro to 3-D wire frame and AME. Prereq: DSN 163 or equivalent work experience.</td>
</tr>
<tr>
<td>DSN 298</td>
<td>5</td>
<td>N</td>
</tr>
<tr>
<td>Special Topics in Engineering Design Technology</td>
<td></td>
<td>A study of selected topics in Engineering Design Technology (electro mechanical drafting) as considered appropriate by the instructor and/or electromechanical drafting faculty. Course content, format, and projects vary depending on topics. Prereq: Permission of instructor and applicable experience. Lab fee varies.</td>
</tr>
</tbody>
</table>

### Drama

#### DRMA 101
Intro to Theatre
- Intro to theatrical experience through play analysis, acting, directing, critique, stage and costume design, with emphasis on theatre as a performance art.

#### DRMA 103
Fundamentals of Theatrical Design
- Foundation for all areas of theatrical and entertainment design: costume, scenery, lighting and art direction. Explores the creative process, elements of design and the relationship between text and visual expression. Intro to various mediums and methods of artistic presentation while learning the elements needed to visually communicate responses to literary and musical sources.

#### DRMA 105
Intro to World Theater
- Intro to theatrical practices from different cultures. Analyze scripts, videotapes and live performances through theoretical, cultural, and historical readings. Examine how the performance or script reflects on the culture that produced it. Relate current theatrical practices to the larger global society. Prereq: ENGL & 101 eligibility.

#### DRMA 108
Rehearsal & Performance
- Participation in rehearsal and performance process culminating in performance. Audition or instructor permission.

#### DRMA 109
Rehearsal & Performance
- Participation in rehearsal and performance process culminating in performance. Audition or instructor permission.

#### DRMA 110
Rehearsal & Performance
- Participation in rehearsal and performance process culminating in performance. Audition or instructor permission.
**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

**PREFIX TO NAME**

**HIN . . . . . . . Watch Technology**

**NAME TO PREFIX**

**Watch Technology . . . . . . . HIN**

Common Course Numbering explanation is on page 224.

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**DRMA 112 (5) C**

**American Sign Language Theatre**

Intro to artistic sign language expression and the principles of stage acting. Focuses on guided developmental processes, improvisation, scene study, technique and a working knowledge of character creation for the stage. Covers translating English to ASL. Prereq: ASL& 222 or permission.

---

**DRMA 114 (5) C**

**Mime and Physical Comedy**

Learn physical techniques for acting with the whole body and apply specific mime, movement and acting skills. Explore mime as playwright, creating original mime performances and presenting them to an invited public audience.

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**DRMA 116 (5) N**

**Fundamental Acting for Camera**

Covers the elements of “electronic drama,” essential technological and dramatic vocabulary and camera acting fundamentals. Create a filmed sequence for presentation. Recommended: DRMA 121 and Placement in ENGL 101.

---

**DRMA 120 (5) C,S**

**Introduction to Acting**

Builds a foundation of theory and application with the broad use of improvisational techniques and movement for the actor.

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**DRMA 121 (5) C,N,S**

**Acting**


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**DRMA 122 (5) C,N**

**Acting**

Continuation of DRMA 121 with emphasis on characterization and further scene study. May culminate in public performances. Prereq: DRMA 121.

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**DRMA 123 (5) C,N**

**Acting**

Continuation of DRMA 122 with further emphasis on scene study, critical analysis and scoring scripts. May culminate in public performances. Prereq: DRMA 122.

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**DRMA 131 (5) C,N**

**Intro to Tech Theater**

Intro to the technical aspects of theatre: lights, sets, props and sound. Learn how these areas are created and managed and how each impacts a production. Work on the technical aspects of mainstage productions.

---

**DRMA 170 (2) C,N**

**Theater Appreciation – Musicals**

This course will introduce students to theatre practices in order to make them more informed audience members. Through the lens of costume and makeup design, students will analyze the creation, collaboration, and communication of musical theater. Using Aristotle’s theater taxonomy, students will use their knowledge of costume and makeup design to assess theatrical communication in live musical theater performances. Prereq: Placement into ENGL 097/098 or higher.

---

**DRMA 171 (2) C,N**

**Theater Appreciation – Classics**

This course will introduce students to theatre practices in order to make them more informed audience members. Through the lens of dramatic structure students will analyze the creation, collaboration, and communication of classical theater. Using Aristotle’s theater taxonomy, students will use their knowledge of dramatic structure to assess theatrical communication in live classical theater performances. Prereq: Placement into ENGL 097/098 or higher.

---

**DRMA 172 (2) C,N**

**Theater Appreciation – Realism**

This course will introduce students to theatre practices in order to make them more informed audience members. Through the lenses of directing and acting, students will analyze the creation, collaboration, and communication of realistic theater. Using Aristotle’s theater taxonomy, students will use their knowledge of directing and acting to assess theatrical communication in live realistic theater performances. Prereq: Placement into ENGL 097/098 or higher.

---

**DRMA 173 (2) C,N**

**Theater Appreciation – Comedy**

This course will introduce students to theatre practices in order to make them more informed audience members. Through the lens of set and prop design, students will analyze the creation, collaboration, and communication of comic theater. Using Aristotle’s theater taxonomy, students will use their knowledge of set and prop design to assess theatrical communication in live comic theater performances. Prereq: Placement into ENGL 097/098 or higher.

---

**DRMA 174 (2) C,N**

**Theater Appreciation – Contemporary**

This course will introduce students to theatre practices in order to make them more informed audience members. Through the lens of light and video design, students will analyze the creation, collaboration, and communication of contemporary theater and performance art. Using Aristotle’s theater taxonomy, students will use their knowledge of light and video design to assess theatrical communication in contemporary theater and performance art. Prereq: Placement into ENGL 097/098 or higher.

---

**DRMA 180 (5) N**

**Music Theatre Production**

Covers the techniques of musical theater through participation in the production of a musical. Participation in any one of several areas: acting, dance, stage management, technical theater, and business management. Specific work is contracted between student and instructor. Dramatic roles determined by audition. Recommended: DRMA& 101 or 121.

---

**DRMA 182 (5) N**

**Intro to Musical Theatre**

Basic instruction in dramatic and vocal discipline of musical theater. Learn basic techniques of analysis, rehearsal and performance of musical theater through the study of scenes and in-class performance of designated scenes. Recommended: MUSC 119, 130 and/or DRMA& 101 or 121.

---

**DRMA 200 (1-5) C,N**

**Special Projects: Drama**

Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

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**DRMA 201 (1-5) C,N**

**Special Studies: Drama**

Special project course. Content, credit and expectations are achieved through discussion with students, including tailoring the projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRMA 202</td>
<td>Special Studies</td>
<td>(1-5) C,N</td>
<td>Special project course. Content, credit and expectations are achieved through discussion with students, including tailoring the projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.</td>
</tr>
<tr>
<td>DRMA 204</td>
<td>Intro Dance – Jazz I</td>
<td>(5) C</td>
<td>Intro to the world of concert Jazz dance. Includes basic concepts and principles of Jazz technique, muscle strengthening and flexibility exercises, building vocabulary of connective movements and skills for basic auditioning and memorizing choreography.</td>
</tr>
<tr>
<td>DRMA 205</td>
<td>Intro Dance – Jazz II</td>
<td>(5) C</td>
<td>Continuation of DRMA 204.</td>
</tr>
<tr>
<td>DRMA 206</td>
<td>Intro Dance – Jazz III</td>
<td>(5) C</td>
<td>Continuation of DRMA 205.</td>
</tr>
<tr>
<td>DRMA 211</td>
<td>Theater Management</td>
<td>(1-5) C,N</td>
<td>Special project course in theater management. Content, credit and expectations achieved by discussion with students, including tailoring projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.</td>
</tr>
<tr>
<td>DRMA 221</td>
<td>Advanced Acting</td>
<td>(5) C,N</td>
<td>Examination of acting styles and techniques with emphasis on scene study and analysis in contemporary and classical drama. Prereq: DRMA 123 or permission.</td>
</tr>
<tr>
<td>DRMA 222</td>
<td>Advanced Acting</td>
<td>(5) C,N</td>
<td>Continuation of DRMA 221. Prereq: DRMA 221 or permission.</td>
</tr>
<tr>
<td>DRMA 223</td>
<td>Advanced Acting</td>
<td>(5) C,N</td>
<td>Continuation of DRMA 222. Emphasis on longer acting projects and monologue repertoire. Prereq: DRMA 222 or permission. The following courses are variable-credit special projects in different aspects of theater. Content, credit and expectations are arrived at through discussion with students, a tailoring of the projects to student needs, instructor abilities, time frames and department activities. Prereq: Permission.</td>
</tr>
<tr>
<td>DRMA 224</td>
<td>Production &amp; Stage Management</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 231</td>
<td>Props &amp; Sound</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 241</td>
<td>Costuming</td>
<td>(1-5) N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 251</td>
<td>Stage Scenery</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 261</td>
<td>Stage Lighting</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 271</td>
<td>Acting</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 272</td>
<td>Acting</td>
<td>(1-5) N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 273</td>
<td>Acting</td>
<td>(1-5) N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 281</td>
<td>Directing</td>
<td>(1-5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 284</td>
<td>Playwriting</td>
<td>(5) C,N</td>
<td>Develop writing skills for one-act plays by exploring dramatic structure, character development and the author's stylistic voice. Learn the roles of director, dramaturge, actor and other theatrical artists in the writing process. Includes critical analysis of published plays, readings and critiques of student work. Prereq: ENGL &amp; 101 placement or permission.</td>
</tr>
<tr>
<td>DRMA 285</td>
<td>Playwriting 2</td>
<td>(5) N</td>
<td>Continue to hone playwriting skills in plot, characterization, author's stylistic voice, play structure and dialogue. Further understand the roles of director, dramaturge, actor and others. Prereq: DRMA 284 or permission.</td>
</tr>
</tbody>
</table>
DRMA 286 (5) N
Playwriting 3
Continue to hone the skills of plot, characterization, play structure, dialogue, the author's stylistic voice and theatrical collaboration. Covers the initial development process for a full-length play. May be repeated for credit. Prereq: DRMA 285 or permission.

DRMA 291 (1-5) C,N
Theatrical Internship
Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

DRMA 292 (5) C,N
Theatrical Internship
Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

DRMA 293 (5) C,N
Theatrical Internship
Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

DRMA 298 (1-5) C,N,S
Independent Projects in Theater
Individual projects in set design, lighting, costume, directing, house management and acting, as determined by advanced drama students and the drama faculty. Prereq: Advanced standing, permission.

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Early Childhood & Family Studies

CFS 101 (2) C
M.E.R.I.T Seminar
A series of workshops and classes designed to support The Managed Education and Registry Information Tool known as MERIT. Washington State's system for professionals in the field of early care and education and school-age professionals. Meets the initial 20-hour State Training & Registry System (STARS) training requirement. (This course was previously numbered CFS 299.)

CFS 110 (3) C
Developmentally Appropriate Activities
Intro to working with children and families in designing welcoming, safe, healthy, and supportive learning environments. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 120 (3) C
Physical Intellectual Development
Examines physical, cognitive, creative and linguistic developmental needs and stages of children from birth through pre-adolescence. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 130 (3) C
Social/Emotional Development
Covers the social, emotional, self-esteem and identity development of children from birth through pre-adolescence. Explores methods and strategies for creating a holistic approach to supporting development. Addresses guidance and behavior management. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 145 (3) C
Development During School Age Years
Examines physical, social, emotional, cognitive and moral development of school-age children including the family, peer group and community. Covers individual differences, typical issues and areas of concern. Includes roles of practitioners and history and philosophies of various program models. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 155 (3) C
Development During Adolescents Years
Examines all stages of adolescent development within social and cultural contexts including family, peer group and community. Explores issues youth face, youth culture and values, coming of age and rites of passage. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 180 (3) C
Guiding School Age Child
Covers the social, emotional, self-esteem and the identity development from childhood to adolescence. Explores methods and strategies for creating a holistic approach to supporting development. Addresses guidance and behavior management. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 208 (3) C
Planning & Space Design
Theoretical and practical examination of successful, diverse, inclusive environments. Includes design of the learning environment, materials, family involvement, programming and activities. Applicable to recreation, tutoring, health, education, social services, cultural arts and other out-of-school-time environments. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 215 (3) C
Math/Science with Young Children
Explores the many ways young children integrate math and science concepts into their daily lives and how to support their classroom learning. Emphasis on promoting cognitive development, basic concepts of math and science taught during the early years, ways for supporting those groups typically underrepresented in the STEM fields. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 223 (2) C
Physical Development in School Age
Explores strategies and methods for incorporating cooperative games, sports, dance, creative movement and leadership development into youth programs. Examines and expands movement repertoire, coaching and mentoring skills and culturally diverse approaches. Prereq: Eligible for ENGL& 101 and MATH 085.

CFS 225 (3) C
Assessment & Programming
Covers approaches for assessing of the individual child, the family, an agency, and community, and developing programming for utilizing strengths and meeting needs. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 228 (3) C
Child/Adolescent Sexuality

CFS 229 (2) C
Partnership with Diverse Family
Focuses on understanding family structures and developing conceptual frameworks and strategies that support all members of the school and service community. Particular emphasis is on issues and approaches for working with family in urban environments. Prereq: Eligible for ENGL& 101 and MATH 084.
CFS 252 (3) C
Violence Prevention
Examines the nature of violence in our community, including institutionalized violence, media violence, domestic violence, bullying, and gangs. Covers impact of prevention programs, strategies and methods for community-building and empowerment. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 263 (3) C
Children with Disabilities
Focuses on the social, emotional, physical, legal, historical and environmental issues which may affect children and youth with disabilities and their families. Explores strategies for supporting an inclusive learning environment for children, youth, and families. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 270 (1-3) C
Child & Family Health
Explores the impacts of typical family stresses including health care, wellness, safety, childcare, nutrition. Focuses on ways for building strong communities. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 280 (3) C
Methods for Cultural Relevance/Anti-bias Child & Family Studies
Specific strategies for working with all families and creating holistic, inclusive learning communities. Includes awareness and strategies for addressing bias. Prereq: HUM 105 and Eligible for ENGL & 101 and MATH 084.

CFS 284 (3) C
Literacy Development for Child/Family
Understanding and practical strategies for literacy development, home-to-school connection and supporting English language learners. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 290 (1-4) C
Budget and Finance
Covers budget design and monitoring; money, credit and financial statements; bookkeeping and financial planning; taxes and other legal requirements; computer applications; fees and other revenue sources; grant writing and fund raising; the budget/quality link. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 296 (1-4) C
Personnel & Supervision
Designed for program administrators; examines concepts and issues like staff development, evaluations and training, team building, communication, group dynamics and conflict management, developing personnel systems and procedures, performance contracts, living wages and benefits. Prereq: Eligible for ENGL & 101 and MATH 084.

CFS 299 (2) C
M.E.R.I.T.
A series of workshops and classes designed to support The Managed Education and Registry Information Tool known as MERIT, Washington State’s system for documenting professional achievements of early care and education and school-age professionals.

ECED& 105 (3) C,N
Intro to Early Childhood Education
Explore the foundations of early childhood education. Examine theories defining the field, issues and trends, best practices, and program models. Observe children, professionals, and programs in action. Students are required to work or volunteer directly with children.

ECED& 107 (5) C,N
Health Safety Nutrition
Develop knowledge and skills to ensure good health, nutrition, and safety of children in group care and education programs. Recognize the signs of abuse and neglect, responsibilities for mandated reporting, and available community resources. Work/volunteer directly with children.

ECED& 120 (3) C,N
Practicum: Nurturing Relationships
In an early learning setting, apply best practices for engaging in nurturing relationships with children. Focus on keeping children healthy and safe while promoting growth and development. Work/volunteer directly with children.

ECED& 122 (4) C
Practicum: Nurturing Relationships III
This is the third of three field practicum classes. Apply best practices for engaging in nurturing relationships with children in an early learning setting. Focus on keeping children healthy and safe while promoting growth and development. Prerequisite: ECED& 121.

ECED& 132 (3) C,N
Infants and Toddlers
Examine the unique developmental needs of infants & toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care. Work/volunteer directly with children.

ECED& 134 (3) C,N
Family Child Care
Learn the basics of home/family child care program management. Includes licensing requirements, business management, relationship building, health, safety, & nutrition. Guiding behavior, and promoting growth and development. Work/volunteer directly with children.

ECED& 139 (3) C,N
Administration
Develop administrative skills required to create, open, operate, manage, and assess early childhood education and care programs. Explore techniques and resources available for Washington State licensing and National Association for the Education of Young Children (NAEYC) standard compliance. Work/volunteer directly with children.

ECED& 160 (5) C,N
Curriculum Development
Investigate the integration of learning theory, program planning, and tools for curriculum development to promote growth in language, fine/gross motor, social-emotional, cognitive and creative skills in young children (birth-age 8).

ECED& 170 (3) C,N
Environments – Young Child
Design, evaluate, and improve indoor and outdoor environments to ensure quality learning, nurturing experiences, and optimize the development of young children.

ECED& 180 (3) C,N
Language/Literacy Development
Develop teaching strategies for language acquisition and literacy skill development at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading.
Early Childhood Education
See also Education, page 286.

CCE 101 (5) N
Human Development
Intro to the field of child development. Using an ages and stages approach, examines physical, cognitive, language, social and emotional development of children from birth through young school age. Study major theorists and the use of research. Learn basic observation skills and apply the information to child development.

CCE 102 (3) N
Issues & Trends in Child
Examines the profession of early childhood education and the historical and political perspectives for understanding ECE in a changing society. Addresses current educational problems and trends, underlying values assumptions and guides for professional action.

CCE 110 (6) N
Intro Early Childhood
This course is designed to introduce early childhood students to the variety of work available within the early childhood profession. The course will also explore the student’s and professional's role in advocating for themselves, as well as children and their families.

CCE 111 (3) N
Intro to Family Day Care
Considerations for starting a family day care center, including arranging a home and yard for safety and learning, storage, equipment, day-to-day activities and program planning, guiding children's behavior, communicating with parents and licensing procedures and requirements.

CCE 118 (3) N
Child Guidance/Group Management
Observation and interaction with young children from a variety of backgrounds in laboratory settings.

CCE 120 (6) N
Laboratory Participation
Systematic observation of teaching of young children, participation as an assistant teacher in the campus laboratory preschool and participation in weekly in-depth discussions.

CCE 121 (6) N
Field Participation
The second in the sequence of practice teaching experiences, this time in selected, quality early childhood education and special education programs in the community. Seminars focus on good curriculum, requisites for change, risk taking, and the culture of a school. Prereq: CCE 120. Recommended: CCE 125 and CCE 106.

CCE 122 (6) N
Infant/Toddler Lab
Observe skills and interests of very young children; develop materials and activities based on each child's skills and interests; provide guidance. Taken concurrently with CCE 135. Prereq: CCE 101, 120.

CCE 123 (5) N
Child Physical/Cognitive Competence
This course has been designed as an integrated approach to a variety of topics pertinent to the early childhood professional currently working in the field. The course will provide the students with the opportunity to gain knowledge of child development and skills in observing, recording and planning a program for young children. The focus areas for the development of these skills and knowledge Winter Quarter will be advancing children's physical, cognitive, communication and creative competence. An ongoing focus on professionalism in the early childhood field and writing and literacy skills will also be included as a part of the course work.

CCE 125 (5) N
Program Planning
Overview of the components of creating a child-responsive learning environment for 3- to 5-year old children that maximizes each child’s social, motor, cognitive and expressive development through play. Evaluate the physical environment of two ECE programs using accreditation criteria from the National Academy of Early Childhood Programs.

CCE 126 (3) N
Curriculum Development/Implementation
Fundamental teaching procedures for working with young children in a variety of settings, i.e., in-home care, family day care, mini-center, “Head Start,” day care, etc. Development of learning materials and teaching techniques related to their setting.

CCE 130 (3) N
Family & Community Relationships
Emphasis on importance of family to children and development of strategies to work effectively with families.

CCE 133 (5) N
Support Children’s Soc/Emotion
Integrated Course which includes CCE 100, CCE 110, CCE 126. Previously Offered Independently. Prereq: None

CCE 135 (5) N
Foundations of Early Learning
Covers special needs of infants, toddlers and 2-year-olds in care-giving settings. Includes brain research, developmental tasks, environmental components for optimal development, caregiver/teacher roles, working with parents and curriculum planning.

CCE 136 (2) N
Signing with Young Child
Intro to American Sign Language (ASL) not only as a second language, but as a valuable tool for enhancing communication with children. Sign language provides a tactile method for children to learn, play and express themselves.

CCE 145 (1-4) N
Music & Creative Expression
Stimulates both beginning and experienced early childhood teachers to provide a wide variety of musical activities for children’s active participation in movement and music making. Develop ease in supporting and leading musical activities while learning a method for selecting and planning a fun, creative and skill-developing music education program for preschool children and older toddlers.
CCE 159 (4) N
Behavior Management
Explores two approaches to discipline—behaviorism and child-centered guidance. For behaviorism, learn to manage the difficult child, administer effective rewards, construct cognitive behavior modification interventions and build desired new behavior through chaining and shaping. For guidance, learn to construct a social learning environment that facilitates social problem-solving and personal responsibility.

CCE 160 (1-8) N
Connecting to Children
The four modules listed on page 124 provide an opportunity to demonstrate performances essential to the effective influencing of young children.

CCE 165 (3) N
Understanding Literacy
Covers philosophies and definitions of literacy. Explores radical, non-traditional thinking of the concept through readings, guest speakers and research.

CCE 166 (3) N
Cultivating Conversation
Learn to facilitate the verbal expression of young children by practicing the techniques of responsive listening and informative talk and applying those skills to everyday conversations with children.

CCE 170 (18) N
Creating the Conditions
The modules listed on page 124 provide an opportunity to demonstrate performances necessary to create learning environments for children ages 2 to 5. They challenge teachers to investigate and engineer the broad range of quality activities that meet the needs and circumstances of their own school without conflicting with most early childhood models or theoretical approaches.

CCE 175 (3) N
Mathematics and Design
Presents methods for developing a sense of competence and enjoyment in exploring cognitive-mathematical activities in children ages 3 to 5. Covers activities for printing, designing, counting, number sequencing, patterning, graphing, problem-solving and exploring the world of logical-mathematical thinking. Helps children develop effective habits of mind (wondering, figuring it out, predicting and challenge seeking) and the ability to work cooperatively for extended periods.

CCE 180 (1-5) N
Professional Development
Covers topics on the care and development of children for early childhood care personnel, educators and parents.

CCE 185 (3) N
Physical Education in Early Childhood
Explores the outdoor physical environment for children in preschools and childcare settings. Analyze the fundamental motor patterns, the need for risk and personal confidence, the role of natural environments in the development of children and create the ideal physical development program for young children.

CCE 190 (5) N
Parenting in the Foster Family
The concerns and interests of foster parents will be the focus of this course. Defining the role of foster parents, relationships with children, caseworker and natural parents, relationships with community agencies, child development, and guidance techniques are among the topics included.

CCE 195 (3) N
Art for Young Children
Provides the experience of art to children 3 to 8 years old. Explores self-expression in painting, drawing, clay and collage. Conduct a series of art classes for children to practice relating in ways that facilitate the children’s self-expression in these fundamental media.

CCE 199 (5) N
Coop Ed/Work Experience: Childhood
Cooperative Education is a program which allows students to gain work experience directly related to their majors. This program integrates classroom study with employment. It is based on the principle that one learns not only through academic achievement but also through practical experience. It provides participating students with supervised work experience in an individualized learning environment.

CCE 200 (3) N
Children and Nature
Discover the joys of connecting young children with nature. Nature influences social skills, enhances learning, fuels imagination, instills a reverence for the environment and helps children with sensory integration deficit.

CCE 201 (3) N
Special Topics: Teacher Training Techniques
This is a professional development class for practicing trainers and supervisors of early childhood education staff on techniques for in-service training that promotes developmentally appropriate practice. Drawing on discussion of direct experience, as well as theories of adult learning and staff development, students will design, implement, and evaluate training strategies and tools. Observation and feedback techniques will be practiced and critiqued, including the use of video.

CCE 204 (2) N
Autism and Related Disorders
Covers aspects of autism spectrum disorder, including its definition, causes, characteristics, behaviors, diagnosis, current research and treatments, and hands-on strategies for working effectively with children on the autism spectrum.

CCE 223 (3) N
Health, Safety, and Nutrition
Provides information on a child’s health status, a safe but challenging learning environment, proper nutrition, and their effects on care, nurture, and optimal physical and cognitive development.

CCE 232 (4) N
Parent Involvement in Early Childhood Education
Examines the ways teachers can open themselves and the school to include parents as a part of the learning community. Includes expectations parents and teachers have for each other, the tasks parents face in growing up with their children, assertive and supportive help, communicating the aims of school in a democracy and dealing with difficult issues that affect both school and home, such as abuse, death and divorce.

CCE 234 (1-4) N
Staff Relationships
Covers interpersonal communication skills needed to function effectively as a contributing, collaborative, helping staff member in the workplace, including early childhood education settings.

CCE 240 (3) N
Mc Dialogues in Early Childhood Education
Examines the concept of multiculturalism and how it relates to the ECE classroom. Through dialogues, readings and projects, students assess their beliefs, teaching environment and style in order to identify changes and promote respect for differences that accompany children and families.
CCE 242 (3) N
Concept & Language
Develop Children’s learning processes viewed from the Piagetian framework. Provides rationale for curriculum development in areas of science, mathematics, language and literature. Prereq: CCE 101, CCE 108 and CCE 125.

CCE 245 (5) N
Music for Young Children
How both experienced and beginning early childhood teachers can provide a wide variety of musical activities for children’s active participation in music making and movement. Students help each other develop an ease in supporting and leading musical activities as they learn a method for selecting and planning a fun, creative, and skill developing music education program for preschoolers and older toddlers.

CCE 250 (5) N
Teaching Young Children
Practice and refine teaching skills in a field setting such as a child care program, in-home care, special education or elementary classroom. Prereq: CCE 108, CCE 109.

CCE 253 (7) N
Family Child Care Practicum
Participation as a member of a teaching team in weekly laboratory preschool, under instructor supervision. Two-quarter course includes seminar on effective teaching practices and their application to family day care settings.

CCE 261 (1-6) N
Readings in Early Childhood Education
Individualized program of study relating to specific problem or content area under faculty supervision. Credits based on work accomplished. Prereq: Permission.

CCE 285 (5) N
The Project Approach
For teachers who have been teaching several years. Explore how learning objectives assessment and emergent curriculum combine to foster a creative, personally expressive, co-active celebratory curriculum for a democratic learning community.

CCE 290 (12) N
Lab Practice Teaching
The intensive, capstone experience of collaboratively teaching and managing a half-day preschool program for 3- to 5-year-old children. Under faculty supervision and videotape analysis teachers rotate roles to creatively meet the educational needs of the on-campus laboratory preschool children. Prereq: CCE 120 and CCE 121. Recommended: CCE 125, CCE 106, PSY 260, CCE 245, CCE 265, and CCE 234.

CCE 291 (8) N
Field Practice
Participation in community child care setting or public school classroom (15 hrs/week). Includes planning, supervision and evaluation of activities. Weekly seminars focus on communication within the teaching team, resume writing, job interview skills, and taking initiative in the classroom. Prereq: instructor permission.

CCE 292 (1-12) N
Classroom Research
Use the work setting as the environment to meet the needs of children through social, motor, cognitive, language and expressive skills. Under faculty supervision and peer interaction, examine quality education. Students will analyze their current knowledge and actions in their classroom.

CCE 294 (4) N
Early Childhood Management: Fund Management
Focuses on the 4 basic management functions, leadership styles, theories of management, problem-solving techniques, program planning, policies and procedures, NAEYC Accreditation, marketing, time management, management information systems, working with boards of directors, parent involvement and communication, advocacy and professional development.

CCE 295 (6) N
Early Childhood Management: Coop Ed
Coop students will be supervised at their job site by community experts. Specific assignments will be coordinated with CCE 294 to enhance management skills. Prereq: Concurrent enrollment in CCE 294.

CCE 296 (4) N
Personnel & Supervision
Staff development, evaluations, staff training, coaching and developing cohesive teams, staff communication, conflict management, group dynamics, staff recruitment, hiring and retention, developing personnel systems and procedures, performance contracts, motivating staff, wages and benefits.

CCE 297 (6) N
Early Childhood: Personnel Supervision Coop
Coop students will be supervised at their job site by community experts. Specific assignments will be coordinated with CCE 296 to enhance personnel and supervision skills. Prereq: Concurrent enrollment in CCE 296.

CCE 298 (4) N
Early Childhood Budget
Fin Budget design and monitoring, money and credit, financial statements bookkeeping, financial planning, taxes and other legal requirements, computers for financial management, parent fees and other sources of revenue, grantwriting/fundraising, and the budget/quality link.

ECE 305 (4) N
ECE Approaches & History
This course examines changes in early care and education over time; including social, political and societal trends. Current local, state, national and global trends will be compared and critiqued. Using a historical approach, students will analyze key influences in the field and reflect upon the diversity embedded in this field. Students will observe and differentiate between models of early care and education, and develop a personal teaching philosophy.

ECE 310 (5) N
Cognition/General Knowledge
This course focuses on using learning theory and key concepts of cognition development in young children to design math/science curriculum. Students will describe how learning occurs for young children and critique learning theory. They will learn to apply learning theory to their instruction and design developmentally appropriate strategies to teach math and science content based on the understanding of cognition.

ECE 315 (5) N
Language, Literacy and Communication
Examines methods of communication for children aged 0-8 years. Covers the development of communication skills and foundations of language and literacy. Using developmentally appropriate practice, students design and implement strategies to promote development of language, literacy and communication skills in an early learning setting. Includes analysis of approaches to instruction, development of curriculum and assessment of communication abilities.

ECE 320 (3) N
Creative Expression
Students will promote creativity in an early learning setting using music, art, movement, and imaginative play to support development across developmental domains (physical, cognitive, social-emotional). Students will examine different approaches to creativity, design curriculum incorporating creativity and demonstrate developmentally appropriate practices supporting creativity in the classroom.
Course Descriptions

ECE 350 (5) N  Practicum: Interactions
Covers developmentally appropriate instructional interactions with children in early learning settings (ages birth-8 years). Introduces best practices in teacher-child interactions. Observations in a minimum of two programs serving different age groups are required.

ECE 355 (3) N  Anti-Bias Education
Explore equity issues in early childhood education and reflect on biases present in ourselves, communities of practice and the systems in which our children live. Includes study of embedded bias and its impact on identity development and strategies to counter structural bias.

ECE 430 (5) N  Linguistically Diverse Learners
Focuses on the language, literacy and communication skills of children who are dual language learners, ages birth through 8. Assessment and instruction strategies applied to early learning settings. Emphasis is placed on identifying, strengthening and building upon the family and community connections of young children who are dual language learners.

Economics

ECON 100 (5) C,N,S  Survey of Economics
Examines basic principles of economics, determination of national prosperity, income distribution, the role of government, price determination, allocation of resources, economic systems and market behavior.

ECON 101 (5) N  Intro to Economics in the World of Work
Intro to economics. Covers how the process of work, job creation and compensation are affected by changing conditions, markets and institutional constraints.

ECON 102 (5) N,S  Public Economics & Government
Examines politics, decision-making and current events of American government through basic principles of economics. Emphasizes the role of government related to economic efficiency within the context of diverse political interests.

ECON& 201 (5) C,N,S  Micro Economics
Examines monetary and fiscal policies and their effects on the interest rate and inflation. Covers investment, economic activity and the employment of resources. Fulfills Global Studies and/or QSR requirement for AA degree. Prereq: MATH 098 or equivalent.

ECON& 202 (5) C,N,S  Macro Economics
Intro to the aggregate measures in the economy: GDP, unemployment and inflation. Examines monetary and fiscal policies and their effects on the interest rate and inflation. Covers investment, economic activity and the employment of resources. Fulfills Global Studies and/or QSR requirement for AA degree. Prereq: MATH 098 or equivalent.

Education

EDUC& 115 (5) C,N  Child Development
To provide a foundation of information regarding the physical, social, communication, and cognitive development of children via multimedia presentations that reflect cross cultural and global perspectives. Observations of children, research, vocabulary growth and application, and discussions serve as active learning experiences.

EDUC& 130 (3) C,N  Guiding Behavior
Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. Work/volunteer directly with children.

EDUC& 150 (3) C,N  Child/Family/Community
The course will develop students understanding about the ways in which child development is influenced by familial and community contexts. Students learn effective communication tools to explore cultures and demographics of families in society and identify community resources and strategies for involving families in the education of their child. This course requires the student to directly work/volunteer with children.

EDUC 197, 198, 199 (1-5) C,N  Education Work Experience
Work, intern or volunteer in an educational setting. Prereq: Permission.

EDUC 200 (1-5) C,N,S  Peer Tutoring
Tutor training and/or experience. Focus on tutoring techniques and problems in any setting. For more information contact Division offices in Humanities, Math & Science, Allied Health, Business, or Education on your campus.

EDUC& 202 (5) C  Intro to Education
Intro to the Elementary Education profession. Overview of the education profession and U.S. educational system, including historical development, social foundations, and diversity of educational institutions. Focus on the K-8 system. Includes current theories, trends and issues in education and the community, roles and responsibilities of teachers, learners, and other school personnel. Prereq: ENGL 080 or permission.

EDUC& 203 (3) C,N  Exceptional Child
Emphasizes diversity and a value-based approach to human exceptionality and disability using a lifespan view. An historical perspective covers current trends and practices in early intervention, special and general education and life-long supports for individuals with disabilities and their families.
Finding Courses
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

Prefix to Name
HIN .............. Watch Technology
Name to Prefix
Watch Technology ............... HIN

Common Course Numbering explanation is on page 224.

EDUC 205 (5) C
Intro to Education Field
Intro to K-12 education. Explores the complexity and dynamics of today’s K-12 education environment. Includes suggestions for all-inclusive teaching methods geared toward the increasingly diverse multi-ethnic, multicultural and multi-lingual student population. Covers the new federal education bill, as well as the state of Washington student learning goals including the Essential Academic Learning Requirements (EALRS) for student learning.

EDUC 210 (5) C
Intro to Bilingual Education
Fundamental principles in the education of second language learners. Examines their unique academic needs and defines effective bilingual education strategies to address these needs, including the effects of culture on language development and content-area instruction.

EDUC 211 (5) C
Intro to Bilingual Education
Focuses on historical, legislative and socio-political background, including arguments for and against bilingual education. Includes a survey of research in bilingual education program design and an overview of the organization and structure of bilingual programs.

EDUC 220 (3) C
Assessing Bilingual Students
Study of issues teachers must consider when assessing bilingual students, including eligibility testing, validity and reliability of standardized tests, alternative assessment, pre-assessment procedures and placement of bilingual students in special education.

EDUC 250 (3) C
Paraprofessionals & Teachers: Partners
Comprehensive intro to knowledge and skills needed by paraprofessionals assigned to assist students in the instructional process and the teachers with whom they work. Includes roles and responsibilities of the paraprofessional, team-building and behavior management.

EDUC 271 (5) C
ESL Reading/Language Art
Learn methods of assessment, placement and instruction of ESL students in reading and language arts. Focuses on instructional techniques for the literacy level and age of the ESL student and on integration of reading and language arts.

EDUC 272 (5) C
Integrating ESL in Class
Specifically for the teacher with bilingual and monolingual students in the same classroom. Overview of current theories of language acquisition with a focus on practical instructional strategies. Covers a wide repertoire of strategies drawn from bilingual, ESL and mainstream methodologies.

EDUC 291 (5-10) C
Using World as Classroom
Provides a unique opportunity to earn credit for various travel/study experiences in an international setting.

EDUC 298 (9) C
ESL Methods for Diverse
Examines the languages, cultures and diverse learning styles of limited-English-proficient (LEP) learners and fosters teacher proficiency in English as a Second Language (ESL) methods which respond appropriately to learners’ diverse needs and facilitate their English language development. Emphasis on communicative language teaching.

EEL 201 (5) N,S
Energy Generation Conversion & Sustainability
First of three evening classes in Industrial Power and Control Technology. Covers the fundamentals of electricity and magnetism, single phase and three phase circuits, transformers and electrical machines, AC and DC rotating equipment. Prereqs: MATH 109 and EET 162.

EEL 202 (5) N,S
Industrial Motor Control
Second of three evening classes in Industrial Power and Control Technology. Study sequential control involving electromagnetic control devices and circuits for starting, accelerating, stopping, and reversing AC and DC motors. Includes programmable logic controllers. Program basic control circuits on Allen-Bradley’s MicroLogix 1000 and SLC 500 line of PLCs. Prereq: EEL 201.

EEL 203 (5) N,S
Industrial Motor Drives
Third of three evening classes in Industrial Power and Control Technology. Study electric drives, including fundamentals of power electronics and electronic control of direct current and alternating current motors. Covers advanced PLC (Programmable Logic Controller) programming and practical applications of using a PLC to control an electric drive in the lab. Prereq: EEL 202.

Electronics Technology

EET 207 (5) C
Using World as Classroom
Provides a unique opportunity to earn credit for various travel/study experiences in an international setting.

EET 287 (5) C
ESL Methods for Diverse
Examines the languages, cultures and diverse learning styles of limited-English-proficient (LEP) learners and fosters teacher proficiency in English as a Second Language (ESL) methods which respond appropriately to learners’ diverse needs and facilitate their English language development. Emphasis on communicative language teaching.

Electrical Engineering

EEL 201 (5) N,S
Energy Generation Conversion & Sustainability
First of three evening classes in Industrial Power and Control Technology. Covers the fundamentals of electricity and magnetism, single phase and three phase circuits, transformers and electrical machines, AC and DC rotating equipment. Prereqs: MATH 109 and EET 162.
EET 102 (3) N
Intro to Measurement
Introduces technical students to the fundamentals of measuring systems that will be used throughout the technical program. Performance goals will equip the student with the ability to obtain direct and indirect measurements, correctly choose and utilize various measurement tools, identify types and sources of uncertainty or error in measurements and use computer technology to prepare reports and presentations to communicate results of efforts. Introduction to advanced utilizations of measurement equipment.

EET 103 (3) N
Survey of Technology
Study specific disciplines within electronic and engineering technologies relative to occupational opportunities. Knowledge of the standards, practices, and skills necessary for a complete understanding of these fields.

EET 105 (2) N
Intro to Measurement
Survey of the field of electronics and technology occupations. Learn the standards, practices and skills necessary for employment in electronic-related occupations.

EET 106 (1) N
Intro to Soldering
Develop competent soldering skills in removing and replacing components without causing damage to either the component or the printed circuit boards. Learn techniques to select the proper solder, soldering aids, tools and other associated test equipment.

EET 107 (5) N
Aviation Electronics
Intro and overview of avionics instrumentation and wiring.

EET 108 (5) N
Intro to Fiber Optics
Intro to fiber optics theory and maintenance as applied to information technology, aerospace, broadband and generic use. Use industry standard diagnostic test equipment, safety, routing, installation, cleaning, measurement, and inspection processes in lab. Prepare for Fiber Optic Association Certification (FOA).

EET 109 (5) N
Mathematical Applications for Circuit Analysis
Overview of basic mathematical applications for electronic circuit analysis. Includes fundamental concepts of operations with numbers, the metric system, fundamental algebraic concepts, graphing, exponential and logarithmic functions, right angle triangles, basic trig functions, vectors and complex numbers. Prereq: MAT 081 or equivalent.

EET 110 (8) N
AC Principles of Electronics
Review of DC principles; inclusion of AC concepts of frequency, resonance, inductance, etc., with emphasis on magnetic circuits and energy. Study of capacitors, inductors, transformers and other devices. Lab included. Prereq: EET 107, MAT 106 or concurrent enrollment or acceptable score on electronics advanced placement test, or equivalent.

EET 111 (8) N
Solid State Electronics
Analysis of semiconductor devices and their application in electronic circuits. Construction and measurement of circuits verify mathematical analysis. Includes study of bipolar, FET, MOS and other popular semiconductor families. An introduction to operational amplifiers and other integrated circuits. Prereq: EET 110, or acceptable score on electronics advanced placement test, or equivalent.

EET 112 (5) N
Fundamentals of Fluid Power & Alternative Energy
Introduction to fluid power systems used in industry and to photovoltaic systems. Covers fundamentals of hydraulic and pneumatic systems including fluid power components and schematics. Includes electrical/electronic control of fluid power systems and demonstrates several electro-hydraulic servo-systems. Prereq: EET 109 or MATH & 141 or higher.

EET 114 (5) N
Applied Physics
Physics for students in a vocational technical field. Covers the basic laws of physics as applied to mechanics, matter and heat, wave motion and sound, electricity and magnetism, light and modern physics. Includes physical concepts applied to industrial-technical fields. Prereq: EET 109.

EET 115 (5) N
Troubleshooting Fundamentals
Intermediate electronic support course covering appropriate selection and use of small hand tools, basic electronic test equipment, soldering and assembly techniques. Also covers the basic steps of troubleshooting and application of those steps on electronic circuits. Prereq: EET 111 or permission.

EET 117 (4) N
Electronics Devices
Analysis of characteristics of semiconductor devices and their application in common electronic devices. Covers the theory and practical application of diodes, bipolar junction transistors (BJTs), junction field effect transistors (JFETs), metal-oxide-semiconductor FETs (MOSFETs), and thyristors. Prereq: EET 107 or equivalent.

EET 118 (4) N
Electronics Devices Lab
Covers construction and measurement of electronic devices and circuit parameters to verify models and math analysis developed in EET 117. Begins with construction of simple power supplies and moves on to more complex amplifier circuits. Covers diodes, bipolar junction transistors (BJTs), junction field effect transistors (JFETs), metal-oxide-semiconductor FETs (MOSFETs), and thyristors. Coreq: EET 117.

EET 119 (5) N
Intro to Troubleshooting
Intermediate electronic support course providing students with information about the appropriate selection and proper and safe use of small hand tools and basic electronic test equipment. Also covers the basic steps of troubleshooting and application of those steps on electronic circuits. This course is designed to make the construction and troubleshooting of electronic circuits less frustrating and more personally rewarding.

EET 127 (4) N
Intro to Digital & Analog Circuits
Third course in an in-depth study of electronics. Covers the fundamentals of analog and digital circuits. Analog topics include differential and operational amplifiers, and comparators, linear and nonlinear op amp applications. Digital topics include digital signals, number systems, Boolean algebra, logic gates, combinational logic, flip-flops and sequential logic. Prereq: EET 117. Coreq: EET 128.
EET 128 (4) N
Intro to Digital & Analog Circuits, Lab
With EET 127. Includes construction, debugging and adjustments of analog and digital circuits. Evaluate and compare circuit performance with predictions based on circuit models and mathematical analysis. Analog circuits include standard op amp designs plus linear and nonlinear application examples. Digital topics include logic gate and flip-flop operation, the construction of combinational and sequential logic circuits, interfacing between logic families, and a project. Prereq: MAT 106 and EET 117. Coreq: EET 127.

EET 130 (9) N
Computer Basics-A+ Cert
Intro to basic computer knowledge and skills necessary for a network specialist. Emphasis on computer component integration and problem solving techniques. Intro to troubleshooting from a hardware and software approach and presents stand-alone and peer-to-peer operating systems (DOS, Win 95/98). Taught to A-Plus certification standards. Student should have systems troubleshooting experience, including interfacing to peripherals.

EET 131 (5) N
IT Essentials I A+ Cert
First of two courses that address the knowledge required for the current CompTia A+ Certification test. Emphasizes fundamentals of installing, maintaining and configuring computer hardware, operating systems, networks and security. Lab fee.

EET 132 (5) N
IT Essentials A+ Certification Advanced
Second of two courses that address the knowledge required for the current CompTia A+ Certification test, including installing, maintaining and configuring computer hardware, operating systems, networks and security. Lab fee.

EET 135 (5) N
Intro to Broadband
Introduction to broadband cable technologies, theory and skills required for technicians working in the broadband industry, including HDTV, high speed internet and telephony. Training is adapted from the Society of Cable and Telecommunications Engineers (SCTE) with input from local cable providers. Prereqs: EET 131, EET 160 or EET 161 or instructor permission.

EET 136 (5) N
Introduction to Robots
Intro to foundational concepts in building and programming robots. Students program microcontrollers and configure electronic components to enable robotic activity. Includes programming of LED lighting, digital pushbuttons, motion control, digital displays, light measurement and frequency and sound.

EET 137 (5) N
Intro to Robotics
Intro to foundational concepts in building and programming robots. Build, program and configure a robot using various electronic devices to enable a wide variety of robotic activity.

EET 138 (5) N
Robotic App
Builds on EET 137 with navigation by ultra sound, visible light and infrared. Includes wireless control, accelerometer, tilt sensing and Joystick configuration. Prereq: EET 137 or permission.

EET 160 (5) N
Intro to Electricity & Electronics
Survey of electronics and electricity addressing AC/DC, resistors, capacitors, inductors, semiconductors, amplifiers, operational amplifiers, digital systems, and microprocessors. Provides a quick, one-course overview of this material without the details and rigor of math found in standard course offerings.

EET 161 (5) N
DC Principles of Electronics
Covers physics as applied to electricity and magnetism, electrical and electronic terms and units. Intro to electronic measuring devices, electrical circuits, magnets, magnetism, meter movements and DC circuit analysis. Prereq: High school algebra.

EET 162 (5) N
A. C. Electronics
Second course in a series designed for an in-depth study of electronics. Covers the sinusoidal waveform, its generation and measurement, and basic AC topics including frequency, inductance, capacitance, reactance, resonance, filters, transistors. Computer models, as well as labs with the oscilloscope, are used throughout. Prerequisite: EET 161 or equivalent; Corequisite: EET 109 or MATH & 142 or instructor permission.

EET 163 (5) N
Solid State Electronics
Analysis of characteristics of analog semiconductor devices and their applications in common electronic circuits. Course begins with construction of simple power supplies and moves to more complex amplifier circuits. Construction and measurement of devices and circuit parameters verify the analysis of circuits explored. Prereqs: EET 162 or instructor permission.

EET 164 (5) N
Solid State Electronics II
Covers regulated power supplies, power amplifiers, basic AM transmission and receiving, parameters of various solid-state devices as applied to linear circuits. Prereq: EET 163 or equivalent, or acceptable score on electronics advanced placement test.

EET 165 (5) N
Analog Circuits/Devices
Continued analysis of characteristics of analog semiconductor devices and their applications in common electronic circuits. Explanation and analysis of field-effect transistors (FETs), thyristors, and operational amplifiers, their nomenclature and identification, characteristics, parameters and basic circuit applications. Explanation and analysis of special-purpose diodes (particularly the zener) and their applications.

EET 166 (5) N
Analog Circuits/Device II
Further study of common analog devices, circuits and subsystems in the fields of communication and industrial controls. Prereq: EET 165 or equivalent.

EET 167 (5) N
Basic Electrical Systems
Covers the fundamental applications of digital and analog circuitry to industrial measurement and control problems. Includes data acquisition, thyristor characteristics and application, and control fundamentals. Prereq: EET 166 and EET 171.

EET 168 (5) N
Electrical Systems & Industrial Applications
Continues the applications of digital and analog circuitry to industrial measurement and control problems. Covers transducers, final control elements and interfacing. Emphasis on automated test equipment and programmable controllers. Prereq: EET 167.
Course Descriptions

EET 170 (5) N
Digital Electronics & Programmable Logic Controllers I
Fundamentals of digital electronics and interface circuits. Course covers number systems, logic gates, Boolean algebra and logic simplification (including DeMorgan’s theorems and Karnaugh maps), encoders and decoders, multiplexers and demultiplexers, and an introduction to flip-flops, and an introduction to programmable logic controllers (PLCs). Coreq: EET 161 or instructor permission.

EET 171 (5) N
Digital/Programmable Logic Controllers II
Fundamentals of digital electronics and interface circuits, continued. Course covers flip-flops, shift registers, counters and state machines, multitimers (including the 555 timer IC), programmable logic, data storage and memory, analog-to-digital and digital-to-analog conversion and interfacing applications, introduction to microprocessors and programmable logic controllers (PLCs). Prereq: EET 170 or instructor permission.

EET 197 (10) N
Special Topics: Electronics
Study of selected topics considered appropriate by the instructor and/or faculty. Course content, format and projects vary. Prereq: Permission.

EET 198 (2) N
Electronics Workshop
Open lab with instructor. Analog and digital course work enhancement. May include proper use of bench equipment, troubleshooting techniques, study skills and group problem-solving.

EET 206 (5) N
Marine Electronics
Fundamentals of analog and digital electronics with applications to the marine industry and shipboard systems. Course support curriculum at the Seattle Maritime Academy. Prereq: MGO 127 or permission.

EET 207 (4) N
Advanced Principles of Electronics
Reinforcement of DC principles and inclusion of AC concepts of frequency, resonance, inductance, capacitance, and reactance. Emphasis on magnetic circuits and energy. Covers circuit construction and measurement using power supplies, multimeters, oscilloscopes and other test instruments. Prereq: EET 107 or EET 161; and EET 109 or MAT 102 or higher. Coreq: EET 208.

EET 208 (4) N
Advanced Principles of Electronics Lab
Lab course to accompany EET 207. Covers circuit construction and measurement using power supplies, multimeters, oscilloscopes and other test equipment. Coreq: EET 207.

EET 210 (8) N
Digital Electronics
An introduction to logic fundamentals, logic IC families and their characteristics, logic controls, and associated circuitry. A sampling of topics include logic numbering systems, Boolean algebra, detectors, combinational logic, minimization techniques, ADA converters, memories and registers. Prereq: MAT 109, EET 111, CSC 109 or permission.

EET 211 (8) N
Analog Circuits & Device
Continuation of analog devices, circuits and subsystems. Emphasis on active and passive filters and associated electrical considerations. Timers, transducers, AD/DA converters, communication circuits, multiplexers, modulators and techniques. Prereq: EET 115, EET 210, PHY 118 or equivalent, or acceptable score on electronics advanced placement test.

EET 212 (8) N
Industrial Applications
This course covers the application of digital and analog circuitry to industrial measurement and control problems. Transducers, final control elements and interfacing are discussed. Instruction on automatic test equipment. Prereq: EET 211 or equivalent.

EET 215 (5) N
Analog Troubleshooting
Allows students to apply theoretical premises to actual systems and circuits that are faulty, repair the fault and test the system. Includes an in-depth study of the proper test equipment to use in each step of troubleshooting. The student will progress in troubleshooting skills using audio tape, oscilloscope, black and white television sets. Prereq: EET 115, EET 210, MAT 109, AND PHY 118 or permission.

EET 216 (4) N
Digital & System Troubleshooting
Focus is on complex digital systems: microcomputers and peripherals (i.e. floppy disk drive, hard drive) and switching power supplies. A maintenance and repair strategy will be followed.

EET 217 (4) N
Digital & Analog Circuits II
Continues the study of analog and digital circuits. Analog studies include active filters, oscillators and voltage regulators. Digital studies include number arithmetic operations and circuits, counters, and shift registers. Emphasis on D/A and A/D converters and data acquisition systems. Coreq: EET 218. Prereq: EET 127, and EET 207.

EET 218 (4) N
Digital & Analog Circuits, Lab
Covers construction, debugging and adjustment of analog and digital circuits, and data conversion circuits. Analog research includes active filters, oscillators, and voltage regulators. Digital research includes binary and BCD adders, counters, and shift registers. Coreq: EET 217.

EET 219 (3) N
Metrology
This course provides an introduction to the foundational knowledge and skills required for the Certified Calibration Technician Certification administered by the American Society for Quality (ASQ). The ASQ has additional requirements for work experience that candidates must fulfill before they are eligible to take the exam; check with the ASQ for more information. Prereqs: EET 114 and EET 162 or instructor permission.

EET 220 (5) N
Circuit Analysis
Design and analysis of passive networks, small signal amplifiers, and integrated circuit operational amplifiers. Emphasis on mathematical and computer modeling techniques, circuit prototyping and testing methods. Prereq: EET 110, EET 111, EET 211 or equivalent, or instructor permission.

EET 240 (12.5) N
Communication Electronic
An overview of communications technology including specialized equipment: antennas: AM, SSB, & FM modulation and microwave, transmitters and receivers: satellite communications and antenna requirements and specialized teat equipment. Also, preparatory information pertaining to the FCC General Class License examination will be reviewed. Prereq: EET 211 and EET 215 or permission.

EET 241 (5) N
Principles of Telecommunications I
Intro to basic telephony: apparatus and plant design, network design, network traffic planning, private and switched networks, data systems and testing equipment. Lab.
EET 242 (5) N
Principles of Telecommunications 2

EET 243 (5) N
Principles of Telecommunications 3

EET 251 (5) N
Microprocessor Fundamentals I
Covers fundamentals of microcontroller and embedded systems. Review of digital fundamentals, microcomputer system organization, assembly programming, I/O devices and interfacing. Prereq: EET 127 or EET 170 or permission.

EET 252 (5) N
Microprocessor Fundamentals II
Covers assembly language, I/O devices, constructing, programming, and troubleshooting microprocessor-based applications. Prereq: EET 251 or permission.

EET 255 (8) N
Advanced Digital Computer Technology
Microcomputer applications and systems, software development, computer interfacing, peripheral devices and system troubleshooting. Emphasis on functional project development using software development systems, logic analyzers, and microprocessor emulators to verify hardware and software performance and troubleshoot malfunctions. Prereq: EET 210, EET 251 and CSC 109, or equivalent. Corequisite: EET 291.

EET 271 (10) N
Advanced Technology Modules/Electronics Technology
Self directed modules for customization programs specializing in Electronics Technology. Modules cover selected topics in switching regulators, lab view, automated test equipment, and power semiconductors. Coreq: EET 217 and EET 218; some modules may have additional requirements. Prereq: EET 112, EET 207 and EET 208.

EET 276 (10) N
Advanced Technology Modules/Power & Control
Self directed modules for customization programs specializing in Power and Industrial Control. Modules cover selected topics in stepper motors, sensors, transducers, motor control, or PLCs. Coreq: EET 217 and EET 218; some modules may have additional reqs. Prereq: EET 112, EET 207 and EET 208.

EET 285 (3) N
Electronics Technology Project
Team project course serving as a capstone experience in the electronics technology and related specialty programs. Plan, design, implement, and present an electronics-oriented project of suitable complexity. Prereq: EET 171 and 166.

EET 286 (5) N
Biomedical Equipment I
This course describes the issues unique to working in the healthcare environment, including theory and operation of equipment used for patient care. Emphasis on monitors for cardiovascular, respiratory, and neurological parameters, thermometry, and electrical safety. Labs emphasize maintenance, troubleshooting, and repair. Prerequisites: EET 163, AMA 117, CHEM 121, and AMA 119 or BIOL 128.

EET 287 (5) N
Biomedical Equipment II
Continues the study of medical technology, with a focus on equipment specific to the surgical setting, medical video, medication pumps, medical lasers, an overview of various imaging modalities, and technology used in the clinical laboratory. Lab exercises include maintenance, troubleshooting, and repair. Prereq: EET 286 with 2.5 or higher.

EET 291 (4) N
Electronics Externship
On-the-job training for electronics students who have finished their electronics certificate requirements and would like to improve their skills before actively seeking a job. Prereq: Completion of appropriate amount of designated program and permission. 55 hours of job-related work experience = 1 credit.

EET 297 (4) N
Biomedical Technician
Placement in a clinical engineering department or equipment manufacturer; 220 hours of mentored work experience, to integrate the theory and practice learned in EET 286 and 287. Prereq: EET 287 with 2.5 or higher.

EET 298 (5) N
Special Topics – Electronics Technology
Selected topics in electronics technology. Prereq: Permission.

EET 299 (7) N
Special Projects in Electronics I
Independent electronics study project assigned and directed by the instructor. Prereq: Permission and enrollment in electronics program.

Emergency Department Tech
EDT 101 (4) N
Emergency Department Tech Fundamentals
Provides the theoretical background needed for emergency department technicians to provide basic patient care and assist with the various procedures common to the emergency department.

EDT 103 (4) N
Emergency Department Tech Lab
Provides the students with the skills and techniques used by emergency department technicians on a daily basis.

EDT 105 (9) N
Emergency Department Preceptor
Gives the student the opportunity to apply theory and practice skills acquired in the program - while gaining experience in an actual emergency department. Working in this clinical environment, the student will be supervised by a member of the emergency department. The students will also interact with each other, through guided discussions, to share and learn from the experience of others.
Emergency Medical Technician (EMT)

AHE 190  (12)  N
Emergency Medical Technician
Provides training in pre-hospital emergency care. Follows State of Washington law and King County EMS. Coreq: AHE 192.

AHE 191  (2-5)  N
EMT – Continuing Education
Provides continuing education for EMTs to meet annual requirements for recertification.

AHE 192  (1)  N
Basic Life Support for Healthcare Providers
The American Heart Association BLS curriculum is the standard training for healthcare agencies/personnel. It meets the requirements for CPR certification and includes CPR for Adults, Children and Infants, AED (Automatic Defibrillation) and use of the Bag Valve Mask. For those in EMT program, this is a corequisite with AHE 190.

AHE 194  (4)  N
EMT Refresher
Continued training in emergency care for those who have previously passed the initial training but have not been State or National Registry Certified, or for those whose certification has expired by less than three years.

Engineering

ENGR 110  (2)  C,N,S
Engineering Orientation
Covers fields of engineering, career options and general information. Offered on a Satisfactory (S) grade basis only.

ENGR& 111  (4)  C,N,S
Engineering Graphics I
Covers principles of orthographic projection, freehand sketching, pictorials, lettering, scales and use of instruments, basic dimensioning and descriptive geometry. Intro to computer-aided and designed drafting. Prereq: MATH& 141.

ENGR& 112  (4)  C,N,S
Engineering Graphics II
Continuation of ENGR& 111. Includes basic principles of revolution and principles used to solve problems relating to curved and warped surfaces; intersection of surfaces; development of common shapes and surfaces; and procedures for finding the locus of a line. Prereq: ENGR& 111.

ENGR 116  (4)  S
Engineering Design & Creativity
Examine the nature of creativity and its process. Intro to analysis and solution of engineering problems, applications of vectors and calculus in statics and dynamics.

ENGR 140  (5)  N
Intro to Engineering Problems
Covers problem-solving methods; analysis in measurements, probability and statistics; dimensions and unit systems; vector algebra, intro to scalar statics. Prereq: MATH& 141.

ENGR 141  (5)  S
Scientific Programming
Covers problem analysis, algorithm design, numerical techniques and the elements of programming using MATLAB or similar high-level programming language. Emphasis on learning how to write clean, efficient and well-documented programs for modeling of scientific and engineering problems. Prereq: MATH& 142 or higher.

ENGR 142  (5)  C,N,S
Computer Programming
Central: Learn the general principles of modern programming, including how to design, implement, document, test and debug computer programs. Based on Java. Covers objects, messages, expressions, statements, methods, classes, conditionals, iterations, arrays and collections. Prereq: CSC 110 and MATH& 116 or 142 (C). ENGR 142 may be taken as CSC 142. South: Intro to computer science for scientists and engineers. Emphasizes design algorithms (variables, expressions, statements), abstraction (data types, functions) and analysis (correctness, efficiency). Prereq: CSC 110 and MATH& 141 (S). ENGR 142 may be taken as CSC 142.

ENGR 161  (4)  S
Plane Surveying I
Intro to basic surveying methods and functions, office procedures and field practices in the use of instruments. Organization of the field party to learn each job function. Includes theory and application of tapes.

ENGR 170  (4)  S
Intro to Materials Science
### Course Descriptions

**ENGR 271 (6) S**  
Digital Logic Design  
Intro to digital logic, Boolean algebra, combinational and sequential circuits and logic design, programmable logic devices and the design and operation of digital computers, including ALU and I/O. Weekly labs. Prereq: CSC 142 or permission.

**ENGR 298 (1-5) C,N,S**  
Special Topics  
A seminar of selected topics and/or activities in engineering. Prereq: Variable, dependent on topic.

**ENGR 299 (1-5) C,N,S**  
Independent Study  
Independent study of approved engineering topics. Prereq: Permission.

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**Engineering Graphics & Design Technology**

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
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| **TDR 100 (5) N** | | | Basic Building Information Management for Design  
Intro to basic Building Information Management/Modeling (BIM) practices using Autodesk’s Revit program. Focuses on familiarization with BIM environment including drawing commands, efficiencies of CAD vs. BIM. Emphasizes production skills. |
| **TDR 101 (5) N** | | | Intermediate Building Information Management for Design  
Covers drafting techniques for structural design using BIM with Autodesk’s Revit Structure. Work with beam, column, structural details, schedules and analysis of all structural members. Lab. Prereq: TDR 100 or permission. |
| **TDR 102 (5) N** | | | Advanced Building Information Management for Design  
Focus on whole commercial building creation, including details, construction drawings, building management and plotting as they relate to construction, design and sustainable applications. Focuses on Revit Architecture, MEP and Structure. Lab. Prereq: TDR 101 or permission. |
| **TDR 103 (4) N** | | | Energy Analysis for Building Information Management  
Continuation of TDR 102. Focuses on building Life Cycle Assessment (LCA), Building for Environmental Economic Stability (BEES), building envelope considerations, achievable green performance and use of green analysis software. Prereq: TDR 100, 101 and 102 or permission. |
| **TDR 105 (1) S** | | | Technical Employment Preparation  
Focus on the pre-employment components of the CAD/Design program. Covers job search techniques including resume writing, cover letters, job applications, interviewing techniques, industry visits, and portfolio preparation. Prereq: ENGL 105. Coreq: TDR 123. |
| **TDR 109 (1) N** | | | Architectural Engineering Lab  
A supervised drafting development lab where students can work on class projects to increase competency and hands-on skills using appropriate software or hand drafting techniques. May be repeated. |
| **TDR 111 (5) N** | | | Basic CAD Draft/Construction & Design  
Intro to basic Computer Aided Drafting practices using Autodesk’s AutoCAD program. Focus on drawing commands, layering, scaling, dimensioning and text styles as used in construction/design applications. Emphasizes production skills. Open Lab. |
| **TDR 112 (5) N** | | | Inter CAD Draft/Construction & Design  
Continuation of TDR 111. Focuses on team usage of external sources, creation of blocks, paper space/model space, file management and exchange and plotting as it relates to construction/design industry. May introduce isometrics and 3-D concepts. Emphasis on production skills. Prereq: TDR 111, TDR 174 or permission. |
| **TDR 113 (5) N** | | | Basic Drafting  
Learn the basic fundamentals of hand drafting. Focus on drafting equipment and its use, basic linework, hand lettering, orthographic projections, isometrics and basic sheet layout. Select discipline options including structures for construction/design or basic mechanical drawings. Open lab. |
| **TDR 115 (5) N** | | | Civil and Site Drafting  
Study development of site plans including basic contours, utility features, simple road layout and storm drainage features. Perform simple calculations. |
| **TDR 121 (4) N,S** | | | Drafting Technology I  
Covers basic drafting knowledge, skills and standards required to prepare three-view and pictorial drawings to current industry standards. Emphasizes standard practices and variations permitted when required for clarity. Prereq: TDR 121 or permission. |
| **TDR 123 (4) N,S** | | | Drafting Technology II  
Covers basic principles and practices involved in the creation of production drawings including dimensions and tolerancing, sections and auxiliary views. Emphasizes standard practices and variations permitted when required for clarity. Prereq: TDR 121 or permission. |
| **TDR 124 (5) N** | | | Materials & Method of Construction  
Intro to basic materials used in construction, with discussion on manufacturing, fabrication, design and assembly processes for large and small buildings. Focus on steel, concrete, wood and masonry construction. |
| **TDR 125 (4) S** | | | Drafting Technology III  
Advanced principles, techniques and application of engineering graphics including advanced dimensioning & tolerancing, detail and assembly drawings. Emphasis on standard practices ANSI, ASME or ISO and variation permitted when required for clarity. Prereq: TDR 123. |
| **TDR 126 (4) N,S** | | | Space Geometry  
Covers basic principles of space geometry and use of direct projection techniques to resolve spatial relationships. Emphasizes projection techniques and application of principles to problem solutions. Prereq: TDR 121 or permission. |
| **TDR 129 (3) S** | | | Industrial Blueprint Reading  
Primarily for the machinist. Covers the detail drawing page, title block, dimensioning, tolerancing, views of a drawing, drawing notes, drawing changes and geometric tolerancing. |
Course Descriptions

TDR 131 (4) N,S
Introduction to CAD 2-D
Learn the features, limitations and considerations associated with the operation of a computer-aided design/drafting (CAD) system. Practice using the AutoCAD micro-based CAD software. Prereq: TDR 121 or concurrent enrollment.

TDR 133 (4) N,S
Intermediate CAD 2-D
Builds on skills developed in TDR 131, providing students with additional instruction on advanced commands of the AutoCAD micro-based CAD software. Prereq: TDR 131.

TDR 134 (5) N
Systems in Buildings
Focuses on the major building systems including HVAC, water and waste, fire protection, electrical and structural. Intro to the Uniform Building Code, type of construction and history. Includes heat loss calculation and lateral loads and their resisting elements, plus earth work and foundations.

TDR 135 (4) S
Autocad 3-D Modeling
Intro to computer-based three dimensional modeling. Explores the fundamental concepts and workflows for creating 3-D models using AutoCAD, using industry-specific design scenarios. Prereq: TDR 133 or permission.

TDR 144 (5) N
Design & Construct Environment
Intro to basic organizational, business and legal aspects of the construction/design industry. Includes business forms, contractual obligations, employment issues, registration duties, public safety and other issues which may affect business.

TDR 160 (5) N,S
Surveying/CAD Civil
Covers basics of surveying and mapping, survey planning and operations, measurement of distances, angles and elevations. Includes taking field notes, calculating and plotting the survey data. Prereq: MATH 111, 112, TDR 123, 131 or permission.

TDR 161 (3) N
Architectural Drafting I
A continuation of TDR 160. Covers basic wood beam design. Includes allowable stress, loading criteria, shear and deflection. Covers basic truss analysis.

TDR 169 (4) S
CAD – Electrical
Covers basic skills in electronic schematic drafting using 3D CAD capabilities. Learn drafting styles used in electrical plans, such as power stations, industrial and house wiring. Use layout symbols for electric power systems and plot plans for residential/commercial electrical plans. Emphasis on real world applications to engineering problems. Prereq: TDR 131 and MATH 112 or permission.

TDR 174 (4) N
Intro to CAD/Architecture & Engineering
Intro to the basic concepts of Computer Aided Drafting (CAD). Uses AutoCAD to produce construction drawings and details. Covers the impact of CAD on productivity and contemporary design practice.

TDR 175 (4) N
Intermediate Autodesk for Architecture & Engineering
Covers more advanced AutoCAD commands and features and reinforces basics. Increase productivity and complexity of project assignments. Build the tools necessary to compete for AutoCAD positions in the design community.

TDR 176 (4) N
Advanced Autodesk/Architecture & Engineering
Advanced concepts of AutoCAD. Develop productivity tools such as macros, templates and system customizing. Begin to work in 3-D.

TDR 179 (4) S
CAD – Mechanical
Covers techniques used to prepare mechanical engineering drawings: basic mechanism geometry, detail and assembly drawings, emphasis on appropriate presentation of data. Prereq: TDR 123 & TDR 131.

TDR 197 (1-5) S
Internship
Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training situations. Orientation to internships required prior to registration. Prereq: Permission.

TDR 200 (5) N
Intro to Solid Works
Intro to basic parametric solid modeling practices using SolidWorks or comparable programs to industry standards. Learn engineering graphics in the 3D environment including drawing commands, efficiencies of PSM vs. the 2D environment, CAD or 3D experience recommended.

TDR 201 (5) N
Intro CATIA
This course will focus on students wanting to become a technical designer with emphasis in part creation, assemblies and minor surface commands. These are key elements of CATIA and will be built upon on subsequent classes. Student should have strong skills in CAD applications that pertain to 3D and Solid Modeling.

TDR 202 (5) N
Intermediate CATIA
This course will focus on students wanting to become a technical designer building upon what was learned in TDR 201 with emphasis in advanced surfacing. The student should have advanced skills in various CAD applications as it pertains to 3D and solid modeling. Prereq: TDR 201 or instructor permission.

TDR 228 (4) S
CAD Sheet Metal/HVAC
Understand CAD operation including interactive graphics systems start-up, setup of drawing session, menus and commands, geometry, editing, drawing storage and retrieval using the latest version of AutoCAD. Prereq: TDR 123 & TDR 131 or permission.

TDR 230 (4) S
CAD 3-D Parametric Solid Design I
Intro to the capabilities of the 3D CAD software, using a feature-based parametric solid modeling design with many industry applications. Covers true 3-D surfaces and 3-D viewing options, the use of X, Y, Z filters and the user-defined coordinate system (UCS). Prereq: TDR 123 and 131.

TDR 231 (4) N,S
CAD 3-D Parametric Solid Design II
Explores 3-D graphics and construction capabilities of 3D CAD. Includes a review of point coordinate entry, X, Y & Z filters and the user coordinate system (UCS). Intro to spherical and cylindrical coordinate entry along with 3-D viewing options, 3-D geometry construction, surface mesh, region and solid modeling. Prereq: TDR 230 or permission.

TDR 236 (1) N,S
Design Project Management
Integration of basic elements of a design project: design process, teamwork, project planning and management and project presentation. Prereq: TDR 233 or 235, TDR 231 and MET 102.
Finding Courses
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

Prefix to Name
HIN ........... Watch Technology
Name to Prefix
Watch Technology ............ HIN

Common Course Numbering explanation is on page 224.

TDR 237 (2) N,S
Design Project I
Practical application course utilizing previously acquired skills. Concentration on the civil aspects of a major design project. Prereq: TDR 236 or permission.

TDR 238 (2) S
Design Project II
Practical application course utilizing previously acquired skills. Concentration on the aspects of a major design project.

TDR 240 (4) S
Intro to CATIA
Intro to CATIA (Computer Aided Three Dimensional Interactive Application). Gain understanding of the CATIA interface and how to use CATIA to create solid models of parts, assemblies and drawings. Understand how to manage parts in the context of an assembly. Produce simple parts drawings and assemblies. Prereq: TDR 135 or permission.

TDR 241 (4) S
Intermediate CATIA
Expand skills and techniques using advanced features of computer-based 3D modeling. Produce the parts, drawings and assemblies, surfacing and sheet metal drafting. Prereq: TDR 228 and 240 or permission.

TDR 258 (5) N
Contract Drawing Prep I
Preparation of architectural drawings with emphasis on wood frame structures and light commercial buildings. Includes building codes, specifications and building department requirements for obtaining building permits. Uses Revit Architecture CAD program.

TDR 259 (5) N
Contract Drawing Prep II
Similar to TDR 258 with emphasis on structural drawings required for obtaining building permits. Use Revit Structure CAD program. Discusses requirements for mechanical, electrical, civil and landscaping drawing sets.

TDR 263 (4) S
Applied Mechanics I
Graphical methods for determining resultants and equilibrants in coplanar, parallel and non-parallel force systems, such as beams and trusses. For drafting majors. Prereq: MET 102 or permission.

TDR 265 (5) N
Structural Detailing
Prepare shop drawings for both structural and reinforcing steel using guidelines from American Institute of Steel Construction and Concrete Reinforcing Institute. Use local shop detailing procedures. Open lab.

TDR 266 (4) S
Architectural/Structural
Design considerations and drawing preparation required to construct a frame and masonry building. Includes floor plans, elevations, structural details, mechanical and electrical requirements. Prereq: Second-year standing or permission.

TDR 269 (5) N
Construction Estimating
Intro to quantity take-offs and pricing of materials by working on problems common to the general contractor. Focus on creating an ordered method of determining material and labor costs and other factors.

TDR 270 (5) N
Advanced Estimating
A continuation of TDR 269. Covers labor and business costs. Develops a system to prepare estimates for complete jobs from current contract documents.

TDR 272 (4) N,S
Applied Mechanics II
Covers structural material strength and basic calculations involved when loading structural members and joints. For drafting majors. Prereq: TDR 263.

TDR 276 (3) N
Computer Aided Drafting I
Introduction to use of microcomputer CAD system. Provides familiarization with the system and simple drawing on the computer.

TDR 277 (3) N
Computer Aided Drafting 2
Continuation of TDR 276, introducing more advanced features of AutoCAD, covers plot and print configurations, creation of isometric drawings, 3-D drawing basics, and using wireframe and surface models.

TDR 278 (3) N
Computer Aided Drafting 3
A customizing AutoCAD class featuring fine-tuning of AutoCAD software to meet specific industry needs. Students select a project to develop customizing techniques using Auto-LISP programming language. Industry standards applied to performance for a passing grade.

TDR 280 (4) S
Geometric Dimensions & Tolerances
Basic interpretation of geometric tolerances on engineering drawings. All studies are based on ANSI Y14.5M:1982. Prereq: TDR 179.

TDR 297 (1-10) N
Construction Engineering Drafting
For students with solid AutoCAD skills. Intro to Architectural Desktop, one of Autodesk’s specialized versions of the AutoCAD program. Focus on using the special tools and commands to create flexible computer models and drawing sets for construction/design applications. Emphasizes production skills. Prereq: TDR 174 and 175 or TDR 111 and 112 or permission.

TDR 298 (1-10) N,S
Special Topics Drafting
Individual or group study in industrial drafting. Prereq: Permission.

TDR 299 (1-3) N,S
Drafting Design Projects
An independent laboratory course consisting of specially arranged sessions and substantial independent study to explore areas of special interest or expand specific drafting and/or computer skills.

English
See Languages & Literature, page 318.

English as a Second Language
See Languages & Literature, page 318.
Environmental Science

**ENVS 100 (5)** C,N,S
Survey of Environmental Science
Covers natural principles governing operation of the environment, including interaction between humans and the environment, emphasizing attitudes and actions to maintain a healthy ecosystem.

**ENVS 101 (5)** C,N,S
Intro to Environmental Science
Covers natural principles governing operation of the environment including interaction between humans and the environment, emphasizing attitudes and actions to maintain a healthy ecosystem. This course has a lab component focusing on major topics in environmental science. Prereq: ENGL 101 eligibility and Math 098 (C); Prereq: ENGL 101 recommended (N).

**ENVS 150 (5)** C,N,S
Environmental Issues/Problems
Covers natural principles governing operation of the environment including interactions between humans and the environment, emphasizing attitudes and actions to maintain a healthy ecosystem. Prereq: Eligibility for MATH 084, 087, or 091 (C) and ENGL 101.

**ENVS 160 (5)** C,S
Principles Environmental Sustainability
Investigates a variety of local and global sustainable initiatives to combat degradation of the natural environment. Combines the basic science of environmental issues with a critical analysis of the societal value and environmental impact of trends in sustainability. Covers efforts by non-profit organizations, communities, education initiatives, political reform and personal choices. Prereq: Eligible for ENGL 101 and MATH 084, 087, or 091 (C).

**ENVS 170 (5)** C,N,S
Energy & Resources – Now & in the Future
Study of energy and material resources, both personal and worldwide production and consumption. Investigates the impact on the natural environment from production of coal, wind, solar and hydropower; gasoline, electricity and hydrogen fuel transportation; and natural gas and biomass heating options. Focus on sustainable alternatives to meet energy and material needs. Prereq: Eligibility for MATH 084, 087, or 091 (C).

**ENVS 197 (1-5)** C,N,S
Internship Sustainable Agriculture
To view formalized SAGE internship partner announcements and register for internship credit, visit room BE 1103. Students may also pursue alternative internships of their choice with appropriate farms, businesses, organizations or agencies. Prereq: Instructor permission; eligibility for MATH 084 and ENGL 101 or permission.

**ENVS 200 (2)** C
Sustainable Food Systems Employment Seminar
Seminar Presentations and panel discussions involve community members who work in sustainable agriculture, food systems and other natural resource careers. Identify opportunities to acquire the skills needed in this field. Prereq: Eligibility for ENGL 101 and MATH 084, 087, or 091 (C) or permission.

**ENVS 201 (5)** C,N,S
General Ecology
Covers the nature of ecosystems, energy flow, bio-geochemical cycles, population dynamics, organization and dynamics of communities and identification of environmental problems.

**ENVS 202 (5)** C
Principles Agroecology
Survey of sustainable agriculture particularly in the Pacific Northwest. Explore crop biodiversity, weed and pest management, livestock production and organic crop propagation. Includes water use and pollution, natural resource conservation and energy use on sustainable farms. Optional 2-credit service learning. Lab and weekend field trips. Prereq: Eligible for MATH 084 and ENGL 101 or instructor permission; Env 202 and 204 recommended.

**ENVS 203 (5)** C,N,S
Environmental Issues/Problems II
Encompasses the role of technological humans in the global ecosystem. Covers current environmental topics with a view toward solutions. Includes urban growth, air and water pollution and siting of nuclear power plants. Prereq: An environmental science, geology or geography class, or permission.

**ENVS 204 (5)** C
Intro Soil Science Restoration
Understand soils as living systems. Explore physical, chemical and biological properties; nutrient cycling; fertility analysis and management; decomposition and composting; soil restoration; site diagnosis and classification of soils; and conservation practices. Lab and weekend field trips. Prereq: Eligible for MATH 084, 087, 091 (C) and ENGL 101; recommend Env 202.

**ENVS 205 (3)** C,N
East African Bio-Culture
For educators interested in developing classroom materials based on topics and areas covered by the East Africa Study and Travel Program. Field trip.

**ENVS 206 (5)** C
Agroforestry Systems
Agroforests integrate woody plants and forest elements with crops and animals for increased productive, socioeconomic, environmental and ecological benefits. Examine origin and modern adaptations, working hypotheses, management systems and practices, site diagnosis and design. Optional 2 credit service learning. Lab and weekend field trips. Prereq: Eligible for MATH 084, 087, or 091 (C) and ENGL 101 or permission; Env 202 and 204 recommended.

**ENVS 208 (5)** C
Eco Science Management Conservation
Covers natural and human dimensions of forest ecology and land use in the context of Pacific Northwest and global environmental issues. Emphasis on forest ecosystem patterns and processes under various conditions of management and conservation. Optional 2 credit service-learning. Lab and weekend field trips. Prereq: Eligible for MATH 084 and ENGL 101 or instructor permission; Env 202 and 204 recommended.

**ENVS 214 (5)** C
Urban Food System Analysis
Investigates the complex ecological, social and economic interactions of the food system. Emphasis on food security in urban areas, through food banks, urban gardens, food cooperatives and farmers markets. Optional 2 credit service learning, Weekend field trips. Prereq: MATH 084, 087, or 091 (C) and ENGL 101 eligibility or permission.

**ENVS 216 (5)** C
Sustainable Urban Food
Covers history, principles and practices of biointensive urban gardening. Explore methods to increase yields, and conserve and maintain healthy ecosystems. Includes garden planning, soil preparation, composting, backyard livestock, seeds, transplanting, perennial food plants, and food preservation, Lab and weekend field trips. Prereq: Eligible for MATH 084 and ENGL 101 or permission; Env 202 and 204 recommended.
Dental Coronal Anatomy

EFDA 111 (2) C
Dental Materials Techniques
Covers the chemical, physical and mechanical properties of dental materials, selection of the appropriate material, basic techniques, safety measures and proper handling protocol. Reviews cavity design and preparation of cements, bases and liners, placing, carving, polishing amalgam restorations and contouring and finishing anterior and posterior composites.

EFDA 200 (1) C
Procedures II
Increase knowledge and skills including oral anatomy, dental anatomy and morphology, radiology, pharmacology, dental materials, patient case management and restorative dentistry procedures. Perform restorative procedures on typodonts and on patients. Prereq: EFDA 100.

EFDA 201 (4) C
Restorative Clinic II
Demonstrate clinical competence on patients using the full range of basic restorative procedures, from patient management to technical skill of operating field isolation and restoration placement and finishing. Prereq: EFDA 101.

EFDA 202 (1) C
WREB Preparation
Preparation for the Western Regional Examining Board (WREB) restorative examination for licensure. The WREB requires the placement, carving and finishing of one amalgam and one composite posterior class II restoration within a specific time frame at a minimum passing level. Practice simulation testing to develop sufficient proficiency. Prereqs: EFDA 100, 101, 110, 111.

EFDA 212 (1) C
Ethics and Jurisprudence
Covers the ethical, legal and regulatory issues for an EFDA in private dental offices and community settings. Includes professional traits, theories of moral development, ethical dilemmas and principles, the state dental practice act, the EFDA-patient relationship and risk management in the dental practice. Prereq: EFDA 100, 101, 110, 111.

Foreign Languages

See Languages & Literature, page 318.
General Educational Development (GED)

GED 050 (1-18) C,N,S,V
Basic GED Preparation 5
Prepare to pass the Language Arts Reading & Writing, Social Studies, Science and Math GED subject-area tests leading to the General Educational Development Certificate. Follows WA State Learning Standards. Aims for reading and math skills high enough to enter professional technical programs.

GED 051 (1-15) C,N,S,V
Basic GED Prep Math 5
Prepares learners to pass successfully the GED Math test.

GED 052 (1-15) C,S,V
Basic GED Prep Comm 5
Prepares learners to improve their general reading, writing and test-taking skills with special emphasis on reading for the GED Social Studies, Science and Language Arts tests.

GED 054 (1-15) C,S,V
Basic Computer Assisted GED
Provides learners the opportunity to improve their general reading, writing, math and test-taking skills for the GED tests through the use of micro-computers and relevant basic skills software.

GED 060 (1-15) C,N,S,V
Advanced GED Prep Level 6
Prepares learners to pass successfully the remaining GED tests needed to complete the official GED certificate.

GED 061 (1-15) C,N,S,V
Advanced GED Prep Math 6
Prepares learners to use the math concepts and applications needed to pass the math portion of the official GED test.

GED 062 (1-15) C,N,S
Advanced GED Prep Comm 6
Improves general reading, writing and test-taking skills with special emphasis on reading for the GED Social Studies, Science and Art and Literature tests.

GED 064 (1-15) C,S,V
Computer-Assisted GED Prep 6
Improves general reading, writing, math and test-taking skills for the GED tests through the use of micro-computers and relevant basic skills software.

GED 070 (4) V
Intensive GED Prep
For those who have already passed four of the five GED subject area tests. Prepare to pass the final GED subject-area test leading to the GED Certificate. Follows WA State Learning Standards. Aims for reading and math skills high enough to enter professional technical programs.

Geography

GEOG 100 (5) C,N
Intro to Geography
Introduction to major concepts of geography, climate, landforms, and biogeochemical processes. The course also concentrates on analysis of population demographics, culture, language and religion, food production, patterns of urbanization, paths to economic growth, resource use, and environmental concerns in a globalized world.

GEOG 155 (5) C
Global Political Geography
Survey of political geography and scientific theory, offering students an analytical understanding of forces affecting the territorial and functional role of the state in today's world. Examines contemporary cases of territorial and functional change among states.

GEOG 200 (5) C,N
Human Geography
Intro to human patterns on the Earth's surface, distribution, political divisions and economic activities. Emphasis on the role of geography in understanding the developments and diffusion of value systems and cultural differences in the 20th century.

GEOG 205 (5) C,N
Physical Geography
Survey of character and location of different types of land forms, climates, soils, vegetation, minerals, water resources and significance to human occupancy.

GEOG 207 (5) C,N
Economic Geography
Focus on human survival. Examines resource scarcity and uneven distribution and use of technology to extract natural resources. Emphasis on competition for resources and major world conflicts, past and present, stemming from this competition.

GEOG 230 (5) C,N
Urbanization in Developing Nations
Focus on cities in their cultural and economic contexts, geographical patterns, internal structure, current problems in rapidly growing cities and selected policy solutions.

GEOG 260 (5) N
Geopolitics/Middle East
Geopolitics is the "game nations play" to extend influence and control over nations. Focuses on the "game" as it relates to the Middle East and Arab, Afghan, Persian, Egyptian, Israeli and Palestinian people and current events and the geopolitics of petroleum. Course material is controversial.

GEOG 298 (1-5) C,N
Special Topics/Geography
Independent study in selected geography topics under faculty supervision. Prereq: Permission.

Geology

GEO& 101 (5) C,N,S
Physical Geology
Covers the materials of the Earth and the processes that have shaped and placed them, especially plate tectonics. Lab included. Field trips may be required. Placement into ENGL& 101 is strongly recommended (N). Prereq: Eligible for MATH 084, 087, or 091 (C).

GEO& 103 (5) N
Historical Geology
Studies the formation and development through time of the solid Earth, atmosphere, and biosphere. Covers past movements and locations of the continents and interpretation of past environments as recorded in rock and fossil records. Lab included. Field trips may be required. Placement into ENGL& 101 is strongly recommended (N).

GEO& 105 (5) C
Intro Field Geology
Survey of physical geology, including the Earth's interior and exterior. Covers the origin and evolution of the Earth, rocks and minerals, surface processes such as glaciation, river erosion and transport and mass movement. Field exercises involve data collection and analysis. Course may require extended overnight stays. Lab included. Prereq: Eligible for MATH 084, 087, 091 (C).
GEOL 106 (5) N,S
Dinosaurs
Studies dinosaurs and the world they lived in. Covers origins, evolution, biology, behavior and extinction of dinosaurs and their relationship to birds and mammals. Intro to history of the biosphere, Earth’s climate and its changes. Placement into ENGL& 101 is strongly recommended (N).

GEOL 108 (5) N
Minerals, Gems, Fossils
Intro to the nature of earth materials, including minerals, with an emphasis on gem minerals and fossils. Covers mineral composition, structure, physical properties, and origins, along with gemology, color mechanisms, history and lore of gems, and uses of gems. Covers fossil identification, preservation and interpretation. Lab class. Placement into ENGL& 101 is strongly recommended (N).

GEOL& 110 (5) C,N,S
Environmental Geology
Covers the effects of geologic processes and materials on human activity, and the effects of human activity on the Earth. Emphasizes awareness of geologic aspects of our everyday environment including the identification of problems, and the formulation and evaluation of solutions. Lab included. Field trips may be required. Prereq: Placement into MATH 098 or equivalent or permission. Placement into ENGL& 101 is strongly recommended (N).

GEOL 111 (1) C,N
Geology Field Day
A one-day field trip and five-hour lecture on active and ancient geology in the Pacific Northwest. Topics include faults, glaciers, fossils, landslides, and the Cascade Mountain Range. Lab credit. Also offered as SCI 111.

GEOL& 115 (5) N
Geology National Parks
Study of the geology and geologic history of selected national parks and monuments in the context of the geologic history of North America, the Pacific Basin, and the Atlantic Ocean. Labs deal primarily with geologic maps. At least two field trips required. Placement into ENGL& 101 is strongly recommended (N).

GEOL 118 (1) C,N
Volcano Field Day
Introduction to the origin and destruction of the Cascade volcanoes such as Mount St. Helens, Mount Rainier and Glacier Peak. Includes five hours of lecture and a one-day field trip. Lab credit. Also offered as SCI 118.

GEOL 207 (5) N,S
The Ice Ages
Provides a history of the plants, animals, and continental ice sheets of the last three million years. Special attention to fossil and archaeological records of human beings. Lab included. Two Saturday field trips may be required. Placement into ENGL& 101 is strongly recommended (N).

GEOL& 208 (5) C,N,S
Geology of the Northwest
Covers the geologic history and description of Washington, Oregon and Idaho, and selected nearby areas. Emphasis on use of geologic principles to interpret present landscapes. Lab and field trips included. Prereq: GEOL& 101 or permission.

GEOL 298 (1-5) N
Special Topics
Seminar on selected topics or activities in geology. Prereq: Variable, dependent on topic.

GEOL 299 (1-5) N
Independent Study
Independent study of selected geology topics. Prereq: GEOL& 101 and permission.

German
See Languages & Literature, page 318.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
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</table>
| DES 151     | 3.5     | Interactive I  
This course will address the considerations needed when designing an interface and the differences and similarities between screen-based media and print-based media. This course is intended for the beginning to intermediate graphic design student who has an interest in designing interfaces for websites, mobile devices, kiosks, computer applications, and more. |
| DES 152     | 3.5     | Interactive II  
Covers the basics of webpage design and development. Addresses the challenges of developing a series of webpages using the structural elements of HTML and the stylistic elements of CSS. |
| DES 153     | 3.5     | Interactive III  
Design the user-experience for a website and build the final site using HTML and CSS. Includes the User-Centered Design process, designing a site architecture, conducting usability studies, producing task-flows and wireframes, and creating responsive site layouts. |
| DES 197     | 1-5     | Work Experience/Advanced Art  
Earn work experience credit in Graphic Design. Prereq: Permission. |
| DES 223     | 4       | Typography III  
Interpret an author’s written language into a meaningful visual form using the basic principles of traditional book design and typographic conventions. Create a case-bound book that eloquently expresses the author’s words filtered through the student’s interpretation. |
| DES 231     | 4       | Graphic Design IV  
Explore advertising, art direction and photo direction, emphasizing expressive, creative and collaborative problem solving. Develop further research skills. Learn techniques for creating engaging ads for a variety of media and targeting the right market with the right messages. |
| DES 232     | 4       | Graphic Design V  
Course explores multi-page editorial design, taking into account the audience and existing advertising base. While the focus will be on magazines, the skills developed are also applicable to other common design tasks—annual reports, business documents, newspapers, brochures, newsletters and other multi-page documents. |
| DES 233     | 4       | Graphic Design VI  
Covers poster design as a form of visual communication. Emphasizes conceptual visual problem-solving for various audiences and outcomes. Solve various poster design problems with a variety of visual approaches, including typography, graphics, Illustration and/or photography. |
| DES 234     | 4       | Graphic Design VII  
Design and produce a corporate identity system, including trademark or logo and applied graphics, for a mix of visual applications for a business. Covers research, mind-mapping, creative development, contemporary design approaches, and creating a complete system. |
| DES 235     | 4       | Graphic Design VIII  
Design and install the SCCA Portfolio Show. Working in teams, explore creative options to the layout and navigation of the show. Include 2-D and 3-D display installation options, print and web portfolios displays, motion graphics, internal and external signage in the planning. |
| DES 236     | 4       | Graphic Design IX  
Acquire work contracts with a client and apply design skills in exchange for a fair wage or equitable trade. Gain practical experience with pricing and negotiating fees, writing proposals and design briefs, organizing efficient timelines, managing workflows, and applying basic accounting and business practices. |
| DES 238     | 4       | Graphic Production IV  
Use InDesign and Acrobat for organization, layout and production of long documents such as magazine and books. Use guides, styles, master pages, editing tools and PDF options in simple and complex layouts. Organize files with Adobe Bridge, preflighting and packaging. |
| DES 249     | 4       | Interactive IV  
Learn to design interfaces such as websites, mobile devices, kiosks, computer applications. Study the differences between screen-based media and print-based media. |
| DES 251     | 4       | Interactive V  
Study a variety of content management systems, focusing on the popular, free, open-source WordPress blogging platform. Build an entire WordPress website for a community non-profit client. |
| DES 252     | 4       | Portfolio Prep  
Develop, design and prepare a portfolio that represents individual creativity and demonstrates skills for seeking employment in the Graphic Design field. Develop a personal business card and stationery. |
| DES 253     | 4       | Environmental Graphics I  
Explore graphics designs that are sensitive to human scale in built and natural environments, including way-finding systems, informational signs and symbols, exhibit design and ornamental solutions. |
| DES 270     | 4       | Special Projects I  
First of three courses that expand current graphics design knowledge and skills through work on a major self-initiated design project. Emphasizes research and design process to reach a successful design solution. |
| DES 280     | 4       | Special Projects II  
Second of three courses that expand current graphics design knowledge and skills through work on a major self-initiated design project. Emphasizes research and design process to reach a successful design solution. |
| DES 282     | 4       | Special Projects III  
Third of three courses that expand current graphics design knowledge and skills through work on a major self-initiated design project. Emphasizes research and design process to reach a successful design solution. |
DES 298 (1-5) C  
Special Topics  
Designed to provide a flexible format for offering in-depth studies in new and emerging technologies relevant to the Graphic Design Program.

DES 299 (1-5) C  
Independent Study – Graphic Design I  
Independent study on selected graphic design topics.

Health  

HEA 025 (5) S  
Health Career Link  
Covers physiology for understanding body functioning, including organic and functional disease and disease prevention. Prereq: Appropriate placement on English and Basic Skills tests.

HEA 125 (5) C,S  
Health and Wellness  
Overview of health as an individual and community-based social construct. Analyzes health determinants and health outcomes as a function of genetics, culture, environment and health behaviors. Emphasizes a holistic model and intellectual inquiry into what constitutes health and well-being. Prereq: MATH 084 and ENGL& 101. Eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better (C).

HEA 150 (5) N,S  
Health & Human Sexuality  
Covers principles of personality development, body functioning, problems and solutions. Includes human sexuality and family education relating to psycho-sexual development, behavior, problems and solutions.

HEA 160 (5) S  
Human Wellness & Fitness  
Comprehensive study of human fitness and wellness, including exercise physiology and training concepts, nutrition, weight management, chronic disease prevention and health promotion. Assess own fitness level and design an individual program to achieve and/or maintain fitness.

HEA 225 (5) C  
Global Health  
Examines global patterns of health and disease as a function of economic, social and cultural determinants. Includes measurement of health outcomes, comparative analysis of health care systems, health and disease patterns of epidemiology, transnational disease, health inequalities and major players in global health. Prereq: Eligibility for MATH 084, 87, or 91. Completion of ENGL& 101 with a 2.0 or better (C).

HEA 226 (2) C  
Advanced Global Health Seminar  
Self-directed study, including research and presentation, of an area of global health. Prereq: Completion of HEA 225 or completion of MATH 084, 87, or 91 and ENGL& 101 with a 2.0 or better and instructor permission (C).

HEA 228 (5) C  
Water, Gender, and Global Health  
Study global health issues, particularly relating to gender and/or access to adequate and clean water. Includes water-borne and water-related diseases and analysis of various causes of maternal mortality. Involves interdisciplinary problem-solving. Requires 16 hours of service learning in local community. Prereq: HEA 225 or permission.

HEA 299 (1-5) C,N,S  
Independent Study  
Independent study in health education. Prereq: Permission.

Health, AC & Refrigeration Design/HVAC  

ECT 101 (12) N  
Heating – Theory, Equipment & Application  
Orientation to program requirements, HVAC industry and opportunities, technician training and safety procedures. Covers HVAC physical laws, fuels and combustion, and heating equipment, including parts, operation, controls and system operation.

ECT 102 (12) N  
Basic Refrigeration & Air Conditioning  
Covers basic refrigeration system operation, including refrigerants, components, controls and operating cycle for comfort air conditioning and process refrigeration. Prereq: ECT 103 or permission.

ECT 103 (12) N  
Residential Applications  
Calculation of heating and cooling loads to properly size residential heating and air conditioning systems. Includes application of equipment, design of residential distribution systems, balancing air distribution systems and troubleshooting. Prereq: ECT 102.

ECT 106 (2) N  
Electrical Fundamentals  
Covers basic electricity as used in HVAC equipment for power and for control purposes. Covers the electron theory, generation of electricity, Ohms Law, circuitry and electrical devices. Prereq: Concurrent enrollment in ECT 101.

ECT 110 (2) N  
Blueprint Reading/Building Construction  
Includes types of drawings, plan formats, terminology, scale, symbols and specifications with emphasis on mechanical parts; residential and commercial building construction with emphasis on HVAC systems. Prereq: ECT 106 or permission.

ECT 111 (2) N  
Hydronic System Design  
Intro to hydronic system design. Includes equipment piping layouts, sizing, and control systems. Prereq: ECT 110.

ECT 197 (10) N  
Special Topics: HVAC  
Study of selected topics in Heating/Air Conditioning and Refrigeration Design as considered appropriate by the instructor and/or HVAC faculty. Course content, format and projects vary. Prereq: Permission.

ECT 206 (2) N  
Computers in Engineering Applications  
Covers the use of Carrier Corporation E20-II software programs to select HVAC equipment, size hydronic system piping, perform heat gain and heat loss calculations, design duct systems and size refrigeration lines. Prereq: ECT 103 or permission.

ECT 207 (2) N  
Energy Management  
This course reviews energy sources, conservation management, evaluation, measuring systems, financial analysis, estimating and system retrofit.
ECT 208 (2) N
HVAC Marketing & Sales
Develop knowledge and skill to analyze market needs, identify prospective customers, prepare bids and presentation materials and make sales presentations. Prereq: ECT 207, current enrollment in HVAC program, or permission.

ECT 209 (2) N
Computerized HVAC System
Reviews the application of computerized, digital, electronic automation to HVAC systems.

ECT 213 (12) N
System Design & Application III
Part 4 of 4 in HVAC Design Technology. Covers "wet side" design, including heating generation, heat transfer, hydronic pumping loops, pump performance and selection, hydronic system design and pipe sizing, refrigeration systems and line sizing and chilled water systems.

ECT 271 (5) N
Refrigeration-System/Components
The first of two courses that cover refrigeration for commercial applications. This first course includes a description of various systems, controls and operation of each. Theory and application is included with lecture and lab work for each major section. Prereq: ECT 103 or approval.

ECT 272 (5) N
Refrigeration-Application
The second of two courses that cover commercial refrigeration. This course covers load calculations, system design and operation. Theory and application is included with lecture and lab for each major section. Prereq: ECT 271 or approval.

ECT 298 (10) N
Special Topics in HVAC
Study of selected topics in heating, air-conditioning, and refrigeration design as considered appropriate by the instructor and/or HVAC faculty. Course content, format, and projects vary.

ECT 299 (5) N
Independent Study in HVAC
Independent study of selected topics in heating, air-conditioning, and refrigeration design, as considered appropriate by the instructor and/or HVAC faculty. Course content, format, and projects vary. Prereq: Permission of instructor.

HVC 101 (5) N
Essentials of HVAC
First HVAC course in the HVAC Technician course of study on the fundamental principles of heating, ventilation, and air conditioning (HVAC). Covers safety, basic refrigeration, electricity, combustion and venting, air distribution and indoor air quality (IAQ). Prereq: BUS 169 or instructor permission.

HVC 210 (5) N
HVAC Cooling System
HVC 210 is the second class of a series in Heating, Ventilating and Air-Conditioning installation. The course covers the state, federal, and local codes and requirements on the installation of air conditioners, heat pumps, and hydronic heating systems. Included is the theory of, and hands-on installation of air conditioners, heat pumps, air distribution systems, refrigeration piping, electrical wiring, and basic control systems is covered. Prereq: HVC 101 and EET 160. Corequisite: HVC 211.

HVC 211 (5) N
Cooling Heating System Installation
Part two of four HVAC Learning Solutions courses. Covers the basic theory and design of heating and cooling systems, including furnace, air handler service and air distribution, AC refrigeration, and heat pumps, electrical control subsystems, temperature control, system wiring, and motors. Prereq: HVC 101.

HVC 212 (5) N
HVAC System Installation
Part three of four HVAC Learning Solutions courses. Covers the repair and maintenance of cooling systems, including air handler service and air distribution, AC refrigeration, heat pumps, electrical control subsystems, temperature control, system wiring, and motors. Prereq: HVC 211.

HVC 220 (3) N
Green HVAC
Intro to building science and sustainability with emphasis on HVAC. Includes new code updates, building science concepts, green building strategies, innovative and trending "green" equipment options. Learn to translate new green HVAC into sales and enhanced comfort. Work on links between building science and business science.

HVC 221 (5) N
Basic Maritime HVAC
Learn to work with multi-brand marine refrigeration & HVAC equipment, including covering chilled water systems, direct expansion and central plant for multiple applications, installation and retrofit of equipment, maintenance, repair, and troubleshooting. Prereq: HVC 101, 210, 211.

HVC 222 (5) N
Basic Container Refrigeration
Learn to work with integral refrigerated containers, including shore-side maintenance, installation, retrofitting and troubleshooting of refrigerated intermodal container units. Prereq: HVC 201, 210, 211.

HVC 226 (5) N
HVAC Electronics & Control Systems
Home and Building Automation Systems are centralized, interconnected, networks of hardware and software which monitor and control the environment in residential, commercial, industrial, and institutional facilities. Starting with the basics, this course covers analog and digital sensors and controls in residential and light commercial applications. Prereq: HVC 101 and EET 160 or instructor’s permission.

HVC 228 (5) N
Energy Performance
Learn the basics of energy performance of homes including analyzing and recording various characteristics of the building envelope; the walls, ceilings, floors, doors, windows, and skylights. Learn how to perform blower door tests, duct blasting and duct air flow tests. Learn the use of infrared thermal imaging cameras to determine high loss/gain areas of the structure’s envelope. Prereqs: HVC 212 and HVC 220 or instructor permission.

HVC 241 (3) N
Solar Electric Design
Explore the use of sunlight to produce electricity. Practical & economical design of photovoltaic power systems, site analysis, system sizing, equipment specifications and component selection, code requirements, economics of photovoltaic solar systems, and energy efficiency and conservation impacts on system design will be covered. Prereqs: HVC 226 or instructor permission.
### HVC 243 (5) N
**Photovoltaic Performance Analysis**
Deals with system performance & commissioning including pre-inspection checkout, startup, troubleshooting, verification, and monitoring. Focus is on a safe and properly installed system with overview of advanced metering tools. Prereq: HVC 212 and HVC 241 or instructor permission.

### HVC 245 (5) N
**Advanced Photovoltaic System Design**
Focus in on photovoltaic systems compliance with NEC codes & regulations. Emphasis on component selection, string sizing, inverter/module matching, conductor sizing, overload protection, grounding, mounting systems, battery backup. Prereqs: HVC 212 and 243 or instructor permission.

### History

**NOTE:** (History 035 - 091 series fulfills high school completion requirements.) Prereq: Appropriate placement on English and Basic Skills tests.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Prereq/Modes</th>
<th>Description</th>
</tr>
</thead>
</table>
| HIST 036    | 5       | C,N          | United States History II  
Covers U.S. development from the Civil War to the present. Includes political, social and economic forces affecting the United States during the period of westward movement, industrialization, world wars, economic growth and world dominance. Covers the profound technological developments of the twentieth century in relation to the world of work. |
| HIST 037    | 5       | S            | Washington State History C-Link  
Covers the historical development of the Pacific Northwest, with emphasis on the development of Washington state. Looks at contemporary, economic, political and social problems. |
| HIST 105    | 5       | C            | Intro to American Civilization  
Intro to American history, government and culture for foreign-born students. Includes past and present political, cultural and socioeconomic aspects. Emphasis on developing cross-cultural understanding and an appreciation of the diversity inherent in American culture. |
| HIST 106    | 5       | N            | Survey of American History  
Survey of American history from pre-colonial to the present with emphasis on political, social, cultural and economic developments. |
| HIST 108    | 5       | N            | World in Evolution -1500  
Comparative study of the world’s major civilizations (African, Chinese, European, Greco-Roman, Indian), with major emphasis on understanding value systems such as Christianity, Hinduism, and Judaism, and their expression in different political, social, economic and cultural-religious systems. |
| HIST 120    | 5       | C            | Survey of African History  
Surveys the complexity of African societies, including colonialism and its impact, the rise of socialism, the Cold War, as well as trade, kinship and traditional practices. |
| HIST 122    | 2       | C,N          | Local History/Field Trips  
First-hand view of historic Seattle. Includes lectures and field trips to historic sites. |
| HIST& 126   | 5       | C,N,S        | World Civilizations I  
Reviews the historic foundations and development of civilizations from 6000 BCE to 1500 CE with emphasis on social, political, cultural and economic aspects. Studies the nature of history and its role as an intellectual and academic discipline. |
| HIST& 127   | 5       | C,N,S        | World Civilizations II  
Reviews the foundations of modern civilization with emphasis on the scientific, industrial and political revolutions that have transformed societies. Emphasis on the period between 1500-1750 and the resulting cross-cultural contact on a global scale. |
| HIST& 128   | 5       | C,N,S        | World Civilizations III  
Study of world civilization during the 19th and 20th centuries. Survey of dramatic events and often-conflicting forces and ideologies affecting contemporary life. Analysis of modern peoples’ solutions to challenges and problems confronting civilization. |
| HIST 130    | 3       | C            | History of Broadcasting  
Examines the development of broadcasting in radio and television. Explores the impact of cultural contributions, show business, news, advertising and telecommunications technology. |
| HIST 131    | 5       | C,N          | Asian-American History  
Covers the experience of Asians in the United States from the 1770s to the present. Emphasizes the impact of exclusionary immigration laws, community responses and the transformative effects of the Civil Rights era. Surveys the experiences of the Chinese, Japanese, Filipino, Korean, Asian Indian and Southeast Asian refugees. |
| HIST 132    | 5       | S            | Pacific Islands History  
Explores the histories and culture of the Pacific Islands region (Melanesia, Micronesia and Polynesia) from early navigators and settlers to the colonial and postcolonial eras of the nineteenth and twentieth centuries. |
| HIST& 136   | 5       | C,N          | United States History I: to 1877  
Reviews U.S. history from the migration of the first Native populations through Reconstruction. Focuses on encounters, territorial expansion and development of political, social, cultural, legal and economic institutions affecting the populations in regions that became the United States. |
HIST& 137 (5) C,N
United States History 2: 1877-Present
Covers U.S. history from the Civil War to the present. Focuses on industrial and urban development, immigration, race, ethnicity and reform, politics, economics, social change and Americans at war.

HIST 138 (5) C,N
Survey of Chicano History
Surveys Chicano and Latino history from the Spanish European background and pre-Columbian civilization of Mexico to the social, economic and political experiences of the Chicano people in the U.S. Emphasis on Mexican history.

HIST 140 (5) C,N,S
Women in American History
Surveys U.S. women's roles, work, status, accomplishments, issues and movements, from the pre-colonial period to the present.

HIST 145 (5) C
Women, Race, and Class
Focuses on the United States and its historical stratification by race, sex and class. Examines the experience of women in their own words, with emphasis on women of color. Examines her story to help in understanding the conflict facing the divided women's movement.

HIST& 146 (5) C,N,S
United States History I: Until 1791
Study of what is now the USA in its formative period, from its Native, European, and African origins to early nationhood. Emphasis on the American Revolution. Prereq: Eligible for English 101 (C).

HIST& 147 (5) C,N,S
United States History II: the 1800s
Examines changes shaping American society in the 1800s: slavery, sectionalism, the Civil War, the westward movement, industrialization and emergence of the United States as a world power. Emphasizes social change and conflicts, including abolitionism, women's rights, labor, immigration, Manifest Destiny, Reconstruction, and the Gilded Age. Prereq: Eligible for English 101 (C)

HIST& 148 (5) C,N,S
United States History III: 1900-Present
Covers an era of conflict, war, uncertain peace, depression and great social changes. Emphasizes historical, economic, social, racial and political events that have formed the modern U.S.

HIST 150 (5) C,N
Multicultural Experiences United States
Focuses on the history of selected communities of people of color in America. Emphasizes a historical approach to understanding contemporary American issues by examining both the lived experiences of specific people of color and the larger history of race and ethnicity in the United States.

HIST 191 (5) C
Biography & American History
Examines the place and role of selected figures in the making of American history, not as a search for the hero or heroine, but as an inquiry into the human potential for affecting society in terms of change and development.

HIST 200 (5) C,N
Critical Issues for 21st Century
Examines current global issues from global perspectives, using materials from diverse history sources and the research tools of the historian.

HIST 208 (5) C,N
Tsars & Soviets: Russian Civilization
Focuses on political, cultural and social life, stressing continuity and change from pre-revolutionary Tsarist Russia to the 1990s.

HIST 210 (5) C,N
The Pacific Century
Study of the transformation of selected Asian Pacific countries and their histories and roles in the modern world. Emphasis on responses to the problems and challenges of economic, political and social development.

HIST 211 (5) S
History of the Middle East
Examines the history of the Middle East (Arab countries, Turkey, Iran and Israel) from the emergence of Islam to the present. Includes cultural, economic and political aspects of history with emphasis on the modern period.

HIST 212 (5) C,N
Vietnam Era
Reviews U.S. history from 1945-1975, with special emphasis on the American War in Vietnam. Explores the Civil Rights movement, the Cold War, the role of media, the rise of the “counter-culture,” and the development of the New Left and the anti-war movement.

HIST& 214 (5) C,N,S
Pacific Northwest History
Investigates the history of the Pacific Northwest from earliest human habitation to the present. Focuses on Washington state and the Puget Sound, contributions by diverse populations, environmental developments, and the region’s changing roles within the context of national and global developments.

HIST 218 (5) C,N
Field Trip: Europe
Take a field trip to Europe to visit historic monuments, cities, castles, museums, churches and other areas relative to studies in the classroom. Average length of experience is three weeks.

HIST& 219 (5) C,N
Native American History
Examines Native American histories from pre-colonial times to the present. Analyzes interactions with non-Natives, especially conflicting cultural, political and economic values.

HIST 221 (5) N
Sports/Social Change 20th Century
Examines the development of sports and its importance for United States culture and society. Focuses on the struggles of athletes who resisted social restrictions, prejudices, gender and racial segregation and the role of sports in creating the diverse American society of the 20th century. Also explores the interplay between sports and immigration, technology and globalization.

HIST 230 (5) N
U.S. Environmental History
From pre-Columbian era to present. Focuses on how different groups of Americans have shaped their environments and on how the environment has shaped cultures, societies and economies in North America from before the arrival of Europeans to the present. Explores how and why attitudes toward the environment have changed. Provides historical context to facilitate understanding debates over environmental issues. Recommended ENGL& 101 eligible.

HIST 231 (5) S
Northwest Environmental History
Examines how different groups of Americans have shaped their environments and how the environment has influenced cultures, societies, and economies in the Pacific Northwest from before Europeans’ arrival to the present. Prereq: Eligibility for ENGL& 101.
HIST 251 (5) N
History of China
Surveys the development of Chinese society from ancient times to the present, including fine arts, literature, religion and thought. Emphasis on the modern period.

HIST 268 (5) C,N
History of Latin America
Covers the development of the Latin American republics, from indigenous European and African foundations through independence and the 20th century. Focuses on social, economic, cultural and political development.

HIST 269 (5) C
History of the Holocaust
Interdisciplinary examination of the context and origins of the Holocaust, using history, film/documentaries and voices from the Holocaust. Emphasizes multiple perspectives, including perpetrators, victims, bystanders, resisters and rescuers. Analysis of modern institutions (nations-states, bureaucracies) and ideologies (anti-Semitism, scientific racism, nationalism) illuminates the meaning, impact and legacies of the Holocaust.

HIST 273 (5) N
Women of American West
Examines women of diverse communities in the Trans-Mississippi West in all their different roles from before European contact to the end of the twentieth century. Explores race, ethnicity, class, labor, family, suffrage, politics, social reform, women's groups, arts and entertainment, religion, cultural values and gender identity.

HIST 298 (1-5) C,N,S
Special Topics/History
Independent study in selected history topics under faculty supervision. Prereq: Permission.

HIST 299 (1-5) C,N
Special Problems/History
Small class format to study and discuss selected topics in history. Prereq: Permission.

Hospitality

HOS 101 (1) C
Customer Service Practicum I
Application of basic customer service theory in a full service restaurant or pastry case. Includes busing, housekeeping, mise en place for both casual and formal restaurant settings; and customer service and sales techniques in bakery counter settings. Prereq: Permission.

HOS 102 (1) C
Customer Service Practicum II
Students refine customer service skills by further practice in a pastry case or full-service restaurant. Includes dining room arrangement, buffet set up, customer service and wait staff duties. In bakery counter settings, students practice product rotation and merchandising. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 103 (1) C
Customer Service Practicum III
Students acquire expertise in customer service by performing opening and closing procedures, training bus staff and using a variety of service techniques including the French, English and Russian styles of table service. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 104 (1) C
Customer Service Practicum IV
Introduction to leadership positions in the front of the house. Includes maitre d’ duties, managing reservations, cashing, tableside food preparation and service in a fine dining setting. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 105 (1) C
Customer Service Desserts Breads
Students assume responsibility for opening/closing, sales, organization and merchandising of product, and training of first-quarter students at a retail pastry case. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 108 (4) C
Dining Room Kitchen Management
Students experience supervisory roles in a variety of management situations in both the front and back of the house. This class also includes tableside cooking and service coordination for other students’ chef of the day projects.

HOS 110 (3) C
Principles of Sanitation
Fundamentals of food service sanitation and its importance to the industry. Includes microorganisms in food spoilage and foodborne illness, ways of limiting microbial contamination and growth, creating a clean and sanitary environment, accident prevention and first aid, Material Safety Data Sheets, sanitation in crisis situations, principles of designing safe and sanitary kitchens and government regulations. Prereq: Admission into the Culinary Arts Program.

HOS 111 (1) C
Intro to Customer Service
Covers the theory and operation of table service in a variety of dining environments. Includes dining room safety, proper service and etiquette, guest interaction, menu knowledge, ticket writing and use of a variety of dining room equipment. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 120 (1) C
Industry Work Experience
Students will work in various hospitality operations for 500 hours. Work experience must be documented and one supervised report will be included. Students will also be required to complete a community service segment as well as a professional service segment. Instructor contact will be one hour per week to discuss work experiences, analyze industry trends, and complete the supervised report.

HOS 122 (1) C
Purchasing & Inventory: Theory
Intro to principles of inventory procedures. Encompasses formal and informal purchasing methods, flow of goods, food buying, legal and ethical purchasing considerations, market analysis, stock rotation, bid specifications, yield and cost comparisons, quality tests and inventory. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 123 (1) C
Food Costing Principles
Explores connection between profit and food cost; discusses product waste and defines costing terms and purchasing units. Use mathematics skills to make conversions, cost bulk and sub-recipes and calculate the selling price of a menu item. Prereq: Successful completion of previous quarter’s Seattle Culinary Academy courses with a minimum GPA of 2.0 in each course.

HOS 124 (2) C
Computerized Menu Planning
Learn various menu layouts and designs. Learn and use proper menu language while using word processing and spreadsheet programs in the creation of menus. Perform weight to volume conversions while learning how to cost out recipes. Prereq: Successful completion of 3rd quarter Culinary Arts Program courses with a minimum GPA of 2.0 in each course.
Food guidelines.

Evaluate dietary intake using current USDA guidelines of evaluating nutrition information. In this class, students will learn how the body uses nutrients, food sources and alternatives for each nutrient and methods of evaluating nutrition information. In evaluating dietary intake use current USDA food guidelines.

HOS 299 (3) S
Independent Project Hospitality/Culinary Arts
To help prepare the student to understand and the theoretical and applied aspects of team hot food competition as outlined by the American Culinary Federation (ACF). The student will be required to participate in weekly team practices and scheduled competitions. The student will work in close supervision with the instructor (coach) through the development of hand skill, menu development and hot food cooking as specified by the ACF competition guidelines. The student will be handling and preparing food items that will be eaten.

Requirements: Concurrent enrollment into the Culinary Arts Program.

Hospitability Management Bachelor of Applied Science

Students must be accepted into the program in order to take these courses.

HMG 301 (3) S
Intro to Hospitality
Survey of the various segments of the hospitality industry, including a brief history and current issues, with an emphasis on service.

HMG 302 (5) S
Hospitality Management
Survey of management theories, functions, methods, and concepts applied to hospitality settings.

HMG 303 (5) S
Hospitality Marketing
Incorporates theory and practice for an actual business, including elements of local store marketing and sales.

HMG 310 (3) S
Hospitality Computer Applications
Explores the technology fundamentals and software applications for business functions and management practices.

HMG 311 (3) S
 Lodging Operations
Study of each hotel department by function and management practices.

HMG 312 (3) S
Legal Issues/Hospitality
Study of liability, dram shop laws, contracts, and innkeeper laws with the purpose of reducing the risk environment for operators.

HMG 313 (3) S
Entrepreneurship
Concepts and issues related to new business ventures, including small businesses.

HMG 314 (5) S
Diversity/Culture
Travel Learn the cultural principles and practices in domestic and international travel and tourism and the impact on hospitality businesses. Emphasizes diversity.

HMG 401 (5) S
Cost Controls
Provides the basics of cost control management in the food and beverage industry within the Hospitality Industry.

HMG 402 (5) S
Hospitality Accounting
Explores the use of management tools for creating and analyzing operational effectiveness in the hospitality industry. In addition to credits, successful completion earns widely recognized national certification from the American Hotel and Lodging Association (AH&LA).

HMG 405 (3) S
Human Resource Management
Policy and practice of human resources utilization: selecting, training, motivating, evaluating and compensating employees; labor relations; EEO legislation.

HMG 411 (3) S
Service Operations Management
Design and management of service systems in hospitality operations; control of customer interaction, personnel activities and inventory.

HMG 412 (5) S
Service Operations Management
Design and management of service systems in hospitality operations; control of customer interaction, personnel activities and inventory.

HMG 420 (3) S
Ethical Leadership
Nature and sources of ethical conflicts and dilemmas leaders and organizations confront in the hospitality industry.

HMG 489 (1) S
Professional Career Development
Preparation for industry employment, including résumé writing, interview skills, professional dress, and business etiquette.

HMG 490 (3) S
Internship Lecture
Tracks student requirement of 1000 hours of industry experiences.

HMG 491 (5) S
Hospitality Management
Capstone Project-based course integrating all components in the curriculum.
Human Development

**HDC 091 (3) N**
**Math for Math-Avoiders**
Identify feelings and barriers to learning math. Learn anxiety management, relaxation techniques, test-anxiety and math study skills.

**HDC 093 (2) N**
**Study Skills**
Increase academic efficiency by learning about motivation, procrastination and memory. Includes note-taking and other skills and strategies for success.

**HDC 100 (1-3) C,N,S**
**Career Plan/Personal Evaluation**
Intro to a systematic approach to help individuals gain a better understanding of self relating to occupational interests and goals. Includes testing and discussions of values, interests and skills.

**HDC 101 (1-3) C,N,S**
**Orientation to College Success**
Assists new students in their adjustment to community college. Includes goal-setting, self-motivation skills, identifying college resources, personal development and general study hints.

**HDC 102 (3) C,S**
**College Survival Skills**
Assists new and struggling students to identify and develop strategies for success in college and life. Includes learning effective study skills and use of college support services.

**HDC 103 (3) C,S**
**Critical Thinking**
Covers methods of comparison, inference and deduction to solve abstract and practical problems. Sequential steps in the evaluation of people, knowledge and values, in which thinking becomes more complex and less categorical and absolute. Designed to start a reflecting process that helps in understanding how cultural beliefs, attitudes and values affect the way we think.

**HDC 106 (1-2) C,S**
**Interview, Resume, Job Hunting**
Focuses on the development of cover letters, résumés, interviewing skills and job-hunting strategies.

**HDC 111 (1) C**
**Math Study Strategies**
Introduces students to study skills to improve math success. Covers reading, note-taking, test-taking, math anxiety and college resources. Most appropriate for students who struggle with math or have not taken a math class for a long time. PREREQ: Test placement at or higher than ENGL 097 or equivalent course completion.

**HDC 112 (1) C**
**Managing Time and College Expectations**
Emphasizes development of effective time management skills and a thorough understanding of classroom and campus expectations, student responsibilities and campus resources to foster success in college.

**HDC 113 (1) C**
**Read and Note Taking Strategies**
Become a self-directed learner for reading and thinking academically and personally. Focuses on the development of practical knowledge and strategies to assist students towards that goal.

**HDC 114 (1) C**
**List and Lecture Note Taking**
Develop ability to take more effective lecture notes through exploration of some well-known note-taking systems. Enhance listening skills and learn to use notes as a study tool.

**HDC 115 (1) C**
**Test Taking Skills**
Strategies for effective test-taking and test anxiety to enhance testing performance and curriculum retention. Includes assessment of personal learning style, test and question types and strategies, study habits and environment, anxiety reduction strategies, resources and planning for testing.

**HDC 119 (3) N,S**
**Stress Management**
Focus on changing stressful situations and personal responses to them. Includes time management, cognitive restructuring, health and wellness and relaxation training.

**HDC 120 (1-5) C,S**
**Leadership, Theory, and Practice**
Explores theory behind visionary, servant and citizen leadership styles. Covers practical leadership skills such as time management, goal-setting and effective communication. Emphasizes involvement in various student activities and programs.

**HDC 121 (2) C**
**Peer Advising**
Focus on communication skills, problem-solving, interviewing techniques and leadership potential. Upon successful completion of the course, students work in the Advising Center, assisting fellow students in understanding degree and transfer requirements and planning their quarterly programs of study.

**HDC 125 (1-3) C,N,S**
**Learning Strategy Math**
Identifies emotional and cognitive barriers to math learning. Covers research-based skills for strengthening math approach and performance. Includes learning styles, anxiety management, relaxation techniques, cognitive behavioral strategies, memory storage and retrieval, and other skills related to math success.

**HDC 190 (1-2) C,N**
**Women in Society**
Examines women's changing social roles—locally, nationally, globally—and their effects on women. Explores how these issues relate to college students facing challenges such as achieving goals, balancing responsibilities, overcoming barriers; and establishing inclusiveness. All genders encouraged to enroll.

**HDC 197 (1-3) C**
**Leadership Practice & Application**
Earn credit for active involvement with student government, campus clubs and committees, or off-campus leadership activities.

**HDC 199 (3) C,S**
**Independent Study: Student Success**
Increase success in college through the application of techniques for problem-solving, planning, and accomplishing goals. Provides a supportive setting and format for monitoring personal accountability, motivation, and achievement. Students strengthen critical thinking and leadership skills. Prereq: Permission.
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<th>Title</th>
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<td>HUM 104</td>
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<td>C,N</td>
<td>Visual Thinking</td>
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<td>HUM 105</td>
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<td>C,N</td>
<td>Intercultural Communication</td>
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<td>HUM 110</td>
<td>5</td>
<td>C,N,S</td>
<td>Intro to American Film</td>
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<td>HUM 112</td>
<td>5</td>
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<td>Responsibilities &amp; Rights of Freedom</td>
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<td>C,N,S</td>
<td>Intro to Asian Cinema</td>
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<td>HUM 125</td>
<td>5</td>
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<td>Hip-Hop Theory &amp; Culture</td>
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<td>HUM 130</td>
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<td>C,N,S</td>
<td>World Cinema</td>
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<td>HUM 135</td>
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<td>N</td>
<td>History of Film</td>
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<td>HUM 150</td>
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<td>HUM 170</td>
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<td>HUM 197</td>
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<tr>
<td>HUM 200</td>
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<td>C,N</td>
<td>Reading the Media</td>
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HUM 210 (5) C,S
Intro to LGBTQ Studies
Introduces key themes and critical frameworks in Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Studies. Topics include histories of sexuality; forms of oppression including heterosexism, homophobia, and transphobia; resistance to oppression; violence against LGBTQ people; queer activism; diverse experiences of sexuality; and representations in literature, art, and popular media. Prereq: Permission.

HUM 261 (5) N
Japanese Civilization
Covers the development of Japan as a society and nation including its origins, history, government, literature, economic institutions, material culture, social organizations and religions.

HUM 270 (5) C
Comics & Graphic Novels
Survey the history of comic books, manga and graphic novels. Study cartoonists’ works as channels of human expression and as evidence of changing and differing cultural conditions. Learn the basics of cartooning. Research self-chosen questions pertaining to “sequential art.”

HUM 289 (1-10) C,N
Chinese Language through Experience
Self-paced experiential education for undergraduates who plan to take advantage of language study opportunities outside the USA, such as living with a family for total language immersion or attending a language school while studying the local cultures. All course requirements must be completed upon return to the USA.

HUM 290 (1-10) C,N
German Language through Experience
See course description listed for HUM 289.

HUM 291 (1-10) C,N
Spanish Language through Experience
See course description listed for HUM 289.

HUM 292 (1-10) C,N
French Language through Experience
See course description listed for HUM 289.

HUM 293 (1-10) C,N
Italian Language through Experience
See course description listed for HUM 289.

HUM 294 (1-5) C,N
Independent Projects
Independent projects based on humanities research. Prereq: Permission.

HUM 295 (1-5) C,N
Practicum in the Humanities
Curriculum practicum for teachers. Prereq: Permission.

HUM 296 (1-5) C,N,S
Independent Projects
Continuation of HUM 295 or independent curriculum project on a different topic than that studied in HUM 295. Prereq: Permission.

HUM 297 (1-10) C,N
Japanese Language through Experience
A self paced experiential education course designed for the undergraduate who plans on taking advantage of the language enhancement opportunities outside the USA, living with a family for total language immersion or attending a language school while at the same time studying the culture of the country.

HUM 298 (1-10) C
Portuguese Language through Experience
See course description listed for HUM 289.

HUM 299 (1-5) C,N,S
Special Problems in Humanities
An independent study/research course in the interdisciplinary field of humanities. Prereq: Permission.

Industrial First Aid
IFS 100 (3) S
Industrial First Aid & Safety
Offered at Duwamish Training Center. Covers mandate of Washington State’s Workman’s Compensation Act to recognize, treat and utilize advanced life support services available to the general public for ill or injured victims. Focuses on safety and prevention of industrial accidents and infectious disease control. Prereq: Covered by Washington State Workman’s Compensation Act.

IFS 102 (1) S
Industrial First Aid
This course covers basic information required to perform first aid measures on suddenly ill or injured persons. It also covers the application of CPR (Cardio Pulmonary Resuscitation).

Industrial Power & Control Technology
See Electronics Technology, page 287.

Industrial Technology
INT 100 (3) S
Manufacturing Processes
Study how machined parts are fabricated. Includes limited hands-on experience on both lathe and milling machines. For Engineering, Drafting and Quality Assurance majors.

INT 101 (3) S
Manufacturing Basics I
Students gain industry-relevant knowledge and applicable topics relevant for work in a diversified manufacturing environment. Topics include but are not limited to: Newton's Law, pressure awareness, energy, force, torque, and gas laws. An introduction to basic electricity and electron flow/charge, circuits, DC & AC, generation and safety practices.

INT 108 (3) S
Intro Blueprint Reading
Learn to identify, read and interpret construction drawings. Emphasis on practical understanding of the processes involved in construction and interpreting them from drawings.

INT 109 (1) S
Flagging and Traffic
Covers basic knowledge, information and awareness of directing traffic and setting up traffic control devices within Washington state. Learn to perform flagging and traffic control job duties safely. Covers the Evergreen Safety Council Flagger Handbook. This course is recognized by the Washington State Traffic Control Oversight Committee. Flagger certification earned in this course is good for three years and is recognized in Oregon and Idaho.

INT 112 (5) S
Tools and Trades
Covers the use of hand tools, shop and manufacturing tools, shop safety and personal protective equipment needed to work in a diversified manufacturing lab. Includes tours to employer sites with the potential of job shadows with current employees. Complete an individual design and manufacturing project using the lab.

INT 115 (3) S
Intro to Lean Manufacturing
Learn English language communication strategies and tools to grow and more fully participate in the implementation of the concepts of lean. Integrates English language learning with the Lean Manufacturing training environment.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 120</td>
<td>1</td>
<td>Applied Hydraulics Manufacturing</td>
</tr>
<tr>
<td>INT 121</td>
<td>2</td>
<td>Applied Pneumatics Manufacturing</td>
</tr>
<tr>
<td>INT 122</td>
<td>2</td>
<td>Intro HVAC Manufacturing</td>
</tr>
<tr>
<td>INT 125</td>
<td>5</td>
<td>Electrical Safety</td>
</tr>
<tr>
<td>INT 130</td>
<td>5</td>
<td>Cranes &amp; Material Handling</td>
</tr>
<tr>
<td>INT 155</td>
<td>5</td>
<td>Pipe Fitting &amp; Plumbing</td>
</tr>
<tr>
<td>INT 160</td>
<td>1-3</td>
<td>OSHA 10</td>
</tr>
<tr>
<td>INT 161</td>
<td>5</td>
<td>Applied Industrial Hygiene</td>
</tr>
<tr>
<td>INT 162</td>
<td>5</td>
<td>Construction Safety</td>
</tr>
<tr>
<td>INT 163</td>
<td>1</td>
<td>Hazcom</td>
</tr>
<tr>
<td>INT 165</td>
<td>3</td>
<td>OSHA 30 General Safety</td>
</tr>
<tr>
<td>INT 170</td>
<td>1-5</td>
<td>Industrial Internship</td>
</tr>
<tr>
<td>INT 175</td>
<td>3</td>
<td>Industrial Ventilation</td>
</tr>
<tr>
<td>INT 180</td>
<td>3</td>
<td>Intro to Composites</td>
</tr>
<tr>
<td>INT 185</td>
<td>3</td>
<td>Accident Investigation</td>
</tr>
<tr>
<td>INT 200</td>
<td>5</td>
<td>Ergonomics</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**Applied Hydraulics Manufacturing**
This is an introductory course designed to prepare students for industry relevant knowledge and applicable topics for work in a diversified manufacturing environment. Students will learn and apply basic principles and explain applications of hydraulic power. The course will be delivered from an applied perspective with an emphasis on understanding the processes involved in checking, troubleshooting, and inspecting hydraulic systems.

**Applied Pneumatics Manufacturing**
This is an introductory course designed to prepare students for industry relevant knowledge and applicable topics for work in a diversified manufacturing environment. Students will learn and apply basic principles and applications of pneumatics. The course will be delivered from an applied perspective with an emphasis on understanding the processes involved in checking, troubleshooting, and inspecting pneumatic power systems.

**Intro HVAC Manufacturing**
This is an introductory course designed to prepare students for industry relevant knowledge and applicable topics for work in a diversified manufacturing environment. Students will learn and apply basic principles and applications of sheet metal construction. The course will be delivered from an applied perspective with an emphasis on demonstrating the processes involved in basic layout and fabrication of sheet metal and HVAC systems.

**Electrical Safety**
Covers Federal OSHA and the State of Washington (WISHA) electrical safety standards for general industry. Includes types of hazards associated with electricity, single and three-phase systems, cord and plug connected equipment, hazardous locations and safety-related work practices, and understanding government regulations. Emphasis on electrical hazard recognition and OSHA inspection procedures.

**Cranes & Material Handling**
Intro to various types of overhead cranes, hoists and powered industrial trucks used in general industry. Covers overhead and gantry cranes, wire rope, slings, crane inspection and maintenance, and operations and maintenance of industrial trucks. Discusses appropriate OSHA and ANSI standards and related requirements.

**Pipe Fitting & Plumbing**
Intro to the selection and use of pipe and tubing for purpose of supplying air, water, oil and electrical wiring to machinery.

**OSHA 10**
Covers both Federal OSHA (29 CFR 1910) and State of Washington (WISHA) general industry standards as they apply to the industrial manufacturing industry. Learn the hazards associated with the manufacturing industry and how to apply industry standards to ensure compliance with the occupational Health and Safety Act of 1970.

**Applied Industrial Hygiene**
Intro to general concepts of industrial hygiene and sampling techniques. Includes common health hazards such as air contaminants and noise, hazard evaluation through screening and sampling and control methods for health hazards, including ventilation and personal protective equipment. Includes laboratories in the use and calibration of industrial hygiene equipment.

**Construction Safety**
Covers both OSHA (20 CFR 1926) and the State of Washington (WISHA) construction standards as they apply to construction industry. Learn how to apply these standards to ensure compliance with the occupational Safety and Health Act of 1970.

**Hazcom**
The goal of this course is to enable students to recognize and understand the required elements of OSHA’s written hazard communication program, including how to identify and evaluate chemical hazards using Safety Data Sheets and chemical labels.

**OSHA 30 General Safety**
Orientation to occupational safety and health standards in general industry. Provides comprehensive safety program knowledge and skills necessary to receive OSHA/MSDS certification and provides complete information on OSHA compliance issues.

**Industrial Internship**
Spend time in the field under the guidance of an instructor and/or mentor to learn about operations, policies, procedures, cultures and behavioral standards in a given private or public sector, paid or non-paid. Meet as a group during the internship. May be used as an internship during ongoing program coursework, upon completing the coursework or both. Prereq: Permission.

**Industrial Ventilation**
Covers principles of industrial ventilation as a means of controlling hazardous air contaminants and both Federal OSHA and the State of Washington (WISHA) ventilation standards as they apply to general industry. Learn the classification of ventilation systems, fundamentals of air flow, make-up air, ventilation systems, surveys and OSHA policy and procedures.

**Accident Investigation**
Covers industrial safety and health techniques used to conduct accident investigations in an industrial setting. Learn the proper techniques to conduct a complete and accurate investigation.

**Ergonomics**
Application of ergonomics principles for the reduction of stresses and strains to the employee’s body. Includes work physiology, vibrations, anthropometry, cumulative trauma disorders, video display terminals, manual lifting and temperature stress. Includes industrial case studies covering analysis and design of work stations and equipment, laboratory sessions in manual lifting and demonstrations of instrumentation and equipment used in the field of ergonomics.
Information Research

INFO 101 (1-5) C,N,S,V
Information Resources
Develops critical thinking in the research process. Examine strategies for locating and using information resources. Emphasizes proficiency using electronic resources and other research tools and retrieval techniques. Explores information policy issues such as copyright, censorship and freedom of information. Prereq: Eligible for ENGL& 101.

INFO 102 (1) C,S
Info in Action Research
Covers the process to get started with a research project and gain a solid understanding of research options. Prereq: Eligible for ENGL& 101.

INFO 103 (1) C,S
Info in Action Books Media
Intro to the purpose, structure, and uses of books, ebooks and media as sources of in-depth or historical information on a subject. Covers use of local and regional library catalogs to find books, and strategies to evaluate them. Prereq: Eligible for ENGL& 101.

INFO 104 (1) C,S
Info in Action Research
Explores periodical databases for research purposes, including basic database structure and the variety of databases available. Focuses on research strategies and database features to retrieve and evaluate articles on a topic. Prereq: Eligible for ENGL& 101.

INFO 105 (1) C,S
Info in Action Scholarly
Intro to scholarly communications that form the basis of new information, including where these communications are published, how to search periodicals databases for scholarly articles, and how to evaluate and cite sources for academic research. Prereq: Eligible for ENGL& 101.

INFO 106 (1) C,S
Info in Action Web Research
Examines the Internet as a conduit for research information from a wide range of sources. Discover strategies for uncovering difficult to find -deep web- resources and evaluating content from multiple sources. Prereq: Eligible for ENGL& 101.

INFO 110 (1-3) C,N,S
Information Age Issues
Develops strategies to locate, evaluate and use information safely and ethically. Includes extra language support for non-native English speakers. Prereq: Eligible for ENGL& 101

INFO 180 (5) C,S
Research for 21st Century
Develops a framework for research in the online environment and helps build skills and techniques for success as online learners through a quarter-long research project on global issues. Prereq: Eligibility for English 101.

INFO 300 (1-5) N
Information Literacy for Undergraduate Research
Explores strategies, topics, and concepts to develop research practices for Bachelor’s level study. Focuses on in-depth investigation of the organization, retrieval, and evaluation of professional and discipline-specific digital and print information sources. Prereq: Enrollment in a Seattle Colleges B.A.S. program and completion of ENGL& 101.

Information Technology

Also see Computer Science, Computing Technology.

NOTE: Eligibility for ENGL& 101 is recommended.

Most Information Technology courses require a computer lab fee. Contact the division office for specific fee information.

BCT 111 (2) V
Computer Lit App Fund
Introduction to computer use, concepts, terminology, word processing, presentation and database software. Practical experience in business skills relative to the use of applications, the Internet, email, scheduling, contact management, directory and file management and database software. Prereq: Permission.

BCT 130 (4) V
Word Processing
Introduces the word processing cycle as used in a work setting. Microsoft Word is used to create, format, and edit documents: memos, form letters, tables, and reports. Topics include styles, templates, mail merging, graphics, and WordArt. Prereq: BOS 103 or Permission.

BOS 103 (2) V
Keyboarding
Development of touch keyboarding skills. Emphasis on proper technique, strategies, practice drills, and timed exercises to improve speed and accuracy. Prereq: Permission.

IT 102 (5) N
Intro to Programming
Gain a basic understanding of the programming field. Learn to solve problems through programming logic and design and use efficient troubleshooting techniques to find and correct errors.

IT 103 (5) N
Intro to Database Use Design
Learn Microsoft Access and SQL, the design, creation and use of databases and strategies for keeping data current, accurate and secure. Prereq: IT 100, or EET 131 and IT 101, 102.

IT 109 (1) N
ITIL Foundation Preparation
Students will learn how IT services are managed so that they meet and exceed business expectations. Prepares students for the ITIL Foundations Certificate exam. Prereq: EET 131 or instructor permission.

IT 111 (5) N
Internet and Web Authoring
Survey of basic Internet services and protocols and a comprehensive intro to web development with HTML5 and CSS3. Also emphasizes web page design and website set up and maintenance.
IT 120 (5) N
NET Essentials–CompTIA +
Understand core protocols, devices, and technologies for wired and wireless networking. Intro to current networking technology for local area networks (LANs), wide area networks (WANs) and the Internet. Introduces key concepts and practices for network security, management, and troubleshooting. Prereq: EET 131 (may be taken concurrently) or permission.

IT 122 (5) N
Network OS 1
Windows OS Provides the knowledge and skills to install, configure, and secure Microsoft Windows on stand-alone and client computers that are part of a workgroup or domain. Prereq: EET 131 or permission.

IT 124 (5) N
Network OS 2 Windows Server
For those new to Microsoft Windows Server and responsible for installing, configuring, securing, managing and supporting a network infrastructure using Microsoft Windows Server. Provides knowledge and skills for designing a Microsoft Windows Active Directory Services infrastructure. Prereq: IT 122 or permission.

IT 125 (5) N
Using SQL and SQL Server
Provides instruction in techniques for creating, modifying, deleting and querying databases using SQL. Focuses on designing and understanding SQL queries using Microsoft SQL Server, although technique can also be used with other relational DBMS like MySQL, Oracle and Access. Recommended: Work experience or class (such as IT 101) using a DBMS.

IT 126 (5) N
Network OS 3 Windows NET
For those new to Microsoft Windows Server and responsible for installing, configuring, securing, managing and supporting a network infrastructure using Microsoft Windows Server. Provides knowledge and skills for designing a Microsoft Windows Active Directory Services infrastructure. Prereq: IT 122 or permission.

IT 128 (5) N
Network OS 4 Windows Act
Learn to plan, implement, secure, and manage Microsoft Windows Directory Services in an enterprise environment. Prereq: IT 126 or permission.

IT 135 (5) N
Introduction to UNIX
Intro to the UNIX operating system using Linux. Includes the fundamental UNIX Commands, the UNIX file system, vi editor, UNIX shells and shell programming. Strongly recommended: Computer and Windows Operating System experience.

IT 138 (5) N
UNIX for Network Administration
Intermediate course. Covers the organization of UNIX-based hardware components and software tools used by the host administrator to control access, tune the system and account for system resources used. Focuses on UNIX tools, network schedulers, security, remote access, performance monitoring and networking aspects of UNIX. Includes multi-user, multi-tasking, time-sharing networked communications and setup and maintenance of an Internet server. Prereq: IT 135 or permission.

IT 140 (5) N
UNIX Shell Scripts Perl
Includes UNIX host administration with shell scripts and the use of Perl for administrative functions, basic Internet operations on UNIX systems. Focuses on data collection on the World Wide Web. Prereq: IT 135 or permission.

IT 142 (5) N
Network Management – Cisco I
Examines current and emerging networking technology for future employment and/or further education. Content standards based on current industry standards. Examines safety, networking, network terminology and protocols, LANs, OSI model, cabling, cabling tools, IP addressing and network standards. Emphasis on decision-making and problem-solving. Prereq: EET 131, IT 122 (may be taken concurrently) or permission.

IT 144 (5) N
Network Management – Cisco II
Covers safety, networking, network protocols, LANs, WANs, Ethernet, LAN switching, Router IOS, TCP/IP Addressing, Router configuration, dynamic routing, static routing, and the network administrator’s role and function. Includes decision-making and problem-solving techniques for networking. Prereq: IT 142 or instructor permission.

IT 146 (5) N
Network Management – Cisco III
Continuation of IT 144. Covers configuring LANs, Novell Networks, Internet-work Packet Exchange (IPX) routing, Interior Gateway Routing Protocol (IGRP), Wide Area Networks (WANs) and network troubleshooting, Covers Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and frame relay design, configuration and maintenance. Prereq: IT 142, IT 144 or permission.

IT 150 (5) N
IT Security +
Provides both Windows and UNIX Network Administrators an awareness of security-related issues and the essential skills needed to implement security in such networks. First course in the Security Certified Network Professional Exam. Prereq: IT 122 and IT 138 or permission.

IT 220 (5) N
Desktop Management Virtualization
Intermediate Level
Covers desktop image optimization, image building and deployment, group policy application, DHCP fundamentals, virtualization and cloud computing, virtualization software, and desktop image deployment tools. Prereq: IT 126.

IT 290 (5) N
Independent Study/Internship
Provides advanced students with research opportunities or gain experience in computer information systems. Variable credits. Prereq: Advanced standing and permission.

IT 296 (5) N
Network Tech Internship
On-the-job training. No compensation is expected. The student is placed with a manufacturer, service company or other work site upon the approval of the instructor, although students may state a preference and/or look for a placement themselves.

IT 298 (1-5) N
Special Projects for LAN
Study of topics considered appropriate by the instructor and/or faculty. Course content, format and projects vary. Topics may include Microsoft Back Office—IIS, Proxy Server, Site Server, Linux system installation and support of various servers.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITC 102</td>
<td>3</td>
<td>C,V</td>
<td>Intro to Computer System&lt;br&gt;Intro to computers and information systems, including hardware, software, data organization, data communications, systems development and the evolving role of computers in society.</td>
</tr>
<tr>
<td>ITC 110</td>
<td>5</td>
<td>C</td>
<td>Programming Fundamentals&lt;br&gt;Intro to basic computing concepts such as Input-Processing-Output, control structures, arrays, structured programming and object oriented programming using C#.NET as an example language. Prereq: BTM 111 or equivalent and eligible for MATH 098.</td>
</tr>
<tr>
<td>ITC 115</td>
<td>5</td>
<td>C</td>
<td>Object Oriented Programming&lt;br&gt;Intro to object oriented programming, structures and concepts with Java. Intro to the C++ language Create objects and understand how they relate to classes. Develop C++ code for practical applications. Prereq: ITC 110 with 2.0 or higher.</td>
</tr>
<tr>
<td>ITC 134</td>
<td>5</td>
<td>C,V</td>
<td>Computer Operating System&lt;br&gt;Intro to concepts of processes, file systems and structures, software and hardware management, security and user authentication, resource allocation and memory management. Uses WINDOWS, DOS and LINUX operating systems. Prereq: BTM 111; ITC 140 with 2.0 or higher as prereq or coreq or permission.</td>
</tr>
<tr>
<td>ITC 136</td>
<td>5</td>
<td>C</td>
<td>UNIX Operating System&lt;br&gt;Intro to the Linux/UNIX client operating system, including the fundamental Linux/UNIX commands in both the command line interface and graphics user interface. Not a Server Administration class. Prereq: BTM 111 with 2.0 or better, or previous computer work, or permission.</td>
</tr>
<tr>
<td>ITC 140</td>
<td>5</td>
<td>C,V</td>
<td>Intro to Computer Hardware&lt;br&gt;Provides basic understanding of various hardware components, including installation and configuration. Learn how software interacts with and controls the computer’s hardware elements. Emphasizes analytical logic, troubleshooting skills and basic networking concepts. Prereq: BTM 111 or ITC 102 or equivalent.</td>
</tr>
<tr>
<td>ITC 151</td>
<td>5</td>
<td>C</td>
<td>Intro Network Security&lt;br&gt;Intro to network security, building and administering secure network architectures. Covers firewalls, vulnerability scanners, encryption, risk monitoring and assessment tools, digital certificates, authentication and network vulnerabilities. Security Lab uses wired desktop systems and wireless PDAs to Linux, Macintosh and Windows systems used by small and medium businesses. Prereq: NET 120 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>ITC 162</td>
<td>5</td>
<td>C</td>
<td>Intro to Mobile Development&lt;br&gt;Covers advanced Object Programming concepts and their application in a mobile environment. Includes OOP inheritance, interfaces, when to refactor, and good design principles. Learn how to design for large projects and to work in teams. Create a simple mobile application. Prereq: ITC 115 with a 2.0 or higher.</td>
</tr>
<tr>
<td>ITC 172</td>
<td>5</td>
<td>C</td>
<td>NET Web Programming&lt;br&gt;Intro to object-oriented, event-driven programming using Visual Basic (VB) in the Visual Studio.NET environment. Create Windows applications and write Windows interfaces to existing applications. Study of Visual Basic forms and tools and writing VB code modules, processing and functions. Intro to web applications. Prereq: ITC 110 or MIC 110.</td>
</tr>
<tr>
<td>ITC 200</td>
<td>5</td>
<td>C</td>
<td>Advanced Web Development&lt;br&gt;Provides hands-on experience working on a web team with real-world client projects. Offered with WEB 210. ITC 210 students provide the main database and programming skills while WEB 210 students provide the main design and development skills. Prereq: WEB 170 with 2.0 or higher.</td>
</tr>
<tr>
<td>ITC 220</td>
<td>5</td>
<td>C</td>
<td>Database Development&lt;br&gt;Overview of database theory and systems. Work with relational databases, simple ADI, SQL and XML. Prereq: BTM 111 and either MIC 110 or permission.</td>
</tr>
<tr>
<td>ITC 222</td>
<td>5</td>
<td>C</td>
<td>SQL&lt;br&gt;Intro to the use of Structured Query language (SQL) to access and summarize database information, create and alter database objects, set constraints and create views. Intro to SQL embedded in programming environments such as ASP or CGI, or Net. Learn to use SQL to create and manage databases on a relational database management system. Prereq: ITC 220 or permission.</td>
</tr>
<tr>
<td>ITC 226</td>
<td>5</td>
<td>C</td>
<td>Database Administration&lt;br&gt;Provides practice with administrative activities, security and backup on a Relational Database Management System, using Administrative SQL and other tools offered by the Relational Database Management System. Prereq: ITC 222.</td>
</tr>
<tr>
<td>ITC 240</td>
<td>5</td>
<td>C</td>
<td>Web Applications 1&lt;br&gt;Covers the fundamentals of programming using a server side scripting language such as PHP. Learn basic programming skills such as Variables, Control Structures, and Arrays, how to elegantly incorporate their scripts into their websites and gather data from HTML forms.</td>
</tr>
<tr>
<td>ITC 250</td>
<td>5</td>
<td>C</td>
<td>Web Applications 2&lt;br&gt;Covers more advanced server-side scripting. Learn how to collect data from forms and to store and retrieve data from a database. Emphasizes proper coding conventions, security, and code organization. Prereq: ITC 240 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>ITC 255</td>
<td>5</td>
<td>C</td>
<td>Systems Analysis&lt;br&gt;Identify when a system needs to be upgraded or replaced. Analyze system components and requirements, charting process flow and data structures, determining feasibilities and providing alternate solutions. Prereq: BTM 111 with 2.0 or higher or SAM Challenge test out Recommended: ITC 110 or CSC 110.</td>
</tr>
</tbody>
</table>
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
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<tr>
<td>ITC 260</td>
<td>Web Applications 3</td>
<td>(5)</td>
<td>C</td>
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<tr>
<td>ITC 285</td>
<td>Capstone Project Class</td>
<td>(5)</td>
<td>C</td>
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<tr>
<td>MIC 101</td>
<td>Intro to Micro Comp Applications</td>
<td>(4)</td>
<td>C,V</td>
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<tr>
<td>MIC 175</td>
<td>Computer User Support</td>
<td>(4)</td>
<td>C,V</td>
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<tr>
<td>WEB 105</td>
<td>Working on a Web Project</td>
<td>(3)</td>
<td>C</td>
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<tr>
<td>WEB 110</td>
<td>Web Authoring I</td>
<td>(4)</td>
<td>C</td>
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<tr>
<td>WEB 112</td>
<td>Typography</td>
<td>(3)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 114</td>
<td>Photoshop for the Web</td>
<td>(3)</td>
<td>C</td>
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<tr>
<td>WEB 120</td>
<td>Web Authoring II</td>
<td>(4)</td>
<td>C</td>
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<td>WEB 122</td>
<td>Web Authoring III</td>
<td>(4)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 130</td>
<td>Web Authoring IV</td>
<td>(3)</td>
<td>C</td>
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<tr>
<td>WEB 150</td>
<td>Intro to Javascript</td>
<td>(4)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 160</td>
<td>Writing for the Web</td>
<td>(2)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 170</td>
<td>Content Management System</td>
<td>(4)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 200</td>
<td>Theory of Web Design</td>
<td>(4)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 202</td>
<td>User Centered Web Design</td>
<td>(4)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 205</td>
<td>Web Career Strategies</td>
<td>(2)</td>
<td>C</td>
</tr>
<tr>
<td>WEB 210</td>
<td>Advanced Web Design</td>
<td>(5)</td>
<td>C</td>
</tr>
<tr>
<td>ITC 240</td>
<td>Institutional Training Development</td>
<td>(0)</td>
<td>C</td>
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</tbody>
</table>

### Information Technology Web/Information Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEB 105</td>
<td>Working on a Web Project</td>
<td>(3)</td>
<td>C</td>
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</tbody>
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### Institutional Training Development

<table>
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<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITC 240</td>
<td>Institutional Training Development</td>
<td>(0)</td>
<td>C</td>
</tr>
</tbody>
</table>

**ITD 105 (Computer Training)**

Contractual course training students in computer basics including MS Word, spreadsheets, MS Excel, and the Internet.
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN ........ Watch Technology
NAME TO PREFIX
Watch Technology ............ HIN

Common Course Numbering explanation is on page 224.

International Business
Bachelor of Applied Science

IBN courses under 300 may be taken for lower division credit toward certificates or degrees. Students must be enrolled in Bachelor of Applied Science in International Business to take 300 and above courses.

IBN 203 (3) N
International Trade: Export
Learn to conduct a successful exporting operation. Study research and planning, market strategy, finance, legal considerations and logistics of entering foreign markets. Develop skills and knowledge in practical aspects of exporting products and services.

IBN 205 (3) N
International Trade: Import
Learn to conduct a successful importing operation. Study financing, pricing, logistics and U.S. customs regulations. Develop skills and knowledge in practical aspects of importing products through case study analysis.

IBN 210 (5) N
Cultural Impact in International Business
Designed to heighten cultural awareness through understanding how relationships impact successful business operations. Covers political environments, cultural and ethnic understanding, religion, history, trade patterns, customs, and cross-cultural communication. Focus on Asian countries of the Pacific Rim.

IBN 225 (3) N
Global Logistics
Intro to international logistics and logistics management. Emphasizes the decision-making process, including the role of logistics in the firm and in the international environment; sourcing materials and manufacturing; product distribution, inventory/warehousing issues; distribution alternatives, transportation, financial and organizational considerations; and the impact of government-imposed laws, treaties and policies.

IBN 301 (5) N
International Management
Covers fundamentals of the global business environment: varying political, economic, and legal environments; globalization; international organizations; regional integration. Explores the cross-cultural environment, the dimensions of culture, cross-cultural communication, motivation, leadership, and negotiation. Includes global human resources.

IBN 302 (5) N
International Marketing
Covers fundamentals of marketing within a global context, including the impact of economic, cultural, political, legal and other environmental influences on international marketing. Analyze international cases, considering product, pricing, placement, and promotion.

IBN 303 (3) N
Ethics and International Business
Increase awareness of ethical issues of international corporate decision-making. Learn business strategies and frameworks needed to analyze and resolve ethical problems. Explore corporate social responsibility and moral decision-making processes.

IBN 310 (5) N
Operations Management
Intro to processes that convert resources into goods and services and extend these to suppliers, distributors, and customers. Overview of operations, including operations strategy, system and process design, lean manufacturing, continuous improvement, global supply chain, production and workforce planning, inventory and materials management, and quality improvement.

IBN 311 (3) N
International Business Law
Examines common legal issues and risks that affect business transactions in the global marketplace. Learn the international legal framework; methods of resolving disputes including litigation, arbitration, and mediation; joint ventures; trade agreements; sales contracts; intellectual property issues; labor matters; and risks of foreign direct investment.

IBN 320 (5) N
International Finance
Focuses on the international financial environment. Study the risks of doing business in a global environment and tools available to minimize those risks. Examines foreign exchange and political risks, working capital management, long-term investments, financing and accounting controls. Familiarity with spreadsheets is needed.

IBN 350 (7) N
International Business Practicum
Gain practical experience in a foreign culture through an educational excursion abroad, working or volunteering in a non-profit or business that primarily communicates in that language, or other means.

IBN 401 (3) N
International Project Management
This course focuses on project management using the traditional approach of planning, scheduling, monitoring, and control within the broader global context. The course will cover the basic methodologies and tools of the project manager, the technical and management challenges he/she may face, and the strategic perspective of project management within the global environment. Prerequisite: Acceptance into the International Business B.A.S. program.

IBN 402 (5) N
Management of Information Systems
Overview of how businesses use information technologies and systems to achieve company objectives and attain competitive advantage in operations, product development, decision-making, and customer relations. Learn IT issues facing organizations: infrastructure, security, business intelligence, networking, the Internet, telecom, wireless, enterprise applications, e-commerce, and ethics.

IBN 410 (3) N
International Entrepreneurship
Overview of the international entrepreneurial process, examination of the marketplace and successful business strategies. Addresses product or service selection, selling and marketing strategies, and sources of information and assistance.

IBN 420 (5) N
Global Business Strategy
This course examines the fundamentals of business strategy development within a global context. Students learn to consider the impact of external environmental influences together with the constraints of an enterprise’s internal strengths and weaknesses to develop a global strategy that competes in a competitive business environment.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBN 490</td>
<td>2</td>
<td>N</td>
<td>Research Skills for IBN</td>
</tr>
<tr>
<td>ISP 220</td>
<td>5</td>
<td>N</td>
<td>World Hunger</td>
</tr>
<tr>
<td>ISP 261</td>
<td>5</td>
<td>N</td>
<td>Japanese Civilization</td>
</tr>
<tr>
<td>ISP 261</td>
<td>5</td>
<td>N</td>
<td>International Coop Education</td>
</tr>
<tr>
<td>ISP 205</td>
<td>5</td>
<td>C,N</td>
<td>Women in the Global Context</td>
</tr>
<tr>
<td>ITL 197</td>
<td>5</td>
<td>C</td>
<td>International Coop Education</td>
</tr>
<tr>
<td>LHO 108</td>
<td>3</td>
<td>S</td>
<td>Weed Identification Management</td>
</tr>
<tr>
<td>LHO 109</td>
<td>3</td>
<td>S</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>LHO 111</td>
<td>3</td>
<td>S</td>
<td>Greenhouse Operations</td>
</tr>
<tr>
<td>LHO 112</td>
<td>3</td>
<td>S</td>
<td>Nursery Operations</td>
</tr>
<tr>
<td>LHO 115</td>
<td>3</td>
<td>S</td>
<td>Fall Plant Identification</td>
</tr>
<tr>
<td>LHO 116</td>
<td>3</td>
<td>S</td>
<td>Winter Plant Identification</td>
</tr>
<tr>
<td>LHO 117</td>
<td>3</td>
<td>S</td>
<td>Spring Plant Identification</td>
</tr>
<tr>
<td>LHO 100</td>
<td>1</td>
<td>S</td>
<td>Careers in Horticulture</td>
</tr>
</tbody>
</table>

**International Student Development**

**Orientation to American College**

Prereq: Advisor permission.

**International Studies**

**Making of 21st Century**

Studies international political economy through facets/events of post-World War II era. Covers postwar changes leading to the creation of international financial institutions, rise of MNCs, emergence of the United States as a major power, globalization of production debt crisis and structural adjustment policies. Emphasis on Asian Pacific, South Asian, Sub-Saharan African and Latin American countries.

**Women in the Global Context**

An introduction to the organization, retrieval and evaluation of electronic and print information sources. Overview of library classification systems, scholarly resources, and the concepts underlying the research process. Universal research techniques will be explored through the use of international business-specific information resources and topics. Prereq: acceptance into the IB B.A.S. program/cohort.

**Italian**

See Languages & Literature, page 318.

**Japanese**

See Languages & Literature, page 318.

**Journalism**

Internship on a professional publication through arrangement between editor and journalism instructor, or management position on college publication. Prereq: CMST&102 or JRN 101 and 104, plus permission.

**Landscape Horticulture**

**Careers in Horticulture**

Explore career opportunities in horticulture, landscaping, urban food production, and sustainable land care. Learn about work requirements, training requirements, trade organizations, professional certification, continuing education opportunities, and related four-year degree programs. Create a personal career-development plan.
LHO 119 (3) S
Native Plants for Northwest Landscape
Explore the successful use of native plants in landscapes: plant identification and culture, native plants in urban landscapes, native plant revegetation and plant ecology. Prereq: LHO 150.

LHO 120 (3) S
Perennial Plant Identification
Identify and properly use plants adapted to and utilized for annual perennial plantings in the Pacific Northwest. Field trips to established gardens. Recommended: LHO 150. Prereq: LHO 150.

LHO 122 (5) S
Landscape Design I
Gain a conceptual foundation in manual drafting and design, an overview of tools, elements, computer assisted design software, and the process for residential landscape design. Covers horticultural graphics, survey, measurement, analysis of site and environmental field conditions, and development of an accurate scaled plot plan and base map.

LHO 126 (5) S
Landscape Design II
Information on how to complete the residential design process from the preliminary diagram to the final conceptual planting plan including CAD and the digital design process. Emphasis on functional, aesthetic, spatial, and ecological use of plants and trees to achieve a predetermined style, theme, or user response. Prereq: LHO 122 with 2.0 or higher or permission.

LHO 135 (3) S
Drain/Irrigation Systems
Study basic principles of hydraulics, drainage and irrigation systems, irrigation fixtures and apparatus.

LHO 137 (3) S
Landscape Management
Covers sustainable maintenance practices, lawn management, tool and small equipment use, safety, landscape management plans, and the impact of design on maintenance requirements.

LHO 140 (3) S
Intro to Arboriculture
Intro to the current science and practice of managing trees in urban landscapes. Prepare for the ISA Certified Arborists Examination.

LHO 150 (3) S
Horticulture Science
Discover the basic principles of plant anatomy and physiology, growth and development, adaptations, and plant-soil-water relations. Exploration of ecology, people, plants and the environment as they relate to horticulture.

LHO 152 (3) S
Soils
Uncover the mysteries of soil through in-depth study of soil properties, management and conservation. Explore the plant-soil-water relationship, urban soils, assessment of soils on site, soil fertility and plant nutrition.

LHO 155 (3) S
Pruning
Covers the art and science of pruning in theory and practice. Develop skill at pruning broadleaf trees and shrubs, conifers, fruit trees, vines and roses.

LHO 160 (3) S
Garden Renovation
Learn by renovating an existing garden. Includes site assessment, developing a timeline, removal and handling of materials, sourcing new plant material, installation and final evaluation of the process.

LHO 189 (3) S
Intro to Landscape Construction
Introduction to the standards and procedures of the landscape construction industry. Covers the proper and accepted methods of a multitude of landscape installations. Includes construction specifications, project sequencing and safety practices.

LHO 197 (2-8) S
Landscape Horticulture Internship
Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training. Orientation to Internships required prior to registration. Prereq: Permission.

LHO 210 (3) S
Plant Problem Diagnostic
Diagnose and manage plant problems: insect, disease, cultural and environmental maladies. Stresses a total plant health care approach that utilizes cultural, biological and chemical strategies. Prereq: LHO 109 or permission.

LHO 215 (3) S
Plant Propagation
Covers the art and science of plant propagation by seed, cuttings, division and grafting. Includes field trips to plant production facilities. Recommended: LHO 111 or permission.

LHO 217 (3) S
Advanced Plant Propagation

LHO 236 (5) S
Advanced Irrigation System Design
In-depth study of systems and their relationship to our environment focusing on irrigation technology and theory and practical application. Prereq: LHO 135 or permission.

LHO 237 (5) S
Advanced Irrigation Diagnostics & Repair
Analyze mechanical, electrical and hydraulic systems. Learn to evaluate a system's efficiency and to troubleshoot, locate and repair problems of improper design and installation, and malfunctions of equipment and parts. Emphasis on turf and landscape areas. Prereq: LHO 135 & 235 or permission.

LHO 238 (3) S
Maintenance Estimating/Bidding
Covers estimating material cost and quantity for bidding individual jobs and writing annual contracts. Includes design of efficient residential and commercial landscapes, as well as specifications and maintenance practices. Includes business operations. Prereq: LHO 137 or permission.

LHO 240 (3) S
Ecological Restoration
Explore the field of ecological, restoration as it applies to horticulturists attempting to repair damaged landscapes. This class will investigate the science and practice of restoration through meetings with restoration practitioners, visits to restoration sites, reading and discussion, and service learning.

LHO 241 (3) S
Ecological Restoration
Study the recovery of degraded, damaged, or destroyed ecosystems. Learn to plan, implement, maintain, and evaluate the success of ecological restoration projects. Includes planning and implementing a restoration project near campus. Prereq: LHO 240 or permission.

LHO 242 (3) S
Intro to Permaculture
Explore permaculture and sustainable land use design based on ecological principles. Covers ecosystems, soils, water catchment and conservation, the food forest, and zones. Learn to apply these concepts and methods.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHO 255</td>
<td>Edible Trees, Shrubs, and Vines</td>
<td>Explore plants and their uses for edible, medicinal and health purposes. Covers selection, culture, maintenance and siting of plants in the landscape, home and community gardens. Includes site visits and service learning.</td>
<td></td>
</tr>
<tr>
<td>LHO 263</td>
<td>Landscape Design III</td>
<td>Increase sophistication and usage of plant selection, placement, planting patterns, and structures. Develop products using digital applications for individual portfolios. Discuss and practice on-site consulting and other professional services.</td>
<td>Prereq: LHO 126 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>LHO 265</td>
<td>Landscape Contracts &amp; Specifications</td>
<td>Covers practical application of bidding and estimating procedures and techniques within the landscape industry, as well as industry opportunities and standards.</td>
<td>Prereq: LHO 189 or permission.</td>
</tr>
<tr>
<td>LHO 267</td>
<td>Dynascape Landscape Design</td>
<td>Use Dynascape professional CAD software as a design tool. Learn to design landscapes, generate planting plans and reports, design irrigation, make estimates and bids, track supplier and purchasing information, and customize data libraries and client reports.</td>
<td></td>
</tr>
<tr>
<td>LHO 272</td>
<td>Construction Projects – Fall</td>
<td>Application of standard trade procedures and techniques for residential landscaping. Covers care and safe use of tools used in garden structures and in trade.</td>
<td>Prereq: LHO 189 with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>LHO 273</td>
<td>Construction Projects – Spring</td>
<td>Application of standard trade procedures/techniques for residential landscaping. Covers care and safe use of tools used in garden structures and in trade.</td>
<td>Prereq: LHO 189 or permission.</td>
</tr>
<tr>
<td>LHO 299</td>
<td>Special Topics</td>
<td>Special individual or group study topic in the landscape horticulture field.</td>
<td>Prereq: Permission.</td>
</tr>
<tr>
<td>ASL 120</td>
<td>Intro to Deaf Studies</td>
<td>Overview of the treatment and psychological aspects of Deafness; history and education of Deaf people; and Deaf culture.</td>
<td></td>
</tr>
<tr>
<td>ASL 121</td>
<td>American Sign Language I</td>
<td>Introduction to American Sign Language (ASL), the visual language created by Deaf people. Study of the basic vocabulary, grammar, functions of the language; introduction to the culture of the Deaf community.</td>
<td>Prereq: Eligibility for English 101</td>
</tr>
<tr>
<td>ASL 122</td>
<td>American Sign Language II</td>
<td>Continuation of ASL 121. The focus of the course is to develop ASL grammar skills, increase vocabulary, and continue to gain a deeper knowledge and appreciation of Deaf culture. At Central, may be used as an elective to fulfill requirements for the Associate of Arts with Emphasis in Deaf Studies.</td>
<td>Prereq: Eligibility for English 101, Successful completion of ASL 121 with a grade of 2.0 or higher.</td>
</tr>
<tr>
<td>ASL 123</td>
<td>American Sign Language III</td>
<td>Continuation of ASL 122 with focus on certain grammatical features such as spatialization, verb aspect and inflection, with non-manual components. Intensive work in vocabulary development, and continued study of Deaf culture. At Central, may be used as an elective to fulfill requirements for the Associate of Arts with Emphasis in Deaf Studies.</td>
<td>Prereq: Eligibility for English 101, Successful completion of ASL 122 with a grade of 2.0 or higher.</td>
</tr>
<tr>
<td>ASL&amp; 120</td>
<td>American Sign Language IV</td>
<td>Emphasis on expressive skills development and ASL fluency. Attention to the correct formation of signs, movement, rhythm, phrasing, linking, and clarity, intensive vocabulary building and proficiency in ASL grammar.</td>
<td>Prereq: ASL 223 with a 2.0 or higher or permission.</td>
</tr>
<tr>
<td>ASL&amp; 122</td>
<td>American Sign Language V</td>
<td>Continued development of receptive and expressive skills. Produce/receive narratives at a near-native level and decrease dependency on English syntax structures. Prereq: ASL 221 with a 2.0 or higher or permission.</td>
<td></td>
</tr>
<tr>
<td>ASL&amp; 123</td>
<td>American Sign Language VI</td>
<td>Continue vocabulary development and participate in most formal and informal conversations on general topics. At this level signing errors seldom interfere with understanding and rarely disturb native signers. Prereq: ASL 222 with a 2.0 or higher or permission.</td>
<td></td>
</tr>
<tr>
<td>ASL 299</td>
<td>Independent Study: ASL</td>
<td>Independent study of selected topic(s) in ASL: A mutually desirable research project is assigned by faculty.</td>
<td></td>
</tr>
<tr>
<td>SPS 201</td>
<td>Introduction to Audiology</td>
<td>Understand the process of hearing, interruptions in the normal hearing process, remediations options. Learn issues of the deaf community within the larger population of hearing-impaired individuals.</td>
<td></td>
</tr>
</tbody>
</table>
Arabic

**ARAB 101 (5) C**

Arabic I

Modern Standard Arabic (MSA) language within the cultural context of Arabic-speaking people. Provides students with elementary Arabic communication skills of listening, speaking, reading, and writing. No prior knowledge of Arabic required. Prereq: English 101 eligibility.

**ARAB 102 (5) C**

Arabic II

Continuation of 101. Emphasizes speaking skills on topics such as Arabic names and titles, family and friends, daily life activities, and cultural topics. Begin learning written language and grammar. Prereq: ARAB 101 or permission.

**ARAB 103 (5) C**

Arabic III

This course begins with a review of the material taught in Arabic II. Arabic III continues with a comprehensive and complex focus on Arabic speaking, reading, and writing skills. Students will be able to relay personal experiences using complex grammar and will gain a thorough understanding of Arabic culture.

Chinese

**CHIN& 121 (5) C,N**

Chinese I

Intro to the standard language, emphasizing correct pronunciation and basic structure, with oral practice and structure skills. Emphasizes on systematic study of the phonetics (Pinyin) and basic grammar. Covers everyday expressions and vocabulary, and background on history, culture and customs. Intended for students who have not previously studied Chinese. Recommended: Eligibility for ENGL 101 (C).

**CHIN& 122 (5) C,N**

Chinese II

Continuation of CHIN& 121. Prereq: CHIN& 121 or permission.

**CHIN& 123 (5) C,N**

Chinese III

Continuation of CHIN& 122. Prereq: CHIN& 122 or permission.

**CHIN& 221 (5) C,N**

Chinese IV

Continuation of CHIN& 123. Emphasizes using Chinese language in speaking, listening, reading, writing, and translation. Prereq: CHIN& 123 or permission.

**CHIN& 222 (5) C,N**

Chinese V

Continuation of CHIN& 221. Studies similarities and differences between Chinese and English. Prereq: CHIN& 221 or permission.

**CHIN& 223 (5) C,N**

Chinese VI

Continuation of CHIN& 222. Use of Chinese in varied social settings. Includes writing academic papers and researching in Chinese. Prereq: CHIN& 222 or permission.

English

**ENGL 040 (5) S**

Comp I Career Link

Assessment and development of skills in language and communications including spelling, vocabulary, grammar and usage in a pre-technical career-oriented context. Emphasizes sentence and paragraph development to describe situations, objects and basic processes. Prereq: Appropriate testing and counseling.

**ENGL 041 (5) S**

Comp II Career Link

Assessment and development of language skills and communications skills in a pre-technical career-oriented context. Emphasizes paragraph and multi-paragraph writing and revision in various formats and purposes. Research paper or project relating to educational or career opportunities. Prereq: Appropriate placement testing and counseling.

**ENGL 042 (5) N,S**

Senior Project Research C-Link

Assessment and development of language and communications skills in academic and career contexts. Analysis of models of effective writing and speaking. Research paper or project on career-oriented topic integrated with a personal, historical, technical or sociological perspective. Prereq: Appropriate placement testing and counseling.

**ENGL 080 (1-5) N,S**

English Skills Shop

Individual and small group study to improve listening, speaking, study skills, reading comprehension and rate, vocabulary, phonics and word skills, spelling, grammar, writing sentences, paragraphs and essays. Prereq: Permission or placement; consult college testing office. Does not replace an ENGL 090-level class but may be taken concurrently with an 090-level classes.

**ENGL 093 (1-5) N**

Reading and Study Skills II

Development of College reading and study skills. Includes strategies for taking lecture notes, studying for exams, improving memory and reading comprehension and participating in small group discussions. Prereq: Placement Test.

**ENGL 094 (1-5) N**

Writing Improvement II

Emphasis on paragraph structure and basic sentence grammar. Practice in thinking, writing, editing and proofreading. Assignments in writing clear sentences and paragraphs. Prereq: Placement Test (S). For students who have completed ENGL 092 but still need more work at that level (C).

**ENGL 095 (1-5) N**

College Prep Read Study III

Emphasis on increasing reading speed and vocabulary, identifying the main idea and supporting ideas in expository reading, making inferences and evaluations and understanding figurative language. Includes study strategies for test-taking, note-taking and outlining. Prereq: Placement Test.

**ENGL 096 (1-5) N**

College Prep Writing III

Build writing skills through clear, correct sentences, well-developed paragraphs and coherent short essays. Prereq: Placement Test.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGL 097</strong></td>
<td>(10) C,N,S</td>
<td>Integrated Reading and Writing I</td>
<td>Provides opportunities to develop reading, writing, and critical thinking skills needed to write in academic settings. Includes reading and writing processes, critical thinking strategies, study skills, and grammar. Emphasizes application of course content toward understanding a variety of academic and career-related texts and composing unified and coherent sentences, paragraphs, and short essays. Prereq.: Placement.</td>
</tr>
<tr>
<td><strong>ENGL 098</strong></td>
<td>(10) C,N,S</td>
<td>Integrated Reading and Writing II</td>
<td>This course provides students with opportunities to further develop the reading, writing, and critical thinking skills needed to write in academic settings. Topics include reading and writing processes, critical thinking strategies, study skills, and grammar instruction. Upon completion, students should be able to apply these skills toward understanding a variety of academic and career-related texts and composing a college-level essay. Prereq.: Placement Test or Appropriate Prerequisite.</td>
</tr>
<tr>
<td><strong>ENGL 099</strong></td>
<td>(5) C,N,S</td>
<td>Supporting College Writing</td>
<td>This course is intended for students who are English 098 ready who wish to move directly into English 101. Any students who choose to bypass English 098 must enroll in a hard-linked English 099 and English 101. The primary focus of this course is to provide students with more in-depth opportunities to acquire the reading, writing, and critical thinking skills needed to write at the career and college ready level.</td>
</tr>
<tr>
<td><strong>ENGL 101</strong></td>
<td>(5) C,N,S</td>
<td>English Composition</td>
<td>English 101 is a college-level writing course that emphasizes academic writing and major strategies of reading and writing analytically. Writing assignments focus on engaging with and responding to a variety of texts. Instruction encourages students to develop, through revision and reflection, as readers, writers, and critical thinkers. PREREQ: Placement into ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 102</strong></td>
<td>(5) C,N,S</td>
<td>Composition II</td>
<td>Continuation of the composition sequence with further instruction and practice in the writing process, concentrating on critical reading and writing techniques needed for the preparation and completion of documented essays. Prereq: ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 103</strong></td>
<td>(5) S</td>
<td>Transitional English</td>
<td>Improvement of skills required for professional-technical communications. Assessment of reading, writing and oral improvement. Use of computer to teach principles of organizing, drafting and editing technical reports. Prereq.: Satisfactory performance on English placement test.</td>
</tr>
<tr>
<td><strong>ENGL 104</strong></td>
<td>(5) C,N</td>
<td>Advanced English Grammar</td>
<td>Study of rhetoric and grammar of the English sentence. Includes sentence structure, grammar of the paragraph, usage, diction and mechanics. This course is not remedial. Prereq.: Eligible for ENGL&amp; 101 or permission.</td>
</tr>
<tr>
<td><strong>ENGL 105</strong></td>
<td>(3) C,S,V</td>
<td>Applied Composition</td>
<td>Covers skills and strategies needed to meet writing demands in college and on the job. Prereq: Satisfactory performance on English placement test.</td>
</tr>
<tr>
<td><strong>ENGL 106</strong></td>
<td>(3) C,S</td>
<td>Technical Writing</td>
<td>Writing strategies geared to target audiences. Emphasis on research and problem-solving requiring critical reading and writing; development of ideas and argumentation. Includes layout and design, use of illustration, schematic and mathematics. Prereq: ENGL 105 or permission.</td>
</tr>
<tr>
<td><strong>ENGL 107</strong></td>
<td>(3) S</td>
<td>Technical Report Writing</td>
<td>Technical writing for the professional or student. Covers technical communication skills needed in industry. Provides examples of written or oral presentations typically required in a technical work setting. Prereq: ENGL 106.</td>
</tr>
<tr>
<td><strong>ENGL 111</strong></td>
<td>(5) C,N,S</td>
<td>Intro to Poetry</td>
<td>Study, appreciation and analysis of the form, meaning, music and metaphor of poetry. Includes poems from diverse sources. Prereq: Placement into ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 114</strong></td>
<td>(5) C,N,S</td>
<td>Intro to Drama</td>
<td>Study and analysis of great works of the theater, including major themes and trends of playwrights from the Greeks to the present. Prereq: Placement into ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 115</strong></td>
<td>(5) C</td>
<td>LGBT Literature</td>
<td>Surveys lesbian, gay, bisexual, and transgender literature. Explores ideas, themes, historical contexts, and social issues in fiction, poetry, drama, creative non-fiction, and essays. Prereq: Placement into ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 117</strong></td>
<td>(5) C</td>
<td>American Dialects</td>
<td>Survey of the contributions other languages and dialects have made to American English, its make-up and creative communicative dynamics.</td>
</tr>
<tr>
<td><strong>ENGL 120</strong></td>
<td>(5) C</td>
<td>Digital Literature</td>
<td>Exploration of digital literature and authors who use digital media to present their work. Overview of history of digital literature and emerging digital literary forms such as hypertext, interactive fiction, blogs, social media, apps, video games, and multimedia formats. No specialized software knowledge required. Access to computer and internet recommended. Prereq: Placement into ENGL&amp; 101.</td>
</tr>
<tr>
<td><strong>ENGL 125</strong></td>
<td>(5) C</td>
<td>Writing About Science</td>
<td>Explore and create works of non-fiction literature about the Physical, Earth, and Life Sciences, technology, the environment and related themes, contexts, and issues. Exploration of the role of science and science writing in public discourse, policy, debate, news reporting, and a variety of media presentation formats. No specialized science knowledge required. Prereq: ENGL&amp; 101 Placement.</td>
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<tr>
<td><strong>ENGL 130</strong></td>
<td>(5) C</td>
<td>Literature and the City</td>
<td>Introduction to fiction, non-fiction, poetry, and drama that illustrate life in American cities and issues such as race, politics, gender, class, family, education, and media. Prereq: ENGL&amp; 101 Placement.</td>
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<td>Course Code</td>
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<td>ENGL 135</td>
<td>5</td>
<td>C</td>
<td>The Spoken Word</td>
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<td>ENGL 140</td>
<td>5</td>
<td>C</td>
<td>Pacific Northwest Literature</td>
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<tr>
<td>ENGL 151</td>
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<td>C,N,S</td>
<td>Creative Writing</td>
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<tr>
<td>ENGL 152</td>
<td>5</td>
<td>C,N,S</td>
<td>Creative Writing</td>
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<tr>
<td>ENGL 153</td>
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<td>C,N,S</td>
<td>Creative Writing</td>
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<tr>
<td>ENGL 160</td>
<td>5</td>
<td>C</td>
<td>Introduction to Writing for Media</td>
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<tr>
<td>ENGL 161</td>
<td>5</td>
<td>C</td>
<td>Writing for Media: News Writing &amp; Reporting</td>
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<tr>
<td>ENGL 162</td>
<td>5</td>
<td>C</td>
<td>Writing for Media: Multimedia News Writing</td>
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<tr>
<td>ENGL 198</td>
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<td>S,V</td>
<td>English Workshop</td>
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<td>ENGL 199</td>
<td>2</td>
<td>N</td>
<td>College Applications &amp; Statements</td>
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<tr>
<td>ENGL 204</td>
<td>5</td>
<td>C</td>
<td>English Language &amp; Linguistics</td>
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<tr>
<td>ENGL 205</td>
<td>5</td>
<td>C</td>
<td>Creative Nonfiction</td>
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<tr>
<td>ENGL 214</td>
<td>5</td>
<td>C</td>
<td>Major British Authors</td>
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<tr>
<td>ENGL 218</td>
<td>5</td>
<td>C</td>
<td>Holocaust Literature</td>
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<tr>
<td>ENGL 219</td>
<td>5</td>
<td>C,N</td>
<td>Shakespeare 1</td>
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<tr>
<td>ENGL 224</td>
<td>5</td>
<td>C,N</td>
<td>Shakespeare 2</td>
</tr>
<tr>
<td>ENGL 225</td>
<td>5</td>
<td>C,N</td>
<td>British Literature 1</td>
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<tr>
<td>Course Code</td>
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<td>Prerequisites</td>
<td>Description</td>
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| ENGL 227 | 5 | C,N | British Literature II  
From 1540–1800. Covers Shakespeare and the English Reformation and Renaissance, English global expansion, growing awareness of science and The Age of Reason. Emphasizes the historical forces, social shifts and cultural differences that form the context for this literature. Prereq: Eligible for ENGL 101. |
| ENGL 228 | 5 | C,N | British Literature III  
Covers the French Revolution through the Romantic and Victorian periods through World War I (1785-1919). Emphasizes the historical forces, social shifts and cultural differences that form the context for this literature. Prereq: Eligible for ENGL 101. |
| ENGL 230 | 3 | C,N,S | Technical Writing  
Prepares formats and mechanics of writing needed in occupational areas related to engineering technologies. Emphasis on project types, layout and design, use of illustrations, schematics and mathematics, writing for specific audiences, research and documentation, and résumé writing. Prereq: ENGL 101. |
| ENGL 231 | 1-5 | C,N,S | Children’s Literature  
Explores a representative collection of children’s and young adult literature from multiple cultures within the Western literary tradition. Includes close reading of texts such as fairy tales, traditional tales, illustrations, picture books, realistic and historical fiction, and fantasy. Emphasizes historical context, literary themes, cultural implications for reading audiences, and the role of children's narratives in the social construction of childhood. Recommended: Completion of ENGL 101 (N,C). |
| ENGL 232 | 5 | C,N,S | Young Adult Literature  
Exploration of young adult literature that represents culturally diverse populations within the United States with emphasis on values reflected and the power and elements of story. Prereq: Placement into ENGL 101. |
| ENGL 235 | 5 | N,S | Technical Writing  
Explores basic formats and content of technical communication. Covers writing process; analysis of purpose and audience for various reports and documents; research, documentation, presentation of technical material; and communication in digital media. Projects include writing and editing, digital communication, and collaboration. Prereq: ENGL 101. |
| ENGL 240 | 5 | C,N | Read/Write Autobiography  
Read autobiographies of well-known people and write your own. Involves both critical and personal writing assignments, with an emphasis on the personal dimension of writing. Prereq: ENGL 101 Placement. |
| ENGL 245 | 5 | C,N,S | American Literature II  
Covers 19th century writers in all written forms. Prereq: Eligible for ENGL 101. |
| ENGL 246 | 5 | C,N,S | American Literature III  
Covers late 19th and 20th century writers with emphasis on modern fiction, drama, poetry and trends in literature. Practice critical techniques. Prereq: Eligible for ENGL 101. |
| ENGL 247 | 5 | C | 21st Century American Literature  
| ENGL 251 | 5 | C,N | Studies in the Novel  
Studies major novels associated with specific philosophical or chronological periods, such as the great Victorian novelists, the Naturalists and American Realists. Usually covers 5 novels per quarter. Prereq: Eligible for ENGL 101 (N). |
| ENGL 252 | 5 | C,N | Novels of Western Literature  
Emphasis on European and American novels from the past two centuries viewed in the philosophical and historical contexts. Prereq: ENGL 101 Placement. |
| ENGL 253 | 5 | N | Studies in the Novel  
Continuation of ENGL 252. Prereq: Eligible for ENGL 101 (N). |
| ENGL 254 | 5 | C,N | World Literature I  
Critical readings and discussion of the creation stories and early literature of several ancient cultures, examining the material as myth, as history, as literature and as records of a culture’s self-image. May include Enuma Elish, Gilgamesh, The Theogony, The Iliad, The Odyssey, the plays of Sophocles and Aeschylus, parts of the Bible and writings of Virgil and Ovid. Prereq: ENGL 101 Placement. |
| ENGL 256 | 5 | C,N | World Literature III  
Cross-cultural survey of contemporary world literature from Latin America, Africa, Asia, the Middle East, Europe and the United States from the 20th Century to the present. Prereq: Placement into ENGL 101. |
| ENGL 257 | 5 | C,N | Literary Masterpieces of the United States  
Illustrates the richness and variety of writing and represents enduring concerns and questions of American literature through selected works. Prereq: ENGL 101 Placement. |
| ENGL 258 | 5 | C,N,S | Literature of American Culture  
Survey of literature from a variety of U.S. cultures including Asian American, African American, European American, Chicano and Latino American, Middle Eastern American, Native American, and others. Emphasis on analysis of social, cultural, political, and historical contexts. Prereq: Placement into ENGL 101. |
| ENGL 259 | 5 | C,N | African American Literature  
Survey of African American literature (fiction, poetry, drama, essays) from the 19th Century to the present. Prereq: Placement into ENGL 101. |
| ENGL 260 | 5 | C,N,S | Asian American Literature  
Focuses on fiction and poetry of Asian-Americans, covered in order of their immigration: Chinese, Japanese, Filipino, Korean, Southeast Asian and the recent groups from Asia and the Pacific Islands. Prereq: Eligible for ENGL 101. |
| ENGL 263 | 5 | C,N | The Bible as Literature  
| ENGL 265 | 5 | C,N | Literature & Society  
Studies patterns of literary expression as a guide to social attitudes and value systems, the part society plays in shaping literature and the degree to which literature reflects society. Prereq: Placement into ENGL 101. |
ENGL 270 (5) C
Beat Generation Writers
Focus on the literature of the Beat Generation writers in the U.S. in the 1940s, such as Jack Kerouac, Allen Ginsberg and William Burroughs, who continue to have an influence on American society today. Prereq: Eligible for ENGL& 101.

ENGL 291 (5) C,N,S
Literature by Women
Surveys literature by culturally diverse American women authors. Analyzes fiction and non-fiction texts of various genres. Examines the ways in which women’s literary voices have shaped society, culture, politics, and gender roles in the United States. Prereq: ENGL& 101 Placement.

ENGL 292 (5) C,N
Literature by Women: Global Perspectives
Survey of literature by women from African, Asian, Latin American, Middle Eastern, European and other cultures. Prereq: Placement into ENGL& 101.

ENGL 293 (5) C,N,S
Science Fiction
Examines selected readings in science fiction and fantasy from the 19th century to present. May include American, British, continental European or other international writers. Prereq: Placement into ENGL& 101.

ENGL 296 (1-3) C,N
Special Topics English
Special courses developed by instructors. Prereq: permission.

ENGL 298 (5) C,N,S
Special Topics
In-depth examination of current and emerging topics and themes relevant to the study of English. Consult Humanities & Social Sciences Division and quarterly class schedule for the specific topic to be offered. Prereq: Placement into ENGL& 101.
<table>
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<tr>
<th>Course Code</th>
<th>Unit(s)</th>
<th>Credits</th>
<th>Description</th>
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</table>
| ESL 025     | (1-12)  | C,N,S   | Focus on Writing Level 2
Practice in reading, writing, and grammar skills for survival and academic English. Emphasis on vocabulary development, reading comprehension and speed, and writing for effective communication in a job or daily situations. |
| ESL 026     | (1-12)  | C,N,S   | ESL Speaking/Listening 2
Practice in speaking and listening skills needed for job and/or daily situations. Prereq: ESL 012, 016, or placement at ESL Level 2. |
| ESL 027     | (1-5)   | C,N,S   | Intro to Digital Literacy ESL
Introductory digital literacy course for non-native speakers of English. Practice English skills needed to obtain or keep a job. |
| ESL 028     | (1-15)  | C,N,S   | Workplace ESL Level 2
Advanced beginning level for non-native speakers of English. Practice English skills needed to obtain or keep a job. |
| ESL 030     | (1-12)  | C,N,S,V | ESL Level 3
| ESL 031     | (1-15)  | C,N,S   | ESL – Level 3a
Intermediate level course for non-native speakers of English with continued emphasis on improving vocabulary, reading with understanding, and conveying ideas in writing. Prereq: ESL 020 or placement, ESL 022 (N). |
| ESL 032     | (1-15)  | C,N,S   | ESL – Level 3b
Intermediate level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and simple paragraphs. Prereq: ESL 020, ESL 031 or placement. |
| ESL 033     | (1-12)  | C,N,S   | ESL – Level 3c
Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing includes sentence construction and simple paragraphs. Prereq: ESL 032 or placement. |
| ESL 034     | (1-12)  | C,N,S   | ESL – Level 3d (Fast Track)
Fast track course for students who are able to study at a faster pace than their classmates. Covers ESL 031, 032 and 033 in one quarter (North covers ESL 031 and 032). North students with less than a 75% average may return to other ESL classes as determined by their instructor. Prereq: Instructor recommendation only. |
| ESL 035     | (1-15)  | C,N,S   | Focus on Writing Level 3
For students who want to improve their writing skills. In-depth study of English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 3 or teacher recommendation. |
| ESL 036     | (1-15)  | C,N,S   | ESL Speaking/Listening 3
Practice in speaking and listening skills needed for job and/or daily situations. Prereq: ESL 022, or placement at ESL Level 3. |
| ESL 037     | (1-5)   | C,N,S   | Begin Digital Literacy ESL
Beginning digital literacy course for non-native speakers of English with emphasis on improving vocabulary, reading with understanding, and conveying ideas in writing. Prereq: Completion of ESL 027. |
| ESL 038     | (1-15)  | C,N,S   | Workplace ESL 3
Low intermediate level for non-native speakers of English. Practice English skills needed to obtain or keep a job. |
| ESL 039     | (1-15)  | C,N,S   | Vocational ESL 3
Intermediate level for non-native speakers of English. Focuses on workplace and survival English and beginning academic English. Includes career planning, test-taking, study skills, interview skills, résumé writing, and computer and math skills. May also cover health, finances, college/training programs and/or citizenship. |
| ESL 040     | (1-15)  | C,N,S,V | ESL Level 4
Emphasis on oral and listening skills, reading instruction to improve vocabulary, comprehension, speed and writing practice. Prereq: ESL 030, ESL 032 or placement (N). |
| ESL 041     | (1-15)  | C,N,S   | ESL Level 4a
Intermediate-level course for non-native speakers of English with emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and paragraph development. Prereq: ESL 030, ESL 041 or placement. |
| ESL 042     | (1-15)  | C,N,S   | ESL Level 4b
Intermediate-level course for non-native speakers of English with continued emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and paragraph development. Prereq: ESL 030, ESL 032 or placement (N). |
| ESL 043     | (1-5)   | C,N,S   | ESL Level 4c
Intermediate-level course for non-native speakers of English with emphasis on improving vocabulary, reading comprehension and speed. Writing practice includes sentence construction and paragraph development. Prereq: Instructor recommendation only (N). |
| ESL 044     | (1-10)  | C,N,S   | ESL Level 4d (Fast Track)
Fast track course for students who are able to study at a faster pace than their classmates. Covers ESL 041 and ESL 042 in one quarter. Prereq: Instructor recommendation only (N). |
| ESL 045     | (1-15)  | C,N,S   | Focus on Writing Level 4
For students who want to improve their writing skill. In-depth study of English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 4 or teacher recommendation. |
| ESL 046     | (1-15)  | C,N,S   | ESL Speaking/Listening Level 4
Practice, develop and improve speaking and listening skills needed for daily life, jobs and student educational goals. Emphasis on communication skills, not specific pronunciation. Prereq: Placement at Level 4 for listening skills or teacher recommendation. |
| ESL 047     | (1-5)   | C,N,S,V | Intermediate Digital Literacy ESL
Intermediate digital literacy course for non-native speakers of English with emphasis on improving vocabulary, reading with understanding, and conveying ideas in writing. Prereq: Placement at ESL 031 or higher and completion of ESL 037 or instructor permission. |
ESL 048 (1-15) C,S
Workplace ESL Level 4
Develop skills necessary to transition successfully into an American college. Practice taking standardized English proficiency and placement tests. Provides information about the application process for financial aid and support services. Explores issues of time management, students' own current abilities and styles of learning, barriers, learning deficiencies or skills gaps. Covers strategies for improvement. Prereq: None.

ESL 049 (1-15) C,N,S
Vocational ESL Level 4
Supports vocational, technical and employment training.

ESL 050 (1-15) C,N,S,V
ESL Level 5 High
Intermediate ESL course to develop reading, writing and grammar skills for students preparing to take college level courses. Prereq: ESL 042, 044 or placement on the ESL Placement Test (C, S). Placement in ESL 051 or 052 (N).

ESL 051 (1-15) C,N,S
ESL Level 5a
High intermediate ESL course with emphasis on reading, writing, speaking and listening and grammar skills. Emphasis on accuracy of sentence level grammar and reading skills involving vocabulary development and inferencing skills. Prereq: ESL 042, 044 or placement.

ESL 052 (1-15) C,N,S
ESL Level 5b
High intermediate ESL course with continued emphasis on reading, writing, speaking and listening and grammar skills to prepare students for vocational or academic coursework and for employment. Prereq: ESL 051 or placement.

ESL 055 (1-15) C,N,S
Focus on Writing Level 5
For students who want to improve their writing skills. Study English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 5 or teacher recommendation.

ESL 056 (1-15) C,N,S,V
ESL Speaking/Listening Level 5
Upon completion, be able to listen actively and speak so others can understand and participate effectively and independently in conversations on everyday survival, work and social situations, in person and on the telephone.

ESL 057 (1-5) C,N,S
Advanced Digital Literacy ESL
Advanced digital literacy course for non-native speakers of English with an emphasis on improving vocabulary, reading with understanding, and conveying ideas in writing. Prereq: ESL 041 or higher and completion of ESL 047 or instructor permission.

ESL 058 (1-10) N
English for Business & Accounting Prep
This course is designed to prepare ESL students for study in Business and Accounting programs. Topics will include business and workplace vocabulary. Also covers skills related to computers, studying, job searches, and employability.

ESL 059 (1-15) C,N,S,V
Vocational ESL
Provides specific support in vocational ESL and assists students pursuing career and professional technical programs.

ESL 060 (1-15) C,N,S,V
ESL Level 6
Emphasis on writing multi-paragraph compositions and reading a variety of texts. Prereq: Placement in ESL 061 or 062.

ESL 061 (1-15) C,N,S
ESL Level 6a
Emphasis on writing multi-paragraph compositions and reading a variety of texts. Continued work on grammar. Prereq: ESL 052 or placement.

ESL 062 (1-15) C,N,S
ESL Level 6b
Emphasis on composition, reading a variety of texts, grammar and vocabulary expansion. Prereq: ESL 061 or placement.

ESL 063 (1-10) C,S
ESL for IT 1
1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

ESL 064 (1-10) C,S
ESL for IT 2
1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

ESL 065 (1-3) C,N,S
Focus on Writing Level 6
For students who want to improve their writing skills. Study English word order, spelling problems, sentence boundaries, some persistent grammatical problems and simple paragraph writing. Prereq: Placement at Level 6 or teacher recommendation.

ESL 066 (1-15) C,N,S
ESL Speaking/Listening Level 6
On completion, be able to listen actively and speak so others can understand.

ESL 067 (1-15) C,N,S
Computer Assisted ESL 6
A self-paced, individualized instructional setting for ESL Level 6 students to build on English skills learned in core ESL classes.

ESL 068 (1-3) C,N,S
Educational Interview
Helps ESL students at all competency levels identify their current abilities, characteristics, styles and readiness to learn. Intro to campus resources.

ESL 069 (1-15) C,N,S
Vocational ESL
For ESL students concurrently enrolled in a professional-technical program. Provides specific support in content courses and vocational ESL and assists students in completing their programs and building job-related language skills. Prereq: Permission.

ESL 070 (1-10) C,S
ESL for IT 3
1 of 3 non-sequential courses which integrate the Washington State Adult Basic Education ESL Levels 5 and 6 reading, writing, listening and speaking standards with MIC courses, which provide the context for ESL learning outcomes and activities.

ESL 071 (1-15) C,N,S
ESL Citizenship 1
Beginning level preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL Level 3 or higher.

ESL 072 (1-15) C,N,S
ESL Citizenship 2
Intermediate level preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL 071 or permission.
Course Descriptions

**ESL 073** (1-15) C,N,S
**ESL Citizenship 3**
Continued preparation for the United States citizenship examination through the practice of listening, speaking, reading and writing skills and through the study of U.S. history and government. Prereq: ESL 072 or permission.

**ESL 075** (1-3) N,S
**English Pronunciation 2**
Intro to the basics of accurate English pronunciation such as vowel and consonant sounds and sentence intonation. Prereq: Placement in Level 3, 4, or permission.

**ESL 076** (1-5) C,N,S
**English Pronunciation**
Intro to the basics of accurate English pronunciation for non-native speakers of English: some stressed and unstressed vowel sounds, basic word stress patterns, sentence stress and rhythm and other features.

**ESL 077** (1-15) C,N,S
**Advanced English Pronunciation 1**
Advanced course on accurate English pronunciation: troublesome vowel and consonant sounds, word stress and sentence intonation. Prereq: Placement into ESL 061 or 092/093 or instructor permission.

**ESL 078** (1-15) C,N,S
**Advanced English Pronunciation 2**
Advanced course on accurate English pronunciation: troublesome vowel and consonant sounds, word stress and sentence intonation. Prereq: Placement into ESL 061 or 092/093 or instructor permission.

**ESL 079** (1-5) C,N,S
**College Transitional English**
Pre-college course to develop reading skills. Practice in note taking, listening and study skills. Prereq: concurrent enrollment in ESL 080.

**ESL 080** (1-5) C,N,S
**College Transitional English**
Pre-college course to develop reading skills and increase vocabulary.

**ESL 083** (1-5) N,S
**Strategic Learning**
Supports strategic learning in a college credit class through concurrent enrollment in the college class and ESL 083. Learn appropriate study skills such as metacognitive strategies, previewing, skimming and scanning of written materials, summarizing and paraphrasing, note-taking, revision and expansion of notes and research techniques. Understand and meet content teacher expectations.

**ESL 084** (1-5) C,N,S
**English for Non-Native Speak**
Thirty-hour Telecourse to help high beginning ESL students improve their speaking, listening, comprehension skills and vocabulary. Do speaking, listening, comprehension and vocabulary development exercises. Required attendance for ten three-hour class meetings on campus.

**ESL 085** (1-5) C,N,S
**Survey of English Grammar**
For students under-prepared for college level English. Covers basic English grammar with a focus on writing simple, compound and complex sentences and paragraphs. Learn and practice academic English vocabulary to enhance writing skills. Prereq: Placement on ESL COMPASS test.

**ESL 086** (1-5) C,N,S
**Survey of English Grammar II**
Covers intermediate to advanced English grammar with an emphasis on sentence and paragraph writing using simple, compound and For students under-prepared for college level complex sentences. Continue developing academic English vocabulary to enhance writing skills. Prereq: Placement on the ESL COMPASS test.

**ESL 087** (1-5) S
**Language Skill Support I**
Work out an individualized program with the instructor, which could include the use of computer software/Internet resources. Focuses on content area, grammar, reading, writing, punctuation, spelling and vocabulary building.

**ESL 088** (1-3) C,N,S
**Advanced English Pronunciation**
Advanced course on accurate English pronunciation. Covers features such as certain vowel and consonant sounds, word and sentence stress. Prereq: Placement in ESL 092/093 or higher or permission.

**ESL 089** (1-5) C,N,S
**Pronunciation Practice/Vocabulary Development**
Advanced class on accurate English pronunciation. Practice pronunciation, listening, conversation and writing skills to reinforce the work of ESL classes or other vocational or academic courses. May be repeated a maximum of eight quarters (ESL 089A-H). Must be taken in conjunction with recommended ESL classes. Coreq: Enrollment in ESL 092-099 or permission (C). Prereq: ESL 094/095 placement or permission (N).

**ESL 090** (1-5) C,N,S
**Pronunciation for Non-Native Speakers**
Emphasizes improving pronunciation and comprehension of spoken English by non-native speakers. Focuses on general and individual pronunciation problems, especially stress and intonation. Includes class presentations and group communications. Prereq: Permission.

**ESL 091** (1-5) C,N,S
**Listening/Note Taking-ESL**
Improve listening, speaking and note-taking skills necessary for college lecture courses. Participate in lectures, workshop and videotaped lectures. Prereq: Placement on ESL COMPASS test.

**ESL 092** (1-5) C,N,S
**English: Non-Native Speakers**
For non-native speakers reading below the seventh-grade level. Emphasis on reading comprehension and study skills. Prereq: Placement on English placement test or permission (S); ESL 051 or placement in English placement test (N). Coreq: ESL 093.

**ESL 093** (1-5) C,N,S
**English for Non-Native Speakers**
Provides English language learners the opportunity to master control of the English sentence, with a strong focus on incorporating grammar into paragraph writing. Through the combination of lectures and workshops, students will build awareness of specific problems in their writing and will learn strategies for reducing them. Prereq: placement on ESL COMPASS Test (C).

**ESL 094** (1-5) C,N,S
**English for Non-Native Speakers II**
For non-native speakers of English who need practice with basic academic reading, vocabulary, and writing responses to readings. Emphasizes reading comprehension and speed. Prereq: Placement on ESL COMPASS test. Coreqs: ESL 085 and 095.

**ESL 095** (1-5) C,N,S
**English for Non-Native Speakers II**
ESL 097 (1-5) C,N,S
College PREP/Non-Natives
For non-native speakers. Practice developing coherent paragraphs into short essays. Review English writing styles and their application to academic writing. Prereq: ESL 093, placement on ESL Compass Test (C); ESL 094/095 or placement on ESL Compass Test (N). Prereq: ESL 095, placement on ESL Compass Test or permission. Coreqs: ESL 086 and 096 (S).

ESL 098 (1-5) C,N,S
College PREP/Non-Natives
Emphasis on vocabulary, increasing comprehension and formulation of answers to essay questions. Reading includes college-level academic and vocational texts. Concurrent enrollment in ESL 091 or ESL 099 strongly recommended. Prereq: ESL 096, placement on the English placement test or permission.

ESL 099 (1-5) C,N,S
College PREP/Non-Natives
Develop coherent paragraphs and short essays. Emphasis on complex paragraphs using appropriate style and techniques of paraphrasing and summarizing. Includes library research skills. Preparation for college-level writing. Prereq: ESL 097, placement on the English placement test, or permission. Recommended Coreq: ESL 091 or ESL 098.

French
FRCH& 121 (5) C,N
French I
For students who have not previously studied French. Covers fundamentals of grammar and syntax, oral and written exercises, pronouncing, reading, and conversation, and cultural aspects of the countries in which French is spoken. Requires oral practice with CDs outside of class. Recommended: Eligibility for ENGL& 101 (C).

FRCH& 122 (5) C,N
French II
Intended for students who have completed French 121 or its equivalent. Continued study of the fundamentals of grammar and syntax, pronunciation, reading and conversation, and cultural aspects of the countries in which French is spoken. Emphasis on written and oral communication.

FRCH& 123 (5) C,N
French III
Intended for students who have completed French 121 and French 122 or their equivalents. Continued study of the fundamentals of grammar and syntax, pronunciation, reading and conversation, and cultural aspects of the countries in which French is spoken. Increased emphasis on oral communication. Requires oral and listening practice with CDs outside of class.

FRCH& 221 (5) C,N
French IV
Detailed review of French grammar and syntax. Focus on writing, conversation and discussion of literary texts. Includes oral presentations on aspects of francophone cultures. Prereq: FRCH& 123 or permission.

FRCH& 222 (5) C,N
French V
Continuation of FRCH& 221. Prereq: FRCH& 221 or permission.

FRCH& 223 (5) C,N
French VI
Continuation of FRCH& 222. Prereq: FRCH& 222 or permission.

FRCH 231 (5) N
Advanced French Language & Literature
Advanced review of all major concepts of French grammar and broadening of vocabulary base with more challenging reading and writing assignments. Some tutoring in small group work with FRCH& 221 students is expected. Prereq: FRCH& 223 or permission.

FRCH 232 (5) N
Advanced French Language & Literature
Continuation of FRCH 231. Prereq: FRCH 231 or permission.

FRCH 233 (5) N
Advanced French Language & Literature
Continuation of FRCH 232. Prereq: FRCH 232 or permission.

FRCH 298 (1-5) C,N
Independent Study/French
Independent study of selected topic(s) in French. To be arranged with instructor. Prereq: Permission.

FRCH 299 (1-5) C,N
Independent Study/French
Independent study of selected topic(s) in French. Prereq: Permission.

German
GERM& 121 (5) C,N
German I
Covers fundamentals of grammar and syntax, oral and written exercises, pronunciation, reading and conversation, and cultural aspects of the countries in which German is spoken. Requires oral practice with online audio programs. For students who have not previously studied German. Recommended: Eligibility for ENGL& 101 (C).

GERM& 122 (5) C,N
German II
Continuation of GERM& 121. Focus on syntax, oral and written exercises, reading and conversation, fundamentals of grammar, pronunciation and culture. Prereq: GERM& 121 or permission.

GERM& 123 (5) C,N
German III
Continuation of GERM& 122. Emphasis on speaking, reading, writing and grammatical concepts and cultural discussions. Prereq: GERM& 122 or permission.

GERM 299 (5) C,N
Independent Study in German
Furthers skills beyond the level of GERM& 123. Uses an intermediate text of contemporary short stories. Prereq: Permission.

Italian
ITAL 121 (5) C,N
Italian I
For beginning students. Intro to spoken and written Italian with emphasis on speaking, listening and reading comprehension. Covers phonetic system and basic grammar concepts. Includes Italian culture and contemporary customs as an aid in learning the language.

ITAL 122 (5) N
Italian II
Continuation of ITAL 121. Emphasizes pronunciation, oral and written communication.
Japanese

JAPN& 121 (5) C,N,S
Japanese I
For students who have not previously studied Japanese. Intro to Japanese conversation, grammar, culture and the Japanese hiragana writing system. Recommended: Eligible for ENGL 101 eligibility (C).

JAPN& 122 (5) C,N,S
Japanese II
Continuation of JAPN& 121. Includes development of speaking, listening, reading and writing skills. Introduces the kanji (Chinese character) writing system and up to 30 basic characters. Prereq: JAPN& 121 or permission.

JAPN& 123 (5) C,N,S
Japanese III
Continues the development of language skills in all areas. Presents another 60 characters. Prereq: JAPN& 122 or permission.

JAPN& 221 (5) C,N
Japanese IV
Expands basic grammar, vocabulary and writing systems to intermediate level speaking, reading, writing and aural comprehension of the language. Acquire mastery of hiragana, katakana and 100 kanji. Prereq: JAPN& 123 or permission.

JAPN& 222 (5) C,N
Japanese V
Continuation of JAPN& 221. Further expands grammar, vocabulary and writing systems to intermediate level of speaking, reading and writing. Intro to new kanji. Prereq: JAPN& 221 or permission.

JAPN& 223 (5) C,N
Japanese VI
Continuation of JAPN& 222. Further expands basic grammar, vocabulary and writing systems to intermediate level of speaking, reading and writing. Intro to new kanji and the use of the Japanese dictionary. Prereq: JAPN& 222 or permission.

JAPN 298 (1-10) C,N
Study Abroad/Japan
Independent study of selected topic(s) in Japanese arranged with faculty. Prereq: Permission.

JAPN 299 (1-5) C,N,S
Independent Study/Japanese
Independent study of selected topic(s) in Japanese arranged with faculty. Prereq: Permission.

Linguistics

LAN 101 (5) C
Intro to Linguistics
Intro to the study of natural language. Presents the similarities in the basics of language as an instrument of thought and communication. Covers the sources for cultural differentiation between all linguistic materials.

LAN 110 (5) C
Comparative Linguistics: American Sign Language & English
Introduction to linguistics as applied to English and American Sign Language. Examination of phonology, morphology, syntax and language use. At Central, fulfills one of the distribution requirements for the Associate of Arts with Emphasis in Deaf Studies. Prereq: ENGL& 101 and ASL& 221 with a minimum GPA of 2.0, or permission.

Spanish

SPAN& 121 (5) C,N,S
Spanish I
Begins the systematic study of Spanish focusing on listening, speaking, reading, writing, grammar, and cultural aspects of the countries in which Spanish is spoken. Requires oral practice with online audio program. No prior knowledge of Spanish required. Prereq: Eligibility for ENGL& 101 (C)

SPAN& 122 (5) C,N,S
Spanish II
Continuation of SPAN& 121. Emphasis on pronunciation, oral and written communication. Prereq: SPAN& 121 or permission.

SPAN& 123 (5) C,N,S
Spanish III
Continuation of SPAN& 122. Prereq: SPAN& 122 or permission.

SPAN& 221 (5) C,N
Spanish IV
Continuation of SPAN& 123. Review of grammatical structures, intensive practice in writing, conversations and reading on a variety of topics. Intro to Hispanic culture, literature and art. Prereq: SPAN& 123 or permission.

SPAN& 222 (5) C,N
Spanish V
Continuation of SPAN& 221. Emphasis on the four aspects of language: reading, writing, listening and speaking through composition, oral presentation and guest speakers. Prereq: SPAN& 221 or permission.

SPAN& 223 (5) C,N
Spanish VI
Continuation of SPAN& 222. Prereq: SPAN& 222 or permission.

SPAN 236 (5) C,N
Latin American Colonial Literature
Survey of literary expressions of Colonial times through 18th century in Spanish America and Peninsular Spain. Covers representative and outstanding prose works of 16th and 17th centuries. Also offered as LIT 236.

SPAN 238 (5) C,N
Chicano Narrative
Intro to significant works in Chicano literature. Study of genre development. Understand the implications of interdependence among diverse cultural groups. Also offered as LIT 238.

SPAN 299 (1-5) C,N
Independent Study
Spanish Independent study of selected topics in Spanish arranged with instructor. Prereq: Permission and completion of 100 and 200 series or equivalent.

Vietnamese

VIET& 121 (5) C
Vietnamese I
Pre req: SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

VIET& 122 (5) C
Vietnamese II
Pre req: VIET 121, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

VIET& 123 (5) C
Vietnamese III
Pre req: VIET 121 & VIET 122, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.
Vietnamese IV
Vietnamese for second-year students. Increase ability to communicate and interact through speaking, listening, reading and writing. Prereq: VIET 123, SLEP/ASSET placement scores indicating ENGL& 101 readiness, or equivalent and/or permission.

Linguistics
See Languages & Literature, page 318.

Logistics
LOG 197 (5) S
Egis and International Freight
Examines current and enduring issues of freight operations, air and surface modes, inbound and outbound logistics, and private and public policies. Focuses on expectations: customers want reliable service and reasonable prices; employees and regulators want greater safety and security; citizens want access to services and responsible care of the environment without tax increases; and shareholders want at least market returns on their investments.

LOG 235 (3) S
Intro to Transportation and Logistics
Covers fundamentals of commercial transportation: operations and processes in efficient movement of cargo, logistics, supply chain management and the impact of these on the financial performance of business. Includes major transportation modes, the legal and regulatory environment, costing and pricing, security issues, managing transportation partnerships, and use of information and technology in the logistics sector.

LOG 236 (4) S
Intro to Air and Sea Operations
Intro to the structure, organization, and operation of a modern airport and seaport, including current issues and challenges. Covers the critical interface with private sector providers of agency, terminal, stevedoring, tug, and line-handling services. Examines roles of customs brokers, freight forwarders, cargo consolidators and government regulatory agencies.

LOG 237 (4) S
Supply Chain Management
Examines the global supply chain with an emphasis on supply sources, distribution, production planning, information systems, customer service, inventory management, warehouse management, supply chain relationships, and challenges facing managers today. Covers supply chain management systems and relationships.

LOG 238 (4) S
Domestic and International Freight
Examines current and enduring issues of freight operations, air and surface modes, inbound and outbound logistics, and private and public policies. Focuses on expectations: customers want reliable service and reasonable prices; employees and regulators want greater safety and security; citizens want access to services and responsible care of the environment without tax increases; and shareholders want at least market returns on their investments.

LOG 239 (4) S
Transportation Border Security
Covers border and transportation security, including the protection of seaports, ships, aircraft, trains, ships and pipelines. Includes physical and procedural controls, and regulations of the Department of Homeland Security, Transportation Security Administration, Federal Aviation Administration, and the U.S. Coast Guard. Discusses current threats, counter-terrorism, new technologies, and the importance of passenger and cargo security to the global economy.

Manufacturing Technician
MFGT 105 (20) S
Basic Manufacturing
This course is an introduction to machining technology as it affects part design, part programming, and part production. In addition, students will learn about numerical controls and its impacts on the manufacturing industry, and absolute and incremental dimensioning as it applies to numerical control machines.

MFGT 120 (20) S
Advanced Manufacturing
This course is designed to prepare individuals as CNC Machinists. Instruction covers advanced programming, setup and operation of CNC machining and turning centers, geometric dimensioning and tolerance, trigonometry, machine tool theory, statistical process control.

Marine Technology
MGO 100 (24) C
Deckhand Cook
Two-quarter class. Learn cooking theory and train to prepare crew meals at sea. Also includes seamanship, specifically securing ropes and wires to barges, vessel and equipment maintenance checks and repairs and watchkeeping skills.

MGO 101 (2) C
Principles of Marine Mechanics
Provides training in proper use of hand tools, power tools (both hand and stationary) and measuring instruments commonly used in mechanical trades. Covers safe work practices, including safety equipment, work procedures, etiquette and regulatory considerations. Includes fastenings, bearings, seals, gasketing methods and other relevant materials and equipment.

MGO 103 (3) C
Survival Craft
A study of survival craft commonly found aboard ships today. Training in lifeboat operation and handling congruous to that required for the U.S. Coast Guard rating of Lifesaving. Includes lifeboat nomenclature and equipment, launching procedures, handling by oars, inflatables and other types of lifesaving equipment.

MGO 105 (3) C
Leadership & Management
Examines relevant concepts and principles in management, leadership and organizational communication as they apply aboard ship. Emphasis on instilling an attitude and work ethic required to realize the objectives of "social responsibility" advocated by the STCW Code. Satisfies the General Education Requirement in human relations.
MGO 111 (3) C
Seamanship
Study in seamanship to prepare for employment aboard ship. Includes training in seamanship congruous to that required for the U.S. Coast Guard rating of Able Seaman (AB). Includes nomenclature, ship structure, vessel equipment, deck fittings, knots and splices, rigging and watchstanding duties.

MGO 112 (2) C
Marlinspike
Practical instruction in use of line, cordage, wire rope and splicing methods. Includes reeving tackles and rigging stages, boat-swains' chairs, pilot ladders and emergency steering gear.

MGO 113 (3) C
Marine Safety
Covers basic damage control, marine firefighting and other safety topics to prepare for employment in the marine industry. Includes stability changes to a damaged vessel, emergency repairs to hull and vessel systems, proper use of marine firefighting equipment, vessel safety equipment, shipboard emergency procedures and survival at sea.

MGO 117 (4) C
Marine Engineering Orientation
This course is the introductory underway practicum for first quarter students. The student receives and indoctrination to shipboard responsibilities for designated duty engineers and practical experience in engine room watchstanding. In addition, the student will receive instruction in the fundamentals of seamanship and will learn to perform preventive maintenance chores while underway. Student will make 8-hour voyages weekly throughout the academic quarter aboard MTC’s training vessels.

MGO 119 (3) C
Marine Mathematics
Reviews algebraic and trigonometric methods. Includes the basics of signed numbers, linear equations, fractions, percentages, plane geometry, measurement and variables which represent additional aspects of mathematics required to solve shipboard problems. Satisfies the General Education Requirement in computation. Prereq: Math placement exam or permission.

MGO 120 (2) C
Vessel Maintenance
Practical experience in vessel cleaning maintenance procedures and routine operation of a ship. Tasks include washing, sanding, scaling, chipping, grinding, priming, painting, stenciling and other assigned work both on the interior and exterior of training vessels. Focus on proper technique, optimal resource utilization, cost effectiveness and corrosion prevention.

MGO 123 (3) C
Basic Piloting & Navigation
Introductory course focuses on chart navigation and basic methods of piloting. Emphasis on the use of charts and nautical publications, the IALS “B” buoyage system and solving standard navigation problems. Learn to determine geographic and luminous ranges of lights; correct for compass error, set and drift; plot dead reckoning tracks, running fixes and lines of position; solve time, speed and distance equations; predict tides and tidal currents; calculate simple ETA; formulate anchorage procedures.

MGO 124 (2) C
Basic Vessel Handling
Covers fundamentals of ship handling for small vessels based on single-screw theory. Instruction in ship handling techniques includes backing and filling, -Y-backing, emergency stopping, flanking, and docking and undocking. Uses a small training vessel.

MGO 127 (4) C
Fundamentals of Marine Electricity
Fundamentals of AC and DC electricity and elementary electronics. Focuses on basic theory, measurements and instruments, routine maintenance of electrical components and general operation of shipboard electrical systems. Prereq: MGO 119, MATH 098 or permission.

MGO 133 (6) C
Seamanship Practicum
Introductory underway practicum. Receive indoctrination to both watchstanding duties and shipboard responsibilities of an able seaman. Perform all deck-related tasks one might expect to encounter when actually at sea. Involves 12-hour voyages weekly aboard SMA’s training vessels. Prereq: MGO 133.

MGO 137 (2) C
Electronic Navigation
This course introduces the student to standard electronic equipment and systems used to aid navigation and communication. (NB: This course is not designed to satisfy the requirements of either 46 CFR 10.480 or 15.815. Will need to take a USCG-approved radar observer course from an organization certified by the Coast Guard.)

MGO 140 (3) C
Nautical Rules of Road
Comprehensive study of navigation rules and regulations including purpose, technical provisions and application. Provides a comparative study of the international (COLREGS) and inland (U.S. domestic) rules with emphasis on practical interpretation and application.

MGO 147 (6) C
Marine Engineering Practicum Introductory underway practicum. Receive an indoctrination to both watchstanding duties and shipboard responsibilities of a marine engineer. Covers how to read vessel blueprints, trace machinery systems and troubleshoot simulated malfunctions. Involves 12-hour voyages weekly aboard SMA’s training vessels.

MGO 166 (6) C
Navigation Practicum
Advanced underway practicum. Under supervision, assume role of mate aboard ship and be responsible for navigating the training vessel and operating all related navigational equipment as well as directing the deck crew while underway. Demonstrate competency, proficiency and confidence in navigating a vessel without guidance. Includes 12-hour voyages weekly aboard SMA’s training vessels. Prereq: MGO 133.

MGO 177 (6) C
Advanced Engineering Practicum
Advanced underway practicum. Under supervision, assume the role of Designated Duty Engineer aboard ship and be responsible for all facets of the operation of the engine room and related equipment while the training vessel is underway. Demonstrate competency, proficiency and confidence in running an engine room without guidance. Involves weekly 12-hour voyages aboard SMA’s training vessels. Prereq: MGO 147.

MGO 200 (1-5) C
At Sea Internship
Provides real-world at-sea experience on vessels of at least 500 gross tons that operate beyond the boundary line. During 30-60 day internship demonstrate mastery of the competencies outlined in Table A-II/4 of STCW for ratings forming part of navigational watch or Table A-III/4 of STCW for ratings forming part of an engineering watch.
MRT 101 (14) C  
Intro to Composites  
Introduces fiberglass boatbuilding as well as wood joinery. Students work in teams to lay up, by hand, a complete fiberglass hull and then trim it with wood. Industry standards in safety and production will be modeled. Prereq: WCO 110 with a minimum GPA of 2.0.

MRT 102 (4) C  
Intro to Marine Electric  
Introduces basic AC and DC electrical systems as found on recreational and small commercial vessels. Safe installation and troubleshooting of engine starting and charging systems, DC house systems for lights, pumps, navigational gear, and shore power AC systems. Prereq: WCO 110 with minimum GPA 2.0.

MRT 103 (10) C  
Wooden Boat Repair  
Construction and repair of both contemporary and traditional wooden boats. Topics include tools, wood types, adhesives, pattern making, and interior joinery on wood and composite vessels. Personal and shop safety are emphasized. Prereq: MRT 101 and MRT 102 with a minimum GPA 2.0 for each course.

MRT 104 (8) C  
Marine Mechanical  
Introduces basic gas and diesel engine operating principles, service, maintenance, and troubleshooting. Course also covers marine sanitation systems, various marine pumps, and plumbing. Prereq: MRT 101 and MRT 102 with a minimum GPA 2.0 for each course.

MRT 105 (14) C  
Advanced Composites  
Complex fiberglass boatbuilding and repair problems, including repair of damaged fiberglass structures, plug and mold building, and advanced composites, including resin infusion. Direct hands-on experience in safe and productive use of machinery and supplies is emphasized. Prereq: MRT 103 and MRT 104 with a minimum 2.0 GPA for each course.

MRT 106 (4) C  
Marine Electrical II  
Advanced vessel electrical systems, sizing of battery banks, AC battery charging systems, inverter systems, engine operation gauge systems, gen-sets, and galvanic corrosion. Preparation for ABYC Marine Electrical Certification exam. Prereq: MRT 103 and MRT 104 with a minimum 2.0 GPA for each course.

MRT 108 (10) C  
Advanced Wooden Boat  
Provides the opportunity to build one’s own boat or undertake a more comprehensive boat-restoration project. Emphasis is on performance in a professional manner in safety and project execution. Course is optional. Prereq: MRT 105 and MRT 106 with a minimum GPA of 2.0 for each course.

MRT 109 (5) C  
Custom Wooden Boat  
Provides the opportunity to build one’s own boat or undertake a more comprehensive boat-restoration project. Emphasis is on performance in a professional manner in safety and project execution. Course is optional. Prereq: MRT 105 and MRT 106 with a minimum GPA of 2.0 for each course.

MRT 110 (5) C  
Advanced Diesel Engines  
A course in marine diesel engines that includes theory, operation, troubleshooting and repair. Students will learn fundamental operating procedures for marine diesel engines. Instructional format combines classroom lectures with applied training in diesel engine labs.

MRT 202 (2) C  
Stability  
Covers principles, terms and procedures used in the determination of transverse, longitudinal and damage stability of ships. Includes physical laws affecting a floating body, effects of cargo operations, loose water, fuel consumption, grounding and flooding on vessel stability. Includes analyses of case studies involving loss of stability and how to perform trim and stability calculations.

MRT 210 (2) C  
Marine Meteorology  
A non-mathematical intro to meteorology with specific emphasis on marine applications. Focuses on ocean weather phenomena as they impact vessel operations and the role of the ship’s officer in observing, recording and analyzing developing weather patterns.

MRT 212 (4) C  
Auxiliary Machinery & Ship Design  
Intro to auxiliary machinery and naval architecture. Includes heat exchangers, pumps, air ejectors, steering gear, distilling plants, pressure vessels, piping systems, cargo handling equipment, vessel design, vessel structure and stability.

MTS 217 (4) C  
Diesel Engine Maintenance  
A course in marine diesel engines that includes theory, operation, troubleshooting and repair. Students will learn fundamental operating procedures for marine diesel engines. Instructional format combines classroom lectures with applied training in diesel engine labs.

MTS 221 (4) C  
Applied Marine Electric  
An applied course in AC and CD motors and generator applications. In this course the student will apply AC and DC electrical theory to typical marine equipment. Topics covered include: 3-phase circuits and transformers, DC machines, AC machines, batteries and power electronics. The student receives practical experience in operating marine electrical equipment in the laboratory, on a panel board simulator and aboard ship.

MTS 223 (3) C  
Advanced Piloting & Navigation  
Continuation of MGO 123. Emphasizes advanced aspects of navigation and piloting essential to ocean voyaging. Studies methods for determining ETA of CPA by distance off; learn navigational techniques for ocean sailing and perform advanced ETA computations involving time conversion. Includes use of a sextant in determining position and range, measuring speed by RPM, fuel consumption and use of the speed log.

MTS 228 (5) C  
Marine Hydraulics  
Basic survey course utilizing lectures, laboratory experiments, and practical demonstrations. Students will perform routine maintenance, troubleshooting and repair of marine hydraulic equipment. The student will be required to disassemble, analyze and re-assemble various hydraulic components.

MTS 233 (5) C  
Marine Refrigeration  
Fundamentals of refrigeration cycles, system components, common refrigerants, theory of operation and preventive maintenance techniques as they apply in the marine industry.

MTS 257 (4) C  
Advanced Diesels  
Continuation of MTS 217. Advanced training in the disassembly and rebuilding of marine diesel engines. Special emphasis on air intake systems, fuel injectors, governors, lubrication systems, cylinder wear, ring wear, piston clearances, bearing wear and crankshaft alignment. Prereq: MTS 217.
Materials Science
 MSC 101 (5) N
Intro to Materials Science
A one quarter introductory course describing the molecular structure of different materials and how that affects the materials’ macroscopic characteristics, such as tensile strength and heat transmission. The emphasis of the course is on semiconductors and their application to electronic devices. Prereq: MATH 098 and CHEM& 121.

Mathematics

Courses prepare students for advanced mathematics courses or application to work settings. Courses may include individual laboratory, lecture, or lecture/laboratory combination. Computers, graphing calculators, or both may be introduced and/or used. Collaborative learning may be emphasized. Consult with an advisor to determine how a particular class will be taught, its specific content and credits awarded.

MATH 070 (5) C,N,S
Basic Math Skills HCP
Designed for advanced ESL (level 5 and above) and ABE students who plan to enter Allied Health programs at North Seattle. Includes math and critical thinking skills needed for success in health care courses at North. Covers whole numbers, fractions, decimals, ratios, percents, metrics, graphs, basic accounting, and medicinal calculations. Particular attention is given to the healthcare context. Prereq: Instructor permission.

MATH 080 (5) C,N,S
Preparatory Mathematics
Computer-based, self-paced math course covering all topics from Basic College Mathematics through Intermediate Algebra. Provides an opportunity to accelerate through the developmental math sequence. Online access code required. Currently requires eligibility for MATH 081, 084, 085, 087, or 096. Beginning Spring 2016, requires eligibility for Math 081, 087, or 096.

MATH 081 (5) C,N,S
Basic Math Skills
Covers whole numbers, fractions and decimals, percent, ratio and proportion and geometry. Includes intro to algebra and discussions about math avoidance.

MATH 083 (5) N,S
Arithmetic
Course covers operations with whole numbers, fractions, decimals and signed numbers, order of operations, ratios, proportions, percents, measurement and geometry.

MATH 084 (5) N
Algebra I
Basic operations with algebraic expressions; solving and graphing linear equations and inequalities; word problems; systems of equations. Prereq: MATH 081 or higher or placement exam.

MATH 085 (5) N
Algebra II
Factoring polynomials; rules of exponents; solving quadratic equations and graphs; roots and radicals; solving rational equations; problem-solving. Prereq: MATH 084.

MATH 086 (5) N,S
Geometry I
Covers points, lines and angles, triangles, parallel lines, polygons, proofs on congruence and similarity of triangles. Calculator required. Prereq: MATH 085 with a 2.0 or higher.

MATH 087 (5) C
Foundations of Algebra
Basic concepts of algebra that form a foundation for Intermediate Algebra. Topics include evaluating expressions, properties of variables, solving basic linear equations and inequalities, graphing lines in slope-intercept form, interpreting slope and intercepts, solving systems of linear equations by graphing, basic rules of exponents, basic rules of roots, solving simple quadratic equations, and basic polynomial arithmetic. Prereq: MATH 081 with a minimum grade of 2.0 OR Placement Exam Score.

MATH 088 (5) C
Algebra in Context
A quantitative reasoning course in which ideas, concepts, and skills from algebra are applied to real-world contexts. Designed with MATH 087, to prepare non-STEM students for courses such as MATH 107, 116, and 146. Extensive collaborative learning is utilized. Mathematics is applied appropriately. Reading and writing are both central elements of the course. Prereq: MATH 087 with a minimum grade of 2.0 or Placement Exam Score or Instructor Permission.

MATH 090 (1-5) N,S
Mathematical Modules
Review class on different topics in math ranging from arithmetic to precalculus to help students meet necessary prerequisites. Taken together, MATH 091, 092 and 136 in sequence result in credit for a college-level statistics course.

MATH 091 (5) C,S
Des Statistics with Algebra 1
For non-STEM majors. First of 3 Statway courses for teaching statistics with integrated algebra. Covers concepts and methods of statistics with emphasis on data analysis, collecting data, graphical and numerical descriptions, correlation and simple linear regression. Application problems are multidisciplinary and multicultural. Completion of Statway sequence results in credit for college-level statistics course. Prereq: Eligible for MATH 084 and ENGL& 101.

MATH 092 (5) C,S
Des Statistics with Algebra 2
For non-STEM majors. Second of 3 Statway courses for teaching statistics with integrated algebra. Continuation of content from MATH 091. Completion of Statway—sequence results in credit for a college-level statistics course. Prereq: MATH 091 with 2.0 or higher or placement; eligible for ENGL& 101.

MATH 094 (5) S
Intro/Intermediate Algebra I
Covers basic math review, linear equations and inequalities in one and two variables, systems of linear equations, and exponents and polynomials. Prereq: MATH 083 or COMPASS core of 48.

MATH 095 (5) S
Intro/Intermediate Algebra II
Covers factoring and the use of factoring to solve equations; quadratic equations and methods to solve them; simplifying and solving rational expressions; basic math review, linear equations and inequalities in one and two variables, systems of linear equations, exponents and polynomials. Prereq: MATH 094.

MATH 096 (2) C
Preparation for Intermediate Algebra
A bridge course between the Foundations of Algebra course (MATH 087) and our Intermediate Algebra course (MATH 098). Designed for future STEM majors and those wishing to fulfill an Intermediate Algebra (MATH 098) prerequisite for transfer to a 4-year institution. Covers polynomial math, square root math, solving quadratic equations, and graphing parabolas. Prereq: MATH 87 with minimum grade of 2.0, or placement exam, or instructor permission.
MATH 097 (5) C,N
Elementary Algebra
Fast-paced, for those with previous success in algebra. Includes linear and quadratic equations and graphs, inequalities, exponents, polynomials, rational expressions and radicals. Prereq: Placement exam.

MATH 098 (5) C,N,S
Intermediate Algebra
Covers real number system, polynomial and rational expressions, exponents and radicals, first and second degree equations, linear systems of equations and graphs. Intro to functions and logarithms. Prereq: Placement or Math 085 or Math 097 with 2.0 or better. Prereq: One year of high school algebra and placement exam, or Math 087 and Math 096 with 2.0 or better, or Math 084 and Math 96 with a 2.2 or higher, or permission of instructor (C).

MATH 102 (5) C,N,S
College Algebra

MATH 103 (5) N
Geometry & Visualization
Uses physical and computer constructions to investigate Euclidean and some non-Euclidean geometry in 2 and 3 dimensions. Covers point, line and plane symmetry with examples from tilings, rosette groups, wallpaper patterns and symmetries of Polyhedra. Includes Platonic and Archimedean solids and the geometry of perspective drawing. Prereq: Math 098 or placement test.

MATH 104 (3) N
Trigonometry
For students with no high school trigonometry or who need a review. Elementary plane geometry, right triangle trigonometry, general angles, identities, equations and selected topics. Prereq: Math 098 or placement exam.

MATH 106 (5) N
Applied Algebra/Trigonometry I
Focuses on mathematical models and their applications. Includes study of right triangle trigonometry, introductory vector applications, linear functions, systems of equations and inequalities, quadratic functions, rational expressions and models, integral and rational exponents and radical and complex numbers. Equivalent in skill level to Math 098. Prereq: Math 097 or equivalent or placement test.

MATH & 107 (5) C,N,S
Math In Society
Primarily for liberal arts majors. Designed to enhance mathematics literacy. Instructors choose college-level topics centered around a theme such as Environmental Math, History of Math, or General Topics in Math. Fulfills QSR requirement for A.A. degree. Minimum 2.0 required to meet Intermediate Algebra proficiency and QSR. Prereq: Math 098 or placement exam. Prereq: Completion of Math 088 or 098 with a 2.0 or better or placement exam (C).

MATH 110 (3) C,N,S,V
Applied Math for Technician
Emphasis on applications of mathematics to vocational and technical courses. Prereq: Satisfactory performance on Math placement test.

MATH 111 (1-5) N,S
Applied Mathematics I
Intro to applied algebra, geometry and trigonometry. Includes algebraic operations, integral exponents, scientific notation, dimensional analysis, metric system, radicals, calculator fundamentals, first-degree equations, plane and solid geometry, solution of right triangles, systems of equations, graphs, determinants and applications. Prereq: Satisfactory performance on Math placement test.

MATH 112 (5) N,S
Applied Mathematics II
Includes factoring, algebraic fractions, fractional and quadratic equations, rational exponents, operations with radicals, oblique triangles, law of sines and cosines and trigonometric graphs. Prereq: Math 111 or permission.

MATH 113 (5) N
Applied Mathematics III
Covers vector analysis, resolution of vectors, properties of logarithms, exponential and logarithmic equations, radical equations, analytic geometry, statistics, inequalities and applications. Prereq: Math 112 or permission.

MATH 115 (3) N
Solution Word Problems/Algebra
Helpful in business, technical, physics and college transfer courses. Covers systematic techniques for solution of algebraic word problems. Prereq: Math 085 or concurrent enrollment.

MATH 116 (5) N
Applied Math to Management Life Sciences
Emphasizes applications to business, finance, management, or life & social sciences. Covers mathematical models, graphs and exponential and logarithmic functions. May include sure from statistics and probability. Fulfills QSR requirement for A.A. degree. Prereq: Math 098 or placement test.

MATH 118 (5) N
Applied Algebra/Trigonometry II
Activity-based math course focuses on mathematical models and their applications. Includes the study of operations on functions, mathematical variation, exponential and logarithmic functions, numbers of other bases, trigonometric representation of complex numbers, polar coordinates and the trigonometry of oblique triangles. Prereq: Math 098 or Math 106.

MATH 119 (3) C
Math Behind Information Technology
Learn basic aspects of discrete mathematics common to information technology: scientific notation; binary and hexadecimal number systems; logical operations and the design of logical networks; set theory; relations and functions; combinatorics; graphs and directed graphs; regular expressions; and finite-state machines.

MATH 120 (5) N
Elementary Functions
Studies the general nature of functions: polynomial, rational, exponential, logarithmic and trigonometric. Fulfills QSR requirement for A.A. degree. Prereq: Math 102 or Math 098 (with grade of 3.5 or better) and high school trigonometry or placement.

MATH & 131 (5) N,S
Math for Elementary Education 1
Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including computing with whole numbers, fractions, decimals and percents; multiplicative comparisons and reasoning; ratio, rates, and proportions; negative numbers; algebra and graphing; relationships between time, distance and rate; patterns and functions. Fulfills QSR requirement for A.A. degree. Prereq: Math 098 with 2.0 or higher.
Course descriptions

MATH& 132 (5) N,S
Math for Elementary Education 2
Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including polyhedra, polygons, symmetry, tessellations, size changes, curves and curved surfaces, transformations, length, angles, area and surface area, volume, measure formulas, quantifying uncertainty, simulating probabilistic situations; sampling; and organizing and interpreting data with one and two variables. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or 131 or permission.

MATH 136 (5) C,N,S
Inferential Statistics
For non-STEM majors. Third of 3 Statway courses (MATH 091, 092, 136) for teaching statistics with integrated algebra. Continuation of content from MATH 092. Completion of Statway sequence results in credit for a college-level statistics course. Fulfills QSR requirement for A.A. degree through 2015 only. Prereq: MATH 092 with 2.0 or higher or permission; eligible for ENGL& 101.

MATH& 141 (5) C,N,S
Precalculus I
The sequence Math& 141 and Math& 142 covers polynomial, rational, exponential and logarithmic functions; related functional and algebraic topics; topics in analytic geometry; systems of equations; trig and inverse trig functions; right triangle and oblique triangle trig; polar coordinates; vectors; and related trig applications. Fulfills the QSR requirement for A.A. degree. Prereq: MATH 095 or Math 098 with a 2.5 or higher; MATH 102 with a 2.0 or higher (S); or Placement test.

MATH& 142 (5) C,N,S
Precalculus II
The sequence Math& 141 and Math& 142 covers polynomial, rational, exponential and logarithmic functions; related functional and algebraic topics; topics in analytic geometry; systems of equations; trig and inverse trig functions; right triangle and oblique triangle trig; polar coordinates; vectors; and related trig applications. Fulfills the QSR requirement for A.A. degree. Prereq: MATH 095 or Math 098 with a 2.5 or higher; MATH 102 with a 2.0 or higher (S); or Placement test.

MATH& 146 (5) C,N,S
Introduction to Stats
(Formerly MATH 109) Covers descriptive methods, probability and probability distributions, samples, decisions, hypothesis testing and statistical inferences. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

MATH& 148 (5) C,N,S
Business Calculus
Differential and integral calculus with emphasis on polynomial, rational, exponential and logarithmic functions. Draws applications from social sciences, biology, medicine and ecology with special emphasis on business and economic applications. Fulfills QSR requirement for A.A. degree. Prereq: MATH 116 or Math& 141, with a 2.0 or better.

MATH& 151 (5) C,N,S
Calculus I
The sequence MATH&151, &152 and &163 covers limits, differential calculus and its applications, integral calculus and its applications, intro to differential equations, series including Taylor series, vector geometry in three dimensions, multivariable calculus, partial differentiation, double integrals in Cartesian and polar coordinates and applications. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 142 or placement test or MATH 120 (N).

MATH& 152 (5) C,N,S
Calculus II
The sequence MATH& 151, &152 and &163 covers limits, differential calculus and its applications, integral calculus and its applications, intro to differential equations, series including Taylor series, vector geometry in three dimensions, multivariable calculus, partial differentiation, double integrals in Cartesian and polar coordinates and applications. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 151.

MATH& 163 (5) C,N,S
Calculus 3
The sequence MATH&151, &152 and &163 covers limits, differential calculus and its applications, integral calculus and its applications, intro to differential equations, series including Taylor series, vector geometry in three dimensions, multivariable calculus, partial differentiation, double integrals in Cartesian and polar coordinates and applications. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 151.

MATH 198 (1-5) C,N,S,V
Mathematics Workshop
A problem-solving workshop using math topics considered appropriate by the instructor. May include study skills, note-taking systems, test-taking strategies and group problem-solving approaches.

MATH 211 (5) N
Elements of Statistics
Statistical estimation, and confidence intervals; t-tests and chi-square tests; linear regression theory; the analysis of variance. Prereq: MATH 116 or MATH& 141 with a 2.0 or higher or placement test.

MATH 215 (2) N
Word Problems for Math& 151
Covers word problems. Develops critical thinking skills to transition between applied and theoretical calculus. May use new technologies for problem-solving. Enhances skills necessary to compete more successfully in math/science programs at four-year schools. Coreq: MATH& 151.

MATH 216 (5) N
Word Problems Math& 152
Covers word problems. Develops critical thinking skills and bridges the gap between applied and theoretical calculus. May use new technologies for problem-solving. Enhances skills necessary to compete more successfully in math/science programs at four-year schools. Coreq: MATH& 152.

MATH 220 (5) C,N,S
Linear Algebra
Intro to linear algebra and its implications. Includes systems of linear equations, matrices, determinants, vector spaces, inner product spaces, eigenvalue problems, and similarity transformations. Prereq: MATH& 163 with a 2.0 or higher or permission.

MATH 224 (5) C,N,S
Vector Calculus
Continuation of MATH& 163. Includes vector-valued functions, vector fields, line and surface integrals and the theorems of Green, Gauss and Stokes, vector operators and the extension of the calculus to the vectors in 2-D and 3-D space. Prereq: MATH& 163 with a 2.0 or higher or permission.

MATH 238 (5) C,N,S
Differential Equations
Covers first order differential equations, second order differential equations, their applications, and Laplace transforms. Covers the elementary theory of differential equations and the interrelationship between pure mathematics and applied mathematics. Prereq: MATH& 152 or higher; MATH& 163 strongly recommended.
Finding Courses

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

Prefix to Name
HIN Watch Technology

Name to Prefix
Watch Technology HIN

Common Course Numbering explanation is on page 224.

Math 239 (5) N
Linear Systems of Differentials

Math 298 (1-5) C,N,S
Special Topics in Math
Problem-solving for special math topics. Prereq: Permission.

Math 299 (1-5) C,N,S
Independent Study
Independent study of problems or topics of special interest. Prereq: Permission.

Mechanical Engineering Technology

Met 102 (4) S
Creative Tech Problem Solving
Intro to systematic procedures for engineering problem-solving. Review of basic math principles, geometry, algebra, trigonometry and basic physical principles related to analysis of technical engineering problems.

Met 181 (5) S
Wire Harness Construction
Second of three module course. Designed to give hands-on experience in the development of basic skills in wire harness construction techniques. Upon completion, student will be able to enter employment were basic wire harness skills are essential.

Met 205 (4) S
Technical Statics
Study of forces and force systems in equilibrium. Includes analysis for forces in trusses, frames and machine components; friction; location of centroids; and evaluation of area moments of inertia. Prereq: Math 113.

Met 210 (4) S
Tech Strength Materials
Studies principles of tension, compression and shear stress to determine the correct size for structural beams and shafts. Examination of distribution and magnitude of stress in welded and riveted joints, thin-walled cylinders, torsional members and beams. Prereq: Met 205.

Met 220 (4) S
Basic Hydraulics
Intro to the various components used in industrial hydraulic systems. Includes construction, characteristics, schematic symbols and typical applications. Build a hydraulic circuit with actual components in the fluid power laboratory.

Met 289 (10) S
Topics – Mech Engineering
Special topics for individual or group study in the mechanical engineering technology field. Prereq: Permission.

Medical Administrative Assistant

MaA 179 (3) V
MAA Scope and Practice
Introduction to foundational information relative to healthcare and the Medical Administrative Assistant’s role. The healthcare industry, health information management, privacy in the physician’s office, health insurance and medical practice marketing are included in this course. Prereq: Permission.

MaA 195 (2.5) V
MAA Practicum
An unpaid, required, 80-hour supervised practicum/externship opportunity to apply basic outpatient administrative and clinical skills in an ambulatory care/clinic setting. Practicum opportunities are decided through a competitive interview process. The acceptance to a clinic practicum site is a part of the educational process of the Medical Administrative Assistant program and does not guarantee employment. Prereq: Permission.

MaA 196 (1) V
MAA National Exam Prep
This course prepares students for the Medical Administrative Assistant national certification examination through the National Health Career Association, (NHA). Students will utilize knowledge they have acquired throughout the Medical Administrative Assistant program. Prereq: Permission.

Medical Assisting

AMA 100 (3) N
Intro to Healthcare
Provides students with an overview of the various medical specialties, types of practices and the members of the healthcare team. Personal characteristics, certification and professional organizations and career opportunities are explored. The role of managed care is discussed. A brief history of medicine as well as the effects of attitudes and culture on the delivery of healthcare is also presented. Critical thinking for the Medical Assistant will be emphasized.

AMA 101 (3) N
Intercultural Communication
Students will be introduced to various methods of effective communication, both oral and written. Basic psychology related to communication in healthcare is addressed and also includes cultural perspectives on illness, life threatening illness, stress and burnout. The intent of this course is to focus on effective communication skills required in a medical setting in order to recognize individual needs and adapt communication accordingly to insure accuracy and quality of information.
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<th>Title</th>
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<td>Medical Law and Ethics</td>
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<td>AMA 106</td>
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<td>AMA 107</td>
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<tr>
<td>AMA 115</td>
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<td>AMA 116</td>
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<td>Principles of IV Therapy</td>
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<td>Front Office Basics</td>
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<tr>
<td>AMA 121</td>
<td>1</td>
<td>Patient Scheduling</td>
</tr>
</tbody>
</table>
AMA 122 (1) N
Medical Records & Correspondence
Addresses the scope of medical records procedures, from how to initiate a new patient chart to entering data in the chart. Covers legal aspects, various types of filing systems and types of reports filed in a medical record. Intro to types of business correspondence, computer applications, USPS rates and regulations and faxing.

AMA 123 (1) N
Daily Financial Management
Learn medical practice daily financial tasks including both manual and computerized bookkeeping, banking documents and functions. Covers common tasks such as using petty cash and purchasing, accounts receivable and working with credit procedures.

AMA 125 (5) N
Intro to Medical Insurance Coding
Provides knowledge of medical insurance and the terminology necessary to understand and submit claims. Compares various types of medical insurance including PPOs, HMOs, Medicare, Medicaid, Tricare. Teaches basic skills in CPT, ICD9/10, and HCPC coding. Also discusses DRGs, RBRVS, drug formularies, referrals, use of a fee schedule, and legal and ethical issues.

AMA 140 (5) N
Patient Care
Students will learn the theory and practice of patient care including vital signs and the practices of charting, initiating patient records, and electronic medical records. Includes study of how to screen and evaluate the urinary, digestive, sensory, musculoskeletal, and neurological systems in a physical exam. Course covers aspects of prenatal, infant, child, and adult care.

AMA 170–181 (2) N
AP/Terminology/Pathology I
AMA 170-181 is a series of individual 1-unit courses which introduce anatomy, physiology, pathology, tests and treatments. Study basic medical word structure and language and practice spelling and pronunciation in each course.

AMA 226 (1) N
Medical Insurance Coding I
Provides practice in performing various medical insurance coding projects utilizing knowledge and skills obtained in AMA 125. Practice performing primarily ICD-9 and CPT coding, but includes all aspects of coding to simulate the process in an ambulatory health care setting. Prereq: AMA 125.

AMA 227 (2) N
Medical Insurance Billing
Provides advanced practice in performing medical insurance billing using skills obtained in AMA 125. Practice more complex medical insurance billing to build coding skill and accuracy. Prereq: AMA 125 and AMA 226 (AMA 226 may be taken concurrently) or permission.

AMA 230 (3) N
Medical Office Management
Introduction to managing a medical office. Explore management styles, teamwork, supervision, time management, marketing, financial management, facility management and liability coverage. Create a procedure manual. Covers HR policies, hiring, training, evaluating, dismissing employees, personnel records and laws.

AMA 231 (3) N
Pharmacology
Presented are the principles of pharmacology, which include history, origin, sources, properties, uses and effects of drugs on patients. Uses and names of drugs, regulations and legal classifications, the PDR and other drug reference sources will be covered. Includes drug actions, routes of administration and forms of drugs, the storage and handling of medications (including controlled substances), and emergency medications.

AMA 232 (4) N
Sterile Procedures
The student will learn theory and procedures for assisting a physician with minor surgery. Included are asepsis and sterile principles, surgical methods and common procedures, instruments, equipment, supplies, sterile field setup, and the process of sterile procedure. The vital areas of patient education and consent, preparation and post-procedure follow-up care are also a focus. Includes information on the roles of the CDC and OSHA.

AMA 233 (4) N
Diagnostic Procedures
Introduction to diagnostic imaging radiation therapy and nuclear medicine. Includes safety, contrast media, patient preparation and positioning. Students learn theory and practical procedures in performing a standard electrocardiogram including equipment, lead placement, basic interpretation of emergency conditions, the cardiac cycle and its relation to the tracing, and artifacts. Covers basic theory of a stress EKG and Holter monitor exams related to spirometry.

AMA 234 (3) N
Phlebotomy
The student will learn theory and practical procedures for blood collection by venipuncture and capillary puncture. The anatomy and physiology of the cardiovascular system, equipment needed for venipuncture and technique are covered. This course also includes patient interaction, selecting the proper site, safety, evacuated tube vs. syringe method, the use of a butterfly collection system, capillary puncture and troubleshooting the unsuccessful venipuncture.

AMA 235 (4) N
Laboratory Skills
Covers safety and regulations concerning the physician’s office laboratory, the importance of urinalysis in the diagnosis and treatment of various diseases and how to correctly perform a urinalysis. Students are introduced to the basics of microbiology/chemistry as related to the medical assistant in a physician’s office laboratory. Also includes CLIA waived lab testing theory, procedures and values, as well as the practical application of skills.

AMA 236 (2) N
Credentials Preparation
Medical Assisting students for the CMA exam and applying for Washington State credentials. Includes job search and professional skills such as writing a resume and cover letter, completing applications, interviewing, and professionalism. Students will learn to develop a job search strategy and prepare for externships. Mock interviews are done to prepare the student for a real interview and a portfolio is created to show at interviews.

AMA 240 (1) N
Gynecology Pediatrics
Learn the theory and practice of assisting with typical OB/GYN and pediatric office visits and procedures. Includes prenatal visits, pregnancy complications, parturition and postpartum, GYN exam, measuring, vital signs, collecting specimens, screening hearing and vision and common childhood disorders.

AMA 241 (1) N
Male Reproductive/Gerontology
Presents various disorders, exams and procedures of the male reproductive system. Covers gerontology, including facts and biases about aging, physiological and psychological changes in each body system. Also addressed are memory- or visually-impaired elderly patients and the issue of elder abuse. Prereq: Health requirements.
AMA 242  (2)  N  
Exams by Body Systems
Theory and practice in various examinations and procedures grouped by body system. Includes urinary catheterization, spirometry, visual acuity, irrigations, casting and cast removal, sputum collection and oxygen administration. Presents signs and symptoms of diseases in each system. Prereq: Health requirements.

AMA 243  (1)  N  
Rehabilitation
Intro to using physical and mechanical agents to aid patients. Covers the principles of body mechanics for the health care worker as well as transferring patients, assisting with ambulation and using assistive devices, therapeutic exercises and modalities. Emphasizes safety. Prereq: Health requirements.

AMA 244  (1)  N  
Intro to Imaging
Intro to diagnostic imaging with an emphasis on radiology. Includes ultrasound, PET and CT scans, as well as MRI, radiation therapy and nuclear medicine. Radiology includes safety, contrast media, patient preparation and positioning.

AMA 245  (2)  N  
Minor Surgery
Learn theory and procedures for assisting a physician with minor surgery. Includes asepsis and sterile principles, surgical methods, common procedures, instruments, equipment, supplies, sterile field setup and the process. Focuses on the vital areas of patient education and consent, preparation and post-procedure follow-up care. Prereq: Health requirements.

AMA 246  (1)  N  
Patient Prioritizing Instruction
Covers accurate prioritizing of patients and good patient instruction. Using effective oral and written communication, learn to prioritize a patient's needs by phone or in-person and to interview them. Explain general office policies and general information, instruct in health maintenance, teach about disease prevention and locate community resources.

AMA 250  (5)  N  
Medication Administration
Learn theory and practical procedures in calculating medication dosages and administering medications. Includes legal and ethical factors, the medication order or prescription, dosages, drug labels, calculating dosages, the six rights of drug administration, and various routes to deliver medications. Practice giving oral medications, various parenteral routes and injections intradermally, subcutaneously and intramuscularly.

AMA 251  (1)  N  
EKG
Learn theory and practical procedures for performing a standard electrocardiogram. Includes the equipment, lead placement, basic interpretation of emergency conditions, the cardiac cycle and its relation to the tracing and artifacts. Includes the basic theory of a stress EKG and Holter monitor, although not practiced. Prereq: Health requirements.

AMA 252  (2)  N  
Phlebotomy
Learn theory and practical experience in procedures for blood collection by venipuncture and capillary puncture. Covers the anatomy and physiology of the cardiovascular system, equipment needed and technique. Includes patient interaction, site selection, safety, evacuated tube vs. syringe method, use of a butterfly collection system, capillary puncture and troubleshooting the unsuccessful venipuncture. Prereq: Health requirements.

AMA 253  (1)  N  
Hematology
Learn the theory and practical procedures in hematology testing for the physician’s office laboratory. Tests include white and red blood cell counts, white cell differential, erythrocyte indices, erythrocyte sedimentation rate and automated hematology. Also covers specimen preparation, testing, quality assurance, normal ranges of results and documentation. Prereq: Health requirements.

AMA 254  (1)  N  
Urology
Covers the importance of urinalysis in the diagnosis and treatment of various diseases and how to correctly perform a urinalysis. Includes safety, quality control, equipment and supplies, collection methods and the examination of urine physically, chemically and microscopically. Prereq: Health requirements.

AMA 255  (1)  N  
Basic Microbiology
Intro to the basics of microbiology as related to the medical assistant in a physician’s office laboratory. Includes classification, cell structure, equipment, safety, specimens, collection procedures and the microscopic examination of bacteria. Covers culture media and the microbiological culture, biochemical tests, identification systems, sensitivity testing, parasitology and mycology. Prereq: Health requirements.

AMA 256  (1)  N  
Specialty Lab Tests & Chemistry
Includes a variety of lab tests not covered elsewhere including pregnancy testing, infectious mononucleosis, blood typing, semen analysis, phenylketonuria, tuberculosis, blood glucose, cholesterol, triglycerides and blood urea nitrogen (BUN) testing. Learn theory, procedure, equipment, supplies, values and safety. Perform the tests in the classroom laboratory. Prereq: Health requirements.

AMA 290  (9)  N  
MA Externship
Provides the opportunity to practice Medical Assisting skills and gain valuable experience in the ambulatory health care setting. Share experiences and information with peers and instructors. On site, the student is guided by the externship site supervisor in performing various administrative and clinical tasks as expected of an entry-level medical assistant. Requires 198 unpaid hours in the clinical setting. Includes review and preparation for the CMA exam.

Medical Assisting Pathology

AHM 101  (1)  N  
Pathology 1
Series of 5 one-unit courses (to total 5 credits of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.

AHM 102  (1)  N  
Pathology 2
Series of 5 one-unit courses (to total 5 credits of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.
AHM 103 (1) N
Pathology 3
Series of 5 one-unit courses (to total 5 credit units of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.

AHM 104 (1) N
Pathology 4
Series of 5 one-unit courses (to total 5 credits of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.

AHM 105 (1) N
Pathology 5
Series of 5 one-unit courses (to total 5 credits of Pathology) which cover a basic review of terminology, structure and basic anatomy, including cavities, regions, anatomical planes and directional terms for various systems and their related tests and procedures.

AHM 117 (1) N
Intro to Lab Clinic Safety
Covers safety, state and federal laws, regulations, organization, personnel and testing procedures of a laboratory. Includes requisitions, reports, specimen collection, infection, inflammatory and immune responses, infectious disease, standard precautions and quality control.

AHM 118 (1) N
Intro to Patient History
Covers medical records: starting a chart; entering data; charting methods; legal aspects; confidentiality; types of filing systems; and types of reports. Includes patient history and important information and components of a physical examination.

AHM 124 (1) N
Intro to Medical Transcription
Intro to the career of medical transcription and the American Association for Medical Transcription. Covers transcription equipment and tools, basic guidelines, reports that are transcribed, turnaround time and correcting work. Presents the laws and ethics of medical transcription. Prereq: Successful completion of medical terminology or permission.

AHM 140 (1) N
Phlebotomy 2
Presents more advanced techniques and increased skills in phlebotomy and difficult blood draws. Builds on skills learned in AMA 252. Prereq: AMA 252; health requirements.

AHM 141 (1) N
Lab Equipment/Measurement
Intro to lab equipment, measurements and calculations related to lab specimen collection, processing and testing. Learn how math is used in collecting and preparing specimens, the use of military time, preparing reagents, dilution of specimens and calculating amount of preservative needed. Prereq: Assessment test score or placement into MATH 084/085 or 097 or higher; health requirements.

AHM 142 (1) N
Non-Blood Specimen Collection
Covers knowledge and skills required to obtain specimens of body fluids or tissues other than blood. Includes techniques for collecting stool, sputum, urine, wound cultures and the preparation and testing of such specimens. Practice with other students. Prereq: Health requirements.

AHM 151 (1) N
OB GYN Pediatric Theory
Learn theory of typical OB/GYN and pediatric office visits and procedures. Includes prenatal, pregnancy complications, parturition and postpartum, GYN exam and related conditions and procedures, measuring an infant or child, taking vital signs, collecting specimens, screening hearing and vision and common disorders of childhood.

AHM 152 (1) N
Theory of Exams by Body
Covers theory in various examinations and procedures grouped by body system, such as urinary catheterization, spirometry, visual acuity, irrigations, casting and removal, sputum collection and oxygen administration. Also includes symptoms of diseases in each system and intro to pathology.

AHM 153 (1) N
Theory of Medical Calculations Administration
Learn theory of calculating dosages and administering medications. Includes legal and ethical factors, medication order or prescriptions, dosages, drug labels, the six rights of drug administration and various routes to deliver medications.

AHM 154 (1) N
EKG Theory
Covers theory and practicum of a standard electrocardiogram, including equipment, lead placement, basic interpretation of emergency conditions, the cardiac cycle and its relation to the tracing and artifacts. Covers basic theory of a stress EKG and Holter monitor.

AHM 155 (1) N
Phlebotomy Theory
Learn theory for blood collection by venipuncture and capillary puncture, anatomy and physiology of the cardiovascular system, equipment needed for venipuncture and techniques.

AHM 160 (1) N
Proofreading and Editing
Provides the basic skills for proofreading and editing medical documents, including language mechanics, steps of editing, proofreading guidelines and standard notations. Addresses legal and ethical considerations, such as editing that will not alter meaning and context. Prereq: Completion of medical terminology course or permission. Type 25 wpm and know MS Word.

AHM 161 (1) N
Medical Transcription Practice 1
Provides practical experience in medical transcription and completing medical reports using recorded dictation. Use AHM 124 skills and word processing to produce accurate documents with increasing speed. Prereq: AMA 124 or permission.

AHM 162 (1) N
Medical Transcription Practice 2
Gain complex practical experience in transcribing various medical reports using recorded dictation. Prereq: AHM 161 or permission.

AHM 163 (1) N
Medical Transcription Practice 3
Gain complex practical experience in transcribing various medical reports using recorded dictation. Build speed and accuracy transcribing a wide variety of documents. Prereq: AHM 162.
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<th>Description</th>
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<td>MTA 161</td>
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<td>V</td>
<td>Blueprint Reading</td>
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<td>MTA 164</td>
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<td>Road Flagging</td>
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<td>Construction Trades Training I</td>
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<td>Tools/Material Identification/Handling</td>
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<tr>
<td>MTA 175</td>
<td>2</td>
<td>V</td>
<td>Forms and Grades</td>
</tr>
<tr>
<td>MTA 176</td>
<td>2.5</td>
<td>V</td>
<td>Trades Math II</td>
</tr>
<tr>
<td>MTA 177</td>
<td>2</td>
<td>V</td>
<td>Fitness and Nutrition I</td>
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<tr>
<td>MTA 178</td>
<td>2.5</td>
<td>V</td>
<td>Fitness and Nutrition II</td>
</tr>
<tr>
<td>MTA 179</td>
<td>1</td>
<td>V</td>
<td>OSHA 10</td>
</tr>
</tbody>
</table>

Medical Vocabulary

**AHI 100** (3) N
Intro to Medical Vocabulary
General survey of medical terminology introducing health service workers to the basic rules and fundamentals in medical vocabulary-building.

Meteorology

**MEY 100** (5) C
Meteorology
Intro to the composition, structure, motions and origin of the atmosphere; forecasting; climates and how they have changed through time; and effects of human activities on weather and climate.

**MEY 298** (5) C
Special Topics
Seminar on selected topics or activities in meteorology. Prereq: MEY 100 or permission.

**MEY 299** (5) C
Independent Study
Independent study of approved topics in meteorology. Prereq: MEY 100 and permission.

MTA – Pre-Apprenticeship Construction Training

**MTA 100** (1) V
Strategies for Success for PACT Students
Explore opportunities for greater academic, professional and personal success. Learn that change is possible, using tools to develop cognitive skills so change can take place.

**MTA 160** (2) V
Construction Job Skills
Study workplace issues, develop professional attitudes and workplace ethics, and learn how to survive in today’s working environment.

**MTA 161** (5.5) V
Construction Job Readiness
Prepare for entry-level employment as a beginning apprentice in a building/construction trade. Focuses on job hunting materials and skills, entry requirements for various trades, and knowledge of the union apprenticeship system.

**MTA 162** (6) V
Trades Math I
Review fundamentals and develop competency in basic mathematical/arithmetic functions with applications to building/construction trades.

**MTA 163** (3.5) V
Blueprint Reading
Learn basic blueprint terms and symbols and follow the plan in a construction application.

**MTA 164** (0.5) V
Industrial First Aid/CPR
Covers cardiopulmonary resuscitation (CPR) and basic industrial first aid as it applies to the building and construction trades. Learn to apply correct life saving techniques, assess and treat the sick and injured.

**MTA 165** (0.5) V
Road Flagging
Prepare for road flagging certification. Learn to establish and maintain a safe traffic flow in a construction zone, understand hazardous and safe behaviors in flagger situations, and review material to successfully pass the Washington State 3-year flagger certification examination. Continuing Education class.

**MTA 166** (3) V
Construction Trades Training I
Survey of skills and responsibilities of 12 building/construction trades. Visit the training centers of several trades: carpentry, laborer, electrician, plumber, drywall installer, brick layer, painter, cement mason, sheet metal worker, and ironworker.

**MTA 168** (3.5) V
Construction Trades Training II
Intro to terminology of carpentry trade. Includes basic components and methods of frame construction and wallboard installation; accurate measuring techniques using appropriate tools; proper use of hand and power tools; workplace safety and protection from falls.

**MTA 169** (2) V
Construction Trades Training III
Continuation of MTA 168. Includes more skill training, construction safety and hands-on experience through community projects.

**MTA 170** (2) V
Asset Preparation
Review and/or learn language arts, mathematical computation and reading comprehension skills to achieve at least minimum required test scores of the ASSET exam for placement into apprenticeship. Practice taking tests.

**MTA 172** (1) V
Forklift Operation & Control
Covers functions and parts of a forklift, OSHA forklift regulations, safety habits, and proper picking, placing, and moving of a variety of loads through a work site. Take the test to become an OSHA certified forklift operator, a federal requirement in industry.

**MTA 174** (2) V
Tools/Material Identification/Handling
Intro to construction-related tools and building materials. Learn proper use of tools and materials: lumber, brick, blocks, scaffolds, wheelbarrows, and shovels. Emphasizes occupational safety.

**MTA 175** (2) V
Forms and Grades
Learn form-building for pouring concrete, including proper techniques of measuring, digging, compacting, leveling, laying out and building concrete forms.

**MTA 176** (2.5) V
Trades Math II
Continuation of MTA 162. Develop competency and review fundamentals of general mathematics with applications to building and construction trades.

**MTA 177** (2) V
Fitness and Nutrition I
Develop competency in personal dietary management and physical fitness through regular stretching and aerobic exercise to assure a more injury free and healthier career in construction.

**MTA 178** (2.5) V
Fitness and Nutrition II
Continuation of MTA 177. More stretching, dietary information, aerobic exercise and upper body strengthening exercises.

**MTA 179** (1) V
OSHA 10
Safety Occupational Safety and Health Administration regulates construction safety, and certifies workers on safety practices. OSHA 10 (first level) provides 10 hours of safety training: intro to OSHA, personal protective equipment, stairways and ladders, electrical, fall protection, confined space, scaffolds, cranes, excavations, and materials handling.
Music

MUSC 100 (5) C,S
Music in Western World
Intro to classical music. Provides an understanding of musical expression through works of the great composers. Emphasizes music listening through recordings, films and special performances.

MUSC& 105 (5) C,N,S
Music Appreciation
Intro to the human and cultural values of music through the study of compositions from the Western tradition. Examines the reciprocal influences between society and music, past and present, and the influences of world culture on Western composers.

MUSC 109 (5) S
World Beat
Study examines societal beliefs, identity, history, world view, values and aspirations expressed by selected non-Western cultures (or groups within these cultures) through music. Features both traditional and contemporary popular music.

MUSC 110 (5) C,N
Intro to World Music
Covers the music of selected societies of the world within their cultural context. Using musical concepts on a cross-cultural basis, examine various cultural areas and societies.

MUSC 113 (5) C,N
Music in the U.S.
Overview of musical developments in the United States from colonial times to the present, using live performances, videotapes and recordings. Examines contributions of ethnic/ minority groups and the relevant social issues connected with these musical experiences.

MUSC 116 (5) C,N,S
Rock Music I
Examines rock music as a musical, social, cultural, economic and political force in the United States. Emphasizes early rock music development.

MUSC 117 (5) C,S
Rock Music II
Examines rock music as a musical, social, cultural, economic and political force in the United States. Emphasis on the later decades of rock music development.

MUSC 119 (1-3) C,N
Beginning Group Instruction: Voice
Emphasis on beginning techniques of breath control, placement of tone, posture and other basic concepts. Recommended: enrollment in MUSC 125 for students without experience in reading music (C,S).

MUSC 120 (2) C
Beginning Group Instruction: Piano
Continuation of MUSC 119. Prereq: MUSC 119 or permission.

MUSC 123 (5) C,N,S
Fundamentals of Music
Intro to reading and writing music for non-majors. Builds musical knowledge and skills to complement student’s natural music ability.

MUSC 126 (2) C,N,S
Beginning Group Piano
1st Qtr Class piano for general student to develop reading skills and technical proficiency.

MUSC 127 (2) C,S
Beginning Group Piano
2nd Qtr Class piano for students with previous keyboard experience. Prereq: MUSC 126 or permission.

MUSC 128 (2) C,S
Beginning Group Piano
3rd Qtr Continuation of MUSC 127. Prereq: MUSC 127.

MUSC 130 (1-2) C,N
Individual Instruction: Voice
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 134 (1-2) C,N
Individual Instruction: Woodwinds
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 135 (1-2) C,N
Individual Instruction: Percussion
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 136 (1-2) C,N
Individual Instruction: Composition
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 137 (2) C,N
Individual Instruction: Harpsichord
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 138 (1-2) C,N
Individual Instruction: Guitar
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 139 (1-2) C,N
Individual Instruction: Harp
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 140 (1-5) C,N,S
College Choir
Focus on musicianship, vocal techniques and performance skills for the large choral ensemble through study of literature from all stylistic periods. Present one concert per quarter in various musical styles and cultures. Daily attendance required. May be repeated for up to 15 credits. Prereq: Ability to match pitch.

MUSC& 141 (5) C
Music Theory I
Covers rudiments of music notation, scales, intervals and triads, rhythmic and melodic sight-reading and dictation. Increases simple four-part writing and analysis and correlated keyboard exercises. For music majors and minors.

MUSC& 142 (5) C
Music Theory II
Continuation of MUSC& 141. Elementary harmony and ear training including 4-part harmony. Prereq: MUSC& 141 or permission.

MUSC& 143 (5) C
Music Theory III
Continuation of MUSC& 142. Prereq: MUSC& 142.

MUSC 144 (2) C
Vocal Jazz Ensemble
Small vocal ensemble which performs jazz music.

MUSC 145 (2) C
Pop Vocal Ensemble
Singing group featuring pop, Broadway show tunes and jazz. Focus on enjoyment and enrichment. Performances quarterly.
**Course Descriptions**

**SEATTLE COLLEGES**

**MUSC 146 (5) C**  
**Jazz Ensemble I**  
Jazz  
Ensemble is the Jazz performance group for Seattle Central. Participate in jazz combo, duos, trios, quartets, and big band settings. Music drawn from a diverse range of genres, with a focus on individual and small group performance and ensemble rehearsals. Prerequisite: Ability to play an instrument and sight read music at a 12th grade level or higher.

**MUSC 147 (5) C**  
**Jazz Ensemble II**  
Continues the study of jazz performance repertoire, musicianship and technical skills from MUSC 146. Prerequisite: Permission. This course requires private lessons, small group and large ensemble rehearsal techniques, practice routines and improvisation. Prerequisite: Ability to sight read music at a 12th grade level or higher.

**MUSC 148 (5) C**  
**Jazz Ensemble III**  
Provides opportunity to perform in a small-combo and big band jazz ensemble. Explores the literature associated with modern jazz composers such as Dizzy Gillespie, Herbie Hancock, Thelonious Monk, Charles Mingus, Chick Corea and more. Examines and performs avant-garde and contemporary jazz styles in a small group setting. Prerequisite: Ability to read music at a 12th grade level or higher.

**MUSC 149 (2) C**  
**Jazz Combo**  
Performance class requiring reading and improvisational skills. Develops small ensemble skills in the jazz musician as a vocalist or instrumentalist.

**MUSC 150 (5) C**  
**Studio Jazz Orchestra**  
Emphasis on big band concept. Covers musical and performance techniques. Prerequisite: Performance ability.

**MUSC 151 (1-3) C,N**  
**Performance Experience**  
Instruction on presenting a public performance in a setting beyond the classroom. Work as soloists or in small combinations. All styles. Prerequisite: Performance ability.

**MUSC 153 (2) C**  
**Contemporary Jazz Ensemble**  
Membership by audition. Combines talents of professional and student musicians in the big band experience. Practice and perform in concert the newest big band arrangements which cover all styles of big band jazz. Evening rehearsals. Prerequisite: Ability to perform at group level and permission.

**MUSC 154 (1-2) C,N**  
**Symphonic Band**  
Features the finest in Wind band literature, both contemporary and traditional. Membership by audition.

**MUSC 156 (5) C**  
**Jazz Improvisation I**  
Develops skills in improvisation and confidence in playing or singing in solo and combo settings, representing standard compositions from the art of jazz. Prerequisite: Ability to sight read music at a 12th grade level or higher.

**MUSC 157 (5) C**  
**Jazz Improvisation II**  
Continues study of jazz improvisation with theoretical and technical concepts relating to the art of spontaneous improvisation. Work closely within a professional performance setting and learn the skills necessary for individual and group interaction in the traditional jazz combo and large ensemble presentations. Prerequisite: Knowledge of major/minor scales and basic keyboard skills.

**MUSC 158 (5) C**  
**Jazz Improvisation III**  
Augments repertoire by studying compositions of modern jazz improvisers such as Chick Corea, Herbie Hancock and Wayne Shorter. Learn techniques associated within the style and receive instruction on the fundamentals, repertoire and technical studies introduced in MUSC 156 and 157. Recommended: MUSC 157. Prerequisite: Knowledge of major/minor scales, modes and basic keyboard skills and permission.

**MUSC 161 (5) C**  
**History/American Pop Music**  
History of American popular music from colonial times to contemporary styles. Analysis of musical characteristics, as well as social/cultural contexts of development.

**MUSC 163 (5) C**  
**Musical Theater/Stage**  
Covers principles of voice production, resonance and projection. Learn effective presentation of varied materials. Fills the gap between the teacher’s studio and professional performance.

**MUSC 164 (2) C**  
**College Chorus**  
Vocal ensemble. May be repeated for additional credit.

**MUSC 165 (1-2) C**  
**Community Chorale**  
Performs literature for the large choral ensemble. Meets one evening weekly.

**MUSC 166 (2) C,N**  
**Vocal Ensemble**  
Small vocal ensemble performs music from several different periods, including contemporary.

**MUSC 171 (1-2) C,N**  
**Individual Instruction: Piano**  
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prerequisite: Permission.

**MUSC 172 (1-2) C,N**  
**Individual Instruction: Strings**  
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prerequisite: Permission.

**MUSC 173 (1-2) C,N**  
**Individual Instruction: Brass**  
Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prerequisite: Permission.

**MUSC 182 (4) C**  
**Intro to Musical Theatre**  
Basic instruction in dramatic and vocal discipline of musical theatre. Learn basic techniques of analysis, rehearsal and performance of musical theatre through the study of scenes and in-class performance. Recommended: MUSC 119, 130 and/or DRMA & 101.
**FINDING COURSES**
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

**PREFIX TO NAME**
HIN ............ Watch Technology

**NAME TO PREFIX**
Watch Technology ............ HIN

Common Course Numbering explanation is on page 224.

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**MUSC 185** (5) C
**Computer Music Recording**
Intro to the technical skills of electronic music production and recording. Covers the basic elements of music including listening, improvising, recording, arranging, mixing and digital editing. Create original music using stimuli. Learn mixing and audio production, including sound shaping, effects use and midi sequencing. Open to all students.

**MUSC 186** (5) C
**DMPS**
Sequel to Music 185. Expands knowledge of digital music production through learning intermediate level techniques for composing, producing, and performing songs. Covers computer-based recording, synthesis, and notation for the composer/arranger. Focuses on fundamentals of MIDI, sequencing, sampling, basic signal processing, and practical production skills using current digital technology. Includes writing of original material during lab sessions. Prereq: MUSC 185 minimum passing grade 2.0.

**MUSC 204** (5) C,N
**History of Jazz**
Traces the roots of jazz in America, through films, lectures, recordings and live performances. Includes Rag, New Orleans, New York, Chicago, Kansas City, the Big Band era, Blues, Be-bop, Hard Bop, the New Thing, Free Form, Electric and Fusion Styles.

**MUSC 205** (5) C
**Jazz Masters 20th Century**
A music literature course for the general student who wishes to study jazz music in more depth. Lectures, selected readings and major recordings by each artist.

**MUSC 213** (3) C
**Post-1830 Romantic**
Chronological survey of Romantic Period. Emphasis on stylistic and historical trends through extensive listening, class discussion, and illustrated lectures.

**MUSC 221** (2) C,S
**Group Piano 4th Quarter**
Continuation of MUSC 128. Technique, repertoire and theory, with emphasis on classical compositions. Prereq: MUSC 128 or permission.

**MUSC 222** (2) C,S
**Group Piano 5th Quarter**
Continuation of MUSC 221. Prereq: MUSC 221 or permission.

**MUSC 223** (2) C,S
**Group Piano 6th Quarter**

**MUSC& 231** (3) C
**Music Theory IV**
Continuation of MUSC& 143, completing the periods up to Impressionism. Chromatic harmony, modulations and related modern concepts. Prereq: MUSC& 143.

**MUSC& 232** (3) C
**Music Theory V**
Continuation of MUSC& 231. Advanced 4-part harmony, especially relating to form and development. Prereq: MUSC 231.

**MUSC& 233** (3) C
**Music Theory VI**

**MUSC 298** (5) C,N
**Practicum in Music**
Practicum in various skills in music, such as tutor assistant in piano theory, coaching vocal students or apprenticeship in use of electronic equipment (Broadway Performance Hall).

**MUSC 299** (1-5) C,N,S
**Practicum in Music**
Research musical performance in an area of interest determined by student and instructor. Prereq: Permission.

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**Nanotechnology**

**NANO 101** (5) N
**Intro to Nanotechnology**
Introduction to nanotechnology principles, applications and industry. Topics include: basic concepts of nano/microelectronics-mechanical materials and why they lead to different materials properties; applications of nano/microelectronics-mechanical materials to electronics, magnets, mechanics, fluidics, optics, photonics and smart, biological materials: micro and nano sensors and actuators; introduction to processing, fabrication, modeling and testing; overview of industry, ethics and careers as they relate to the fast evolving field of nanotechnology. Prereq: MATH 098.

**NANO 220** (5) N
**Micro/Nanofabrication**
Covers the fabrication technologies used in the nano/micro fabrication laboratory and production environments. Includes cleanroom basics and proper technique: lithography: methods of physical and chemical materials deposition and etching. Prereq: NANO 101 (with a 2.0 or higher), MATH& 098, CHEM& 121, and MSC 101; or instructor permission.

**NANO 230** (5) N
**Nano/Micro Characterization, Packaging and Testing**
Intro to nano/micro device and material characterization testing and packaging. Covers surface and bulk material characterization methods, including composition and property analysis of nano/micro devices materials, and structures. Prereq: NANO 220, CHEM& 131 with a 2.0 or higher and MATH 098 with 2.0 or higher or permission. Recommend PHYS& 121. Recommend PHYS& 114.

**NANO 250** (5) N
**Capstone/Practicum II**
Provides direct experience in a nano/micro fabrication facility. Complete a design and fabrication project related to a nano/microdevice, document and report on the project. Prereq: Permission. Prereq: NANO 220 with 2.0 or higher, AND Instructor permission.

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**Network Technology**

Also see Computer Support Technician at SVI.
North courses formerly listed as NET are now listed under Information Technology (IT). Courses are designed to prepare a student to meet IT industry benchmarks and vendor certification programs.
Network Essentials
Intro to networking technologies for local area networks (LANs), wide area networks (WANs), and the Internet. Prereq: MIC 101 or ability to use MS Office.

Network Operating Systems – Part 1
Learn to install and configure Microsoft Windows on stand-alone and client computers that are part of a workgroup or domain and those required for implementing a Microsoft Windows Network Infrastructure. Prereq NET 120 with 2.0 or higher or permission.

Network Operating Systems – Part 2
Learn to install Windows Server and various file systems and to administer and manage Active Directory services and objects. Use Microsoft Management Console to monitor system performance and to administer Internet Information Services and user accounts, group accounts and group policies. Study print services, network protocols, virtual private networking, Routing and Remote Access Service, DHCP, WINS and DNS. Learn to back up data, implement disaster protection and recover from a disaster. Prereq: NET 122 with 2.0 or higher or concurrent enrollment in NET 122.

Network Operating Systems – Part 3
Continuation of NET 124. Covers capacity planning, directory services, group policies, multiple domain management, trust relationships, implementing RAS, IPsec, interoperating with various network operating systems. Prereq: NET 124.

Network Communication – TCP/IP
Learn to set up, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on major operating systems in a networked environment. Emphasis on DNS for directory systems and ports for service availability, troubleshooting network connectivity, bandwidth management and optimization. Prereq: NET 124 (may be taken concurrently) or permission. Eligible for MATH 098.

UNIX for Network Administrator
Covers the organization of UNIX-based hardware components and software tools used by the host administrator to control access, tune the system, and account for system resources used. Covers advanced concepts with multi-user, multi-tasking, time-sharing networked communications. UNIX tools, network schedulers, security, remote access, performance monitoring and networking aspects of UNIX. Examines operational considerations including host initialization, suspension and termination and the system's physical environment. Prereq: ITC 136.

Network Management – Cisco I
Continuation of NET 122. Covers safety, networking, network protocols, LANs, WANs, Ethernet, LAN switching, router IOS, TCP/IP addressing, router configuration, dynamic routing, static routing and the network administrator's role and function. Emphasis on techniques to solve networking problems. Prereq: NET 122 (may be taken concurrently) or permission.

Network Management – Cisco II
Continuation of NET 142. Covers safety, networking, network protocols, LANs, WANs, Ethernet, LAN switching, router IOS, TCP/IP addressing, router configuration, dynamic routing, static routing and the network administrator's role and function. Emphasis on techniques to solve networking problems. Prereq: NET 142.

Network Management – Cisco III
Continuation of NET 144. Extends knowledge and practical experience with configuring LANs, hubs, switches, Internet-work Packet Exchange (IPX) routing, Interior Gateway Routing Protocol (IGRP), Wide Area Networks (WANs) and network troubleshooting. Covers Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and frame relay design, configuration and maintenance. Prereq: NET 142, 144 or permission.

Enterprise Applications
Capstone course for network infrastructure students. Simulate a small business environment in hardware and software from a case study and apply the skills from the foundation networking courses. Further explore enterprise applications and server needs of businesses as directed by industry standards and trends. Prereq: NET 126 with 2.0 or better or permission.

Special Projects for LAN
Study of selected topics considered appropriate by the instructor and/or faculty. Content and format vary. Could include Microsoft Back Office IIS, Proxy Server, Site Server, Transaction Server, SNA server and SQL server Prereq: NET 126 (C) and permission.

New Media

New Media I
Use authentic tasks and projects to prepare for real-world work demands encountered in respective fields. Work collaboratively in projects, exploring the role of communications in the context of New Media and society.

New Media II
Use authentic tasks and projects to prepare for real-world work demands encountered in respective fields. Work collaboratively in projects, exploring the role of communications in the context of New Media and society.

New Media III
Use authentic tasks and projects to prepare for real-world work demands encountered in respective fields. Work collaboratively in projects, exploring the role of communications in the context of New Media and society.

Nursing

Modern Fundamentals of Care
For nursing assistants who have a current, unencumbered WA state NAT license. To be taken as follow-up or concurrently with NUR 104.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Type</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 101</td>
<td>5</td>
<td>C</td>
<td>Nursing I: Fundamentals of Nursing</td>
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<td>Intro to core nursing concepts, organized around the individual as a biopsychosocial being, constantly interacting with and adapting to a changing environment. Covers principles of critical thinking, the nursing process, the role of the nurse, cultural views of health and principles of growth and development with emphasis on the aging process. Addresses images and impressions of nursing, current trends in health care delivery and legal and ethical issues in nursing. Coreq: NUR 111, 122 and MATH&amp; 107.</td>
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<tr>
<td>NUR 102</td>
<td>3</td>
<td>C</td>
<td>Nursing II: Medical-Surgical Nursing</td>
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<td>First of 4 medical-surgical theory courses. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasis on alterations in fluid and electrolyte balance, acid-base balance, endocrine functions, compromise in wound healing and peripheral vascular circulation. Prereq: Completion of 1st quarter with 2.5 or higher. Coreq: NUR 112, 123 &amp; NTR 150.</td>
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<td>NUR 103</td>
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<td>C</td>
<td>Nursing III: Medical-Surgical Nursing</td>
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<td>Second of 4 medical-surgical theory courses. Develop a comprehensive understanding of homeostasis and adaptation with emphasis on alterations in neurologic, musculoskeletal, chronic respiratory and chronic cardiovascular systems. Covers key concepts of adaptation to the complex processes of movement and cognition, oxygenation and circulation. Prereq: Completion of 2nd quarter with 2.5 or higher. Coreq: NUR 113, 185 and PSYC&amp; 200 or PSY 206.</td>
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<tr>
<td>NUR 104</td>
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<td>Nursing Delegation for NAC – Diabetes</td>
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<td>For current WA licensed NA-Cs or NA-Rs. Understand and perform RN-delegated tasks, focusing on diabetes and its management. Includes theory; insulin injections as a delegated task; recognizing low/high blood sugars and adverse effects of treatment; taking correct actions when low/high blood sugars occur. Prereq: Permission.</td>
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<td>NUR 105</td>
<td>2</td>
<td>N</td>
<td>CPR First Aid Healthcare Provider</td>
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<td>Provides support for ESL and Adult Basic Education students. Covers American Red Cross (ARC) or equivalent CPR/AED for the Professional Rescuer and Healthcare Provider, with 2-year valid certification; and First Aid Certificates required to work in skilled nursing facilities, adult family homes and hospitals. Coreq: NUR 107.</td>
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<td>NUR 106</td>
<td>8</td>
<td>C</td>
<td>LPN/RN Transition</td>
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<td>Designed for the LPN to make a successful transition to RN student at the 4th quarter level. Emphasis on applying critical thinking and nursing process to selected physiological and psycho-social alterations. Individualized instruction based on initial diagnostic assessment. Coreq: NUR 120.</td>
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<tr>
<td>NUR 107</td>
<td>8</td>
<td>N</td>
<td>Nursing Assistant – Theory</td>
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<td>Introduction to basic nursing care theory and concepts including HIV/AIDS education. Coreq: NUR 109. Students without CPR and first aid certification may also need to enroll in NUR 105.</td>
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<tr>
<td>NUR 108</td>
<td>3</td>
<td>N</td>
<td>Clinical Hospital Experience for NAC</td>
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<td>For nursing assistants who have a current, unencumbered WA state NA-C license who wish to increase hospital-based skills in an effort to obtain employment in an acute care facility. Requires mastery of a list of skills developed by acute care facilities.</td>
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<td>NUR 110</td>
<td>1</td>
<td>N</td>
<td>Body Mechanics Healthcare</td>
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<td>Covers the anatomy involved in back injuries, all aspects of proper techniques for lifting, transferring, and positioning of patients, with a goal of prevention of injuries to the healthcare provider. Certificate issued upon successful completion.</td>
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<tr>
<td>NUR 111</td>
<td>3</td>
<td>C</td>
<td>Nursing Practice I</td>
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<tr>
<td>NUR 112</td>
<td>3</td>
<td>C</td>
<td>Nursing Practice II</td>
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<td>Builds on NUR 111. Apply concepts relevant to adaptation in the basic physiological and psychosocial modes, client response and administration of medications. Assess the four adaptive modes. Gain experience in complete assessment, care planning and principled application of nursing skills in practice lab and clinical setting. Prereq: Completion of 1st quarter with 2.5 or higher. Coreq: NUR 102, 123 and NTR 150.</td>
</tr>
<tr>
<td>NUR 113</td>
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<td>Nursing Practice III</td>
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<td>Builds on NUR 112. Emphasizes integrating nursing theory, clinical data, skills in providing nursing care and developing priorities. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in practice lab and clinical setting. Prereq: Successful completion of 2nd quarter. Coreq: NUR 103, 185 &amp; PSYC&amp; 200.</td>
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<tr>
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<td>C</td>
<td>Nursing Practice</td>
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<td></td>
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<td></td>
<td>Builds on the foundation established in NUR 111, 112 and 113.</td>
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<tr>
<td>NUR 115</td>
<td>2</td>
<td>N</td>
<td>Intro to Patient Care</td>
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<td></td>
<td>Intro to supervised clinical experience in a long-term care environment. Includes communication and documentation skills. Coreqs: NUR 116, 117 &amp; 130.</td>
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<td>NUR 116</td>
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<td>Nursing Fundamentals</td>
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<td>Provides the theoretical background for basic nursing skills, including intro to nursing process, microbiology, nutrition, medical terminology and math equivalents. Coreqs: NUR 115, 117, &amp; 130.</td>
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<td>NUR 117</td>
<td>2</td>
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<td>Nursing Fundamentals Lab</td>
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<td>This is an introductory course in nursing skills and procedures. The course includes demonstration of basic skills and laboratory practice. Beginning communication skills are also included. Coreqs: NUR 115, 116, &amp; 130.</td>
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<td>NUR 118</td>
<td>2</td>
<td>N</td>
<td>Clinical Nursing Skills I</td>
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<tr>
<td>NUR 119</td>
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<td>Clinical Nursing Skills II</td>
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<td></td>
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<td></td>
<td>Continuation of NUR 118; theory and labs linked with NUR 128 and 141. Prereq: First two quarters NUR courses. Coreq: NUR 128 &amp; NUR 141.</td>
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<td>NUR 120</td>
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<td>LPN/RN: Assessment &amp; Intervention</td>
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<td>Integrates critical thinking in practical caregiving situations. Emphasis on principles used in performing selected nursing skills in various contexts. Coreq: NUR 106.</td>
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<td>Course Code</td>
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<td>Psychosocial Nursing I</td>
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<td>First of 2 psychosocial nursing courses. Focuses on communication pertinent to the care of clients in various health care settings throughout the lifespan. Practice therapeutic and professional communication techniques. Assess adaptation in self-concept, role function and independence of clients who are coping with acute and chronic illness. Learn group process. Coreqs: NUR 101, 111 and MATH&amp; 107.</td>
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<td>NUR 123</td>
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<td>Pharmacology for Nursing</td>
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<td>Intro to basic concepts of drug therapy, roles and responsibilities of nurses, and applying critical thinking and the nursing process for safe medication administration. Includes terminology, resources and regulations related to drug therapy and principles of pharmacokinetics, pharmacodynamics and pharmacotherapeutics. Major classifications of drugs include autonomic nervous system agents; parenteral fluids; electrolytes; vitamins and minerals; endocrine, neurologic, respiratory and selected cardiovascular agents; anesthetic, immune system and gastrointestinal agents. Coreqs: NUR 102, 112 &amp; NTR 150.</td>
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<tr>
<td>NUR 126</td>
<td>3</td>
<td>N</td>
<td>Role of the LPN</td>
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<td>Assist the student to further understand the role of the LPN and legal issues related to practical nursing. Prereq: First three quarters NUR courses. Coreq: NUR 139 &amp; 154.</td>
</tr>
<tr>
<td>NUR 127</td>
<td>6.5</td>
<td>N</td>
<td>Medical/Surgical Nursing</td>
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<td>Covers common conditions of illness throughout the life span. Prereq: All first-quarter NUR courses. Coreq: NUR 118 &amp; 131.</td>
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<tr>
<td>NUR 128</td>
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<td>N</td>
<td>Medical-Surgical: Child/Adult II</td>
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<td>Continuation of NUR 127. Prereq: First two quarters NUR courses. Coreq: NUR 119 &amp; 141 and permission.</td>
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<td>NUR 129</td>
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<td>N</td>
<td>End of Life Care for NA</td>
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<td>Offers the nursing assistant an understanding of the hospice and palliative care concepts of end of life care and provides the tools for nursing assistants to assist persons who are experiencing profound loss and grief that accompany the dying process.</td>
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<tr>
<td>NUR 130</td>
<td>2</td>
<td>N</td>
<td>Critical Thinking in Nursing</td>
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<td>Intro to critical thinking skills in nursing and the nursing process with practice applying theory and skills. Coreqs: NUR 115, 116, &amp; 117.</td>
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<tr>
<td>NUR 131</td>
<td>3.5</td>
<td>N</td>
<td>Clinical Nursing Practice I</td>
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<td>Supervised hospital and nursing home practice in medical/surgical care of the child/adult and chronic and convalescent patients. Includes communication and documentation skills. Prereq: All first-quarter NUR courses. Coreq: NUR 118 &amp; NUR 127</td>
</tr>
<tr>
<td>NUR 133</td>
<td>1.5</td>
<td>N</td>
<td>Family Nursing Theory</td>
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<td>Study of the care of families, perinatal clients and their partners, infants and children. Nursing care for children will center on health promotion and wellness maintenance as well as parenting. Coreq: NUR 134.</td>
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<tr>
<td>NUR 134</td>
<td>1.5</td>
<td>N</td>
<td>Family Nursing Clinical</td>
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<td>Application of practical nursing care of families, including perinatal clients and their partners, infants and children in a childbirth center and pediatric setting. Nursing care for children will center on health promotion and wellness as well as parenting. Coreq: NUR 133.</td>
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<td>NUR 139</td>
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<td>Transition to LPN Practice</td>
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<td>NUR 140</td>
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<td>N</td>
<td>Clinical Nursing Practice II</td>
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<td>Supervised hospital and nursing home practice with related ward conferences, to expand basic nursing care skills for the convalescent and chronically ill patient, medical/surgical patient, child or adult. Includes communication and documentation skills. Prereq: First two quarters NUR classes. Coreq: NUR 119 &amp; 128.</td>
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<tr>
<td>NUR 145</td>
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<td>N</td>
<td>Mental Health Training</td>
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<td>For nursing assistants and other healthcare providers who care for patients with mental illness. Covers the major mental disorders and dementia, culturally competent caregiving, respectful communication, and strategies for caregiving.</td>
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<td>NUR 154</td>
<td>1</td>
<td>N</td>
<td>IV Therapy Skills</td>
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<td>Intermediate course in intravenous therapy which provides theoretical background for intravenous infusion and clinical application skills using the nursing process. Prereq: First three quarters NUR courses. Coreq: NUR 126 &amp; 139.</td>
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<tr>
<td>NUR 155</td>
<td>1-6</td>
<td>N</td>
<td>Special Topics – Practical Nursing</td>
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<td>Assists foreign students, pre-nursing and advanced placement students to meet special needs for licensure or other student interests. Tailored to meet State Board (LPN) or faculty recommendations to accomplish student/program objectives. Prereq: Permission.</td>
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<tr>
<td>NUR 185</td>
<td>2</td>
<td>C</td>
<td>Gerontology for Nurses</td>
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<td>Study adaptations of normal aging, differentiating these adaptations from disease and learn the implications for nursing care. Covers psychosocial, legal and ethical issues common in gerontological nursing practice. Prereq: Completion of 2nd quarter with a 2.5 or higher. Coreq: NUR 103, 113 and PSYC&amp; 200.</td>
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<tr>
<td>NUR 190</td>
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<td>C</td>
<td>ADN Prog Study Group I</td>
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<td>Enhances the lecture material presented in required core nursing courses each quarter. Focuses on understanding concepts relevant to adaptation in the basic physiological and psychosocial modes. Emphasizes the nursing process as the scientific basis for practice. Coreqs: Enrollment in all concurrent Nursing courses for the quarter specified.</td>
</tr>
<tr>
<td>NUR 191</td>
<td>2</td>
<td>C</td>
<td>ADN Prog Study Group II</td>
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<td>Enhances the lecture material presented in required core nursing courses each quarter. Focuses on understanding concepts relevant to adaptation in the basic physiological and psychosocial modes. Emphasizes the nursing process as the scientific basis for practice. Coreqs: Enrollment in all concurrent Nursing courses for the quarter specified.</td>
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<td>NUR 192</td>
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<td>C</td>
<td>ADN Prog Study Group III</td>
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<td>Enhances the lecture material presented in required core nursing courses each quarter. Focuses on understanding concepts relevant to adaptation in the basic physiological and psychosocial modes. Emphasizes the nursing process as the scientific basis for practice. Coreqs: Enrollment in all concurrent Nursing courses for the quarter specified.</td>
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</tbody>
</table>
FINDING COURSES
Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

PREFIX TO NAME
HIN ..............Watch Technology

NAME TO PREFIX
Watch Technology ............ HIN

Common Course Numbering explanation is on page 224.

NUR 199 (1-12) C
LPN Practice
Independent clinical practicum for LPN graduates to practice in a clinical setting with a preceptor, gaining in-depth experience in a chosen specialty area. Carry out full-shift nursing care and hone nursing skills in real-life situations in preparation for jobs or further LPN-RN studies. Prereq: NUR 170, 171, 172, 173, 174, NCLEX & LPI/J WA State certification.

NUR 201 (2) C
Nursing IV A: Psychosocial Nursing II
Second of 2 psychosocial nursing courses. Builds on NUR 122 (or NUR 106). Focuses on caring for clients with mental illness using a system with cognator and regulator subsystems to maintain adaptation in the four adaptive modes. Covers psychosocial assessment and therapeutic interventions in psychiatric disorders at three levels: integrated, compensatory and compromised. Prereq: Completion of 3rd quarter or LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 201, 206, 216.

NUR 206 (3) C
Nursing IV B: Medical/Surgical
Third of 4 medical-surgical courses. Builds on NUR 101, 102 & 103. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasizes alterations in select integumentary and immune or protective responses and surgical therapies. Prereq: Completion of 3rd quarter or LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 201, 211, 216.

NUR 207 (4) C
Nursing V: Medical/Surgical Nursing
Fourth of 4 medical surgical courses. Builds on NUR 101, 102, 103 & 206. Develop a comprehensive understanding of homeostasis and the adaptation of clients to the complex processes of the physiologic mode. Emphasizes acute respiratory, acute cardiovascular, gastrointestinal and renal alterations. Prereq: Completion of 4th quarter with 2.5 or higher. Coreq: NUR 217, 220.

NUR 208 (6) C
Nursing VI – Family Nursing
Develop a comprehensive understanding of homeostasis and the adaptation of maternal, newborn and pediatric clients to the complex processes of the physiologic mode. Emphasizes learning and promoting normal family development and understanding adaptive and maladaptive physiologic and psychosocial responses to childbearing, childrearing and illness in childhood. Prereq: Completion of 5th quarter with 2.5 or higher. Coreq: NUR 218, 230.

NUR 211 (3) C
Nursing Practice IV A
In a psychiatric setting focus on adaptation in the basic physiological and psychosocial modes and client response. Integrates nursing theory, clinical data and skills in nursing care and developing priorities. Assess the four adaptive modes in clinical setting, gain experience in individualized assessment and care planning and apply therapeutic skills in practice lab and clinical setting. Prereq: Completion of 3rd quarter LPN/RN Transition courses with 2.5 or higher. Coreq: NUR 201, 206, 216.

NUR 216 (3) C
Nursing Practice IV B
Focuses on concepts relevant to adaptation in the basic physiological and psychosocial modes and client response. Emphasizes comprehensive care and the relationships of the various components of client data and health care interventions. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in practice lab and clinical setting. Prereq: Completion of 3rd quarter Nursing or LPN/RN Transition with 2.5 or higher. Coreq: NUR 201, 206, 211.

NUR 217 (5) C
Nursing Practice V
Study adaptation in the basic physiological and psychosocial modes and client response. Emphasizes analysis of client data and health care interventions, initiating nursing assessments and interventions, health promotions and education and developing leadership skills. Assess the four adaptive modes, gain experience in individualized assessment and care planning and apply nursing skills in a variety of clinical settings. Prereq: Completion of all 4th quarter with 2.5 or higher. Coreq: NUR 207 & 220.

NUR 218 (3) C
Nursing Practice VI
Emphasis on adaptation in the developing family. Apply concepts from NUR 208 relevant to adaptation in the basic physiological and psychosocial modes and client response. Assess the four adaptive modes in the clinical setting. Obtain experience in individualized assessment, care planning, and principled application of nursing skills in a variety of clinical settings. Coreqs: NUR 207, 220.

NUR 220 (2) C
Health Promotion/Managing Care
Intro to theoretical foundations of health promotion, education and wellness maintenance across the lifespan and to the leadership role in Nursing. Emphasizes planning health promotions and managing care in a variety of settings. Addresses leadership in nursing: traits, styles, problem-solving, change, team communication, conflict management, delegation, time management and the implications of health care trends. Linked to final medical-surgical rotation. Prereq: Completion of 4th quarter with a 2.5 or higher. Coreq: NUR 207 & 217.

NUR 223 (2) N
Advanced Nursing Skills
This is the third on four courses designed to introduce basic concepts of drug therapy. The focus is on developing a knowledge base essential for safe medication administration. The major categories of drugs studied are those that effect neurologic, cardiovascular, endocrine and respiratory function. The role and responsibilities of the nurse in drug therapy are emphasized throughout the course. Prereq: Successful completion of NUR 100 and NUR 123.
<table>
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<td>Complex Medical/Surgical Psych Nursing</td>
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**Nursing Educational Outreach**

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<td>Complex Medical/Surgical Psych Nursing</td>
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<td>N</td>
<td>Transition to RN Practice</td>
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<td>Basic Nursing Theory I</td>
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**Oceanography**

**OCEA 100**  (5)  C,N  
**Intro to Oceanography**
Survey of the ocean in terms of physical, chemical, geological and biological processes and the human influence upon the ocean’s natural equilibrium processes. Prereq: Eligibility for MATH 084, 087, or 091 (C).

**OCEA 101**  (5)  C,N  
**Intro Oceanography with Lab**
Explore the basic fields of ocean science: marine geology, biological, chemical and physical oceanography. Investigate natural disasters in the Pacific Northwest, the effects of climate change on the ocean, tribal whaling and fisheries decline. Lab. Prereqs: Eligibility for ENGL& 101 and MATH 084. Prereq: Eligibility for MATH 084, 087, or 091 (C).

**OCEA 298**  (5)  C  
**Special Topics: Oceanography**
Selected topics or activities in oceanography. Prereq: Permission.

**OCEA 299**  (5)  C,N  
**Independent Study – Oceanography**
Study of selected topics in oceanography. Prereq: OCE 100 and permission.

**Opticianry**

**OPH 100**  (2)  C  
**Orientation to Ophthalmic Optics**
Intro to optical mechanics, ophthalmic dispensing and optics and products. Overview of the optical business and the job of the ophthalmic dispenser. Prereq: Permission.

**OPH 101**  (5)  C  
**Optical Theory I**
Focuses on ophthalmic lens optics and eyeglass fabrication process and introduces practical application of ophthalmic lens equations. Includes study of powers of spectacle lenses including ophthalmic prisms and aberrations. Prereq: Successful completion of first quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 102**  (4)  C  
**Optical Theory II**
Continuation of OPH 101. Introduces refraction and refraction principles. Emphasis on light theories, propagation, ray tracing, plane surfaces and prisms. Prereq: Successful completion of second quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 103**  (3)  C  
**Optical Theory III**
Covers multi-focal lenses: origin, development, types and applications. Includes study of presbyopia and other conditions requiring correction and introduces presbyopic prescription analysis. This course specifically includes the study of prescriptions for eyeglasses/contacts, how they are obtained and the associated customer service. Prereq: Successful completion of third quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 105**  (3)  C  
**Ocular Anatomy & Physiology**
Covers anatomy and physiology of the human eye, including relation of ocular anatomical structures to the visual process. Emphasis on ocular terminology. Prereq: Successful completion of second quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 106**  (3)  C  
**Contact Lenses Tech I**
Covers basic principles of contact lenses: history, manufacturing methods, terminology, optics, equipment for fitting and evaluation of contact lens candidates. Lab demonstration on use of radius gauge, ophthalmometer, thickness and diameter gauges, shadow graph and biomicroscope. Prereq: Successful completion of third quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 107**  (3)  C  
**Ophthalmonic Dispensing I**
Intro to responsibilities of the ophthalmonic dispenser, including facial measurements, cosmetic considerations, frame fitting and selection based on prescription. Includes practical projects, role-playing and demonstrations. Prereq: Successful completion of first quarter courses with a minimum GPA of 2.0.

**OPH 108**  (3)  C  
**Ophthalmonic Dispensing II**
Covers ophthalmonic dispensing procedures relating to complex prescriptions: fitting, adjusting and ordering procedures with emphasis on multi-focal and absorptive lenses. Includes low-vision aids. Refines communication skills. Prereq: Successful completion of second quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 110**  (2)  C  
**Optical Lab Tech I**
Covers lens surfacing, instrumentation, ophthalmonic laboratory procedures, laboratory safety procedures, and lens design as related to eyeglass fabrication and basic optical terminology. Prereq: Permission.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
</table>
| OPH 111     | 2       | Optical Lab Tech II  
Continuation of OPH 110. Introduction to laboratory equipment, including applications and lens surfacing. Multifocal lens designs are introduced. Basic ophthalmic prism concepts are introduced. Prereq: Successful completion of first quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 112     | 2       | Optical Lab Tech III  
Continuation of OPH 111. Introduction to the history and optics of progressive lenses. Lens standards will be discussed as well as yoked prism and prism thinning. Prereq: Successful completion of second quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 113     | 2       | Finishing I  
Covers finishing work with emphasis on procedures and machinery for automatic edging. Studies American National Standards Institute guidelines. Intro to lens toughening procedures and stress testing. |
| OPH 120     | 1       | Optical Laboratory Technology Equipment & Techniques I  
An introduction to the equipment and procedures used in the ophthalmic laboratory. This course covers the use of the facemeter, lens clock, and thickness gauges. Prescription and lens analysis is also introduced. Prereq: Permission. |
| OPH 121     | 1       | Optical Laboratory Technology Equipment & Techniques II  
Continuation of OPH 120. This course is designed to build upon the ophthalmic laboratory techniques learned in OPH 120 as well as to orient the student to laboratory equipment. Prereq: Successful completion of first quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 122     | 1       | Optical Laboratory Technology Equipment & Techniques III  
OPH 122, Optical Laboratory Equipment and Techniques III, is a continuation of OPH 121. This course is designed to build upon the ophthalmic laboratory techniques learned in OPH 121 as well as to analyze ophthalmic lenses with greater speed and accuracy. Prereq: Successful completion of second quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 123     | 3       | Finishing I  
Ophthalmic laboratory finishing equipment and techniques will be studied. Laboratory flow and methods of lens production will be taught. Prereq: Successful completion of third quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 126     | 2       | Contact Lens & Equipment I  
This beginning lab class introduces the use of the equipment needed to fit and evaluate contact lenses. You will learn how to operate the keratometer, biomicroscope, radiuscope, and continue to use your lensometer skills to evaluate contact lenses. Prereq: Successful completion of third quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 127     | 2       | Ophthalmic Dispensing I & T  
This course is the first of two dispensing classes. It is designed to teach the basics in frame and lens selection as well as patient measurements and frame adjustments to find that first job and complete co-operative education. This class is hands on and you will be practicing each of the assignments with students in class. Prereq: Successful completion of first quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 128     | 2       | Ophthalmic Dispensing II & T  
This course helps fine tune skills as a dispenser and includes more detailed information on adjustments and lenses. Prereq: Successful completion of second quarter opticianry courses with a minimum GPA of 2.0. |
| OPH 129     | 3       | Contact Lenses Tech III  
Continuation of OPH 203. Emphasis on available lenses, solutions and accessories; diagnostic and fitting skills; development of biomicroscopy and keratometry skills. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0. |
| OPH 130     | 3       | Work Experience  
Cooperative Education is an academic program that integrates the student’s educational experience with supervised work, intern, or volunteer experience. OPH 130 is the second course in which students apply knowledge and further develop skills in the workplace. Students earn academic credit towards their degree in opticianry. Prereq: Successful completion of all opticianry program courses with a minimum GPA of 2.0. |
| OPH 131     | 3       | Work Experience  
Cooperative Education is an academic program that integrates the student’s educational experience with supervised work, intern, or volunteer experience. OPH 131 is the third course in which students apply knowledge and further develop skills in the workplace. Students earn academic credit towards their degree in opticianry. Prereq: Successful completion of all opticianry program courses with a minimum GPA of 2.0. |
| OPH 132     | 3       | Work Experience  
Cooperative Education is an academic program that integrates the student’s educational experience with supervised work, intern, or volunteer experience. OPH 132 is the fourth course in which students apply knowledge and further develop skills in the workplace. Students earn academic credit towards their degree in opticianry. Prereq: Successful completion of all opticianry program courses with a minimum GPA of 2.0. |
**FINDING COURSES**

Course names and course prefixes are cross-referenced in an index beginning on page 225. For example:

**PREFIX TO NAME**

HIN  Watch Technology

**NAME TO PREFIX**

Watch Technology HIN

Common Course Numbering explanation is on page 224.

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**OPH 205 (2) C**

**Contact Lens Tech IV**

Continuation of OPH 204. Emphasis on ocular surfaces in interaction with foreign objects, ocular pharmacology and the refraction examination. Prereq: Successful completion of sixth quarter opticianry courses with a minimum GPA of 2.0.

**OPH 211 (2) C**

**Finishing II**

Continuation of finishing laboratory skills, with emphasis on multifocal lenses. Includes layout of multi-focal lenses and study of plastic lenses and tinting. Specialty lenses will be discussed as well as atypical frame materials. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 212 (2) C**

**Finishing III**

OPH 212 is a continuation of OPH 211. New lens technology and materials will be discussed. This course also includes a review for the American Board of Opticians certification exam. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 215 (3) C**

**Benchwork Procedures**

Independent work on projects to develop production skills and workmanship. Students will also enhance skills that are essential to passing the Washington State Boards in Opticianry. Prereq: Successful completion of sixth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 221 (3) C**

**Optical Lab Finishing E & Q I**

Optical Laboratory Finishing Equipment and Techniques I expands upon skills learned in OPH 113 and 123. Students will continue to develop optical laboratory finish work techniques with an emphasis on multifocal lens design. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 222 (3) C**

**Finishing & Q III**

Optical Laboratory Finishing Equipment and Techniques III expands upon skills learned in OPH 211 and 221. Students will continue to develop optical laboratory finish work techniques with greater speed and precision. Neutralization and verification of compound prism lenses will be introduced. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 223 (2) C**

**Contact Lens Technology II – Equipment & Techniques**

This fifth quarter beginning course builds a solid foundation of contact lenses fitting and evaluation. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 224 (3) C**

**Contact Lens Technology III – Equipment & Techniques**

In this sixth quarter class complications of contact lens wear will be discussed in detail. Laboratory exercises will offer the student an opportunity to improve accuracy and speed in contact lens verification and keratometry. Students will work to increase skill levels in inserting and removing contact lenses, fitting techniques and Slit-lamp use. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 225 (1) C**

**Contact Lens Technology IV – Equipment & Techniques**

Complications of contact lens wear will be discussed in detail. Laboratory exercises will offer the student an opportunity to improve accuracy and speed in contact lens verification and keratometry. Students will work to increase skill levels in inserting and removing contact lenses, fitting techniques and Slit-lamp use. Prereq: Successful completion of sixth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 226 (3) C**

**Optical Dispensing Business I**

Introduction to business functions, including sales and management. Fully develop salesmanship, business plans and implementation. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 227 (1) C**

**Optical Dispensing Business II**

Intermediate business functions, including sales and management. Continued development of salesmanship, business plans and implementation. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 228 (2) C**

**Optical Dispensing Business III**

Incorporates advanced ophthalmic skills with new technology, critical thinking and problem-solving. Provides the opportunity to pursue professional areas of interest. Prereq: Successful completion of sixth quarter opticianry courses with a minimum GPA of 2.0.

**OPH 229 (2) C**

**Optical Dispensing Business &T I**

Introduction to business functions, including sales and management. Fully develop salesmanship, business plans and implementation. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 230 (1) C**

**Optical Dispensing Business &T II**

This course represents the second year student’s second experience in the learning center known as Campus Optical. The students will staff Campus Optical through a rotation system defined by the instructor assigned to the area during the clinical experience. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

**OPH 231 (2) C**

**Optical Dispensing Business &T III**

The students will staff Campus Optical through a rotation system. Practicing and improving communication skills with clients and coworkers continues to be an important part of this course. Sales skills learned through experience and didactic sessions throughout 285 and 286 will be fine tuned during this quarter. Prereq: Successful completion of sixth quarter opticianry program courses with a minimum GPA of 2.0.
OPH 285 (2) C  
Ophthalmic Business I E&T  
The students will staff Campus Optical through a rotation system defined by the instructor assigned to the area during the clinical experience. Dispensing skills will be further developed in the retail optical learning center on campus. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

OPH 286 (2) C  
Ophthalmic Business II E&T  
This course represents the second year student's second experience in the learning center known as Campus Optical. The students will staff Campus Optical through a rotation system defined by the instructor assigned to the area during the clinical experience. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

OPH 287 (2) C  
Ophthalmic Business III E&T  
The students will staff Campus Optical through a rotation system. Practicing and improving communication skills with clients and coworkers continues to be an important part of this course. Sales skills learned through experience and didactic sessions throughout 285 and 286 should be fine tuned during this quarter. Prereq: Successful completion of sixth quarter opticianry program courses with a minimum GPA of 2.0.

OPH 295 (1) C  
Ophthalmic Dispensing Business  
Introduction to business functions, including sales and management. Fully develop salesmanship, business plans and implementation. Prereq: Successful completion of fourth quarter opticianry program courses with a minimum GPA of 2.0.

OPH 296 (1) C  
Ophthalmic Dispensing Business  
Intermediate business functions, including sales and management. Continued development of salesmanship, business plans and implementation. Prereq: Successful completion of fifth quarter opticianry program courses with a minimum GPA of 2.0.

OPH 297 (1) C  
Ophthalmic Dispensing Business  
Incorporates advanced ophthalmic skills with new technology, critical thinking and problem-solving. Provides the opportunity to pursue professional areas of interest. Prereq: Successful completion of sixth quarter opticianry courses with a minimum GPA of 2.0.

OPH 298 (1) C  
Opticianry Workshops  
Incorporate advanced ophthalmic skills with new technology, critical thinking and problem-solving. Provides the opportunity to pursue professional areas of interest.

OPH 299 (7) C  
Comprehensive  
As the last course in the program, students apply skills and knowledge acquired throughout the opticianry program. Students identify areas of weakness and work on methods of improvement required for successful completion of the state licensing test and entrance into the opticianry field as a licensed optician. Prereq: Successful completion of sixth quarter opticianry program courses with a minimum GPA of 2.0.

Parent Ed/Senior Ed  
Parent-Child Study Laboratory  
Students with children birth through 6 years of age enroll in classes according to the age of their child. The students attend the laboratory class one day a week and one evening class each month. Course content focuses on child development, positive guidance, health and safety, living in a diverse society, family issues and other parenting concerns depending on the age of the student's child.

FAM 012 (3) C,N  
Life Enrichment for Seniors  
Provides opportunities for seniors to stay informed on current social issues and meet the challenge of continual learning. Includes subjects in the fine arts, social sciences, humanities and sciences.

FAM 013 (3) C,N  
Living Skills for Seniors  
Covers information, resources and skills helping seniors to live healthy, independent lives. Includes topics in health, nutrition, consumer education, community resources, exercise, crime prevention, lip-reading and memory improvement.

FAM 014 (1-3) C,N  
Personal Growth/Seniors  
Includes classes in self-image, writing your life story, decision-making, widowhood, interpersonal communication and similar topics.

FAM 045 (3) C,N  
Parent Education Childstudy/Lab  
Parent/infant, parent/pre-three, father/infant, parent cooperative preschools. Parents participate in planning and leading learning activities for children and adults. Classes are located in campus Parent-Child Centers, and local neighborhood locations. Parents manage preschools, and instructors function as resource persons, facilitators, and early childhood educators.

FAM 046 (3) C,N  
2nd Parent Childstudy/Lab  
Parent/infant, parent/pre-three, father/infant, parent cooperative preschools. Parents participate in planning and leading learning activities for children and adults. Classes are located in campus Parent-Child Centers, and local neighborhood locations. Parents manage preschools, and instructors function as resource persons, facilitators, and early childhood educators.

FAM 047,048,049 (3) S  
Classes are for Parents of Infants  
Classes meet on campus for parents with their infant. In small and large group discussion, parenting education seminars, individual consultation, parents gain practical knowledge and skills they utilize at home as well as with the children in class while developing a network of support.

FAM 053,054,055 (3) S  
Classes are for Parents of One Year Olds  
Classes meet in a parent cooperative preschool for one year olds. In small and large group discussion, parenting education seminars, individual consultation, parents gain practical knowledge and skills they utilize at home as well as with the children in class while developing a network of support. Parents work in the classroom as assistant teachers under the guidance of the preschool teacher and parenting education instructor.

FAM 063,064,065 (3) S  
Classes are for Parents of Two Year Olds  
Classes meet in local neighborhood locations in a parent cooperative preschool for two year olds. In small and large group discussion, parenting education seminars, individual consultation, parents gain practical knowledge and skills they utilize at home as well as with the children in class. Parents work in the classroom one class session per week as an assistant teacher, manage preschool school, develop a network of support and parenting instructors function as resource persons, facilitators, and early childhood educators.
FAM 073,074,075 (3) S
Classes are for Parents of Three Year Olds
Classes meet in local neighborhood locations in a parent cooperative preschool for three year olds. In small and large group discussion, parenting education seminars, individual consultation, parents gain practical knowledge and skills they utilize at home as well as with the children in class. Parents work in the classroom one class session per week as an assistant teacher, manage preschool business, develop a network of support and parenting instructors function as resource persons, facilitators, and early childhood educators.

FAM 083,084,085 (3) S
Classes are for Parents of Four Year Olds
Classes meet in local neighborhood locations in a pre-K parent cooperative preschool for four year olds. In small and large group discussion, parenting education seminars, individual consultation, parents gain practical knowledge and skills they utilize at home as well as with the children in class. Parents work in the classroom one class session per week as an assistant teacher, manage preschool business, develop a network of support and parenting instructors function as resource persons, facilitators, and early childhood educators.

FAM 093,094,095 (3) S
Classes are for Parents with Multi-Age Children in One Class
FAM 145,146,147,148 (3) N
Parent Education 6-12 Months
Students with children, birth through 12 months of age, enroll in Parent Education/Child Study Laboratory classes. Students attend the laboratory class one day a week with their child and one evening each month.

FAM 149 (3) N
Parent Education/Child Study Lab: 2nd Parent
Students are parents of children, birth through 6 years of age, who enroll in Parent Education/Child Study Laboratory. Students participate in the laboratory and attend parent education opportunities as scheduled. The class is intended primarily for a second parent of a child in a Parent Education/Child Study Laboratory class, with the first parent enrolled in a FAM 145-146-147-148, 155-156-157-158, 165-166-167-168, 175-176-177-178, 185-186-187-188 course.

FAM 155,156,157,158 (?) N
Parent Education 12-24 Months
Students with children, 12-24 months of age, enroll in Parent Education/Child Study Laboratory classes. Students attend the laboratory class one day a week with their child and one evening each month.

FAM 165,166,167,168 N
Parent Education 24-36 Months
Students with children, 24-36 months of age, enroll in Parent Education/Child Study Laboratory classes. Students attend the laboratory class one day a week with their child and one evening each month.

FAM 175,176,177,178 N
Parent Education 36-60 Months
Students with children, 36-60 months of age, enroll in Parent Education/Child Study Laboratory classes. Students attend the laboratory class one day a week with their child and one evening each month.

FAM 180 (1-3) C,N
Black Parenting
Covers cognitive-behavioral principles and techniques to foster effective family communication, healthy African American identity, extended family values, child growth and development, and healthy self-esteem. Includes prevention and treatment roles in community efforts to address learning disorders, behavioral problems, and emotional disturbance.

FAM 181 (1-6) C,N
Star Parenting
Online class. The STAR process (Stop, Think, Act, Review) encourages those who work with children to investigate children’s temperament and development and to focus on long-range goals. Use the child’s current behavior to teach skills/values the adult wants. Guide by avoiding problems, responding to cooperation, acknowledging feelings, setting limits and teaching new skills. May be repeated for credit.

FAM 182 (5) N
Special Topics Child Care
Course for experienced family child care providers covering a variety of topics such as working with parents, special needs children, multi-cultural curriculum, dealing with stress and burnout, and management and personnel issues. Students attend a weekly seminar and receive credit for development and completion of learning objectives to be accomplished in their family day care home. Completion of the learning objectives is supervised by a faculty mentor.

FAM 183 (5) N
Special Topics Child Care
Special topics for childcare providers focusing on working with parents, special needs children, multi-cultural curriculum, dealing with stress and burnout and management and personnel issues.

FAM 185,186,187,188 (?) N
Parent Education 48-72 Months
Students with children, 48-72 months of age, enroll in Parent Education/Child Study Laboratory classes. Students attend the laboratory class one day a week with their child and one evening each month.

FAM 196 (1-3) C,N
Parent Education: Special Program
This class is for students enrolled in Parent Education/Child Study Laboratory: Special Programs classes. The course format includes lectures, discussions, and laboratory experiences designed to explore current research as it applies to child development. Students also fulfill specific obligations of individual classes. The course enables students to extract and adopt principles applicable to parenting, teaching, and child development.

FAM 197 (1-3) N
Parent Education: Special Programs
Students in this class may include children’s teachers, as well as parents and caregivers, who enroll in the Parent Education/Child Study Laboratory. Students participate in the laboratory as able, and attend parent education opportunities as scheduled. Students are welcomed and encouraged to attend other related workshops or classes offered in Parent Education or Child Development.

FAM 198 (1-3) N
Parent Education: Special Programs
Students in this class may include children’s teachers, as well as parents and caregivers, who enroll in the Parent Education/Child Study Laboratory. Students participate in the laboratory as able, and attend parent education opportunities as scheduled. Students are welcomed and encouraged to attend other related workshops or classes offered in Parent Education or Child Development.
Course Descriptions

**FAM 199 (1-3) N**

Parent Education: Special Programs

This class is for students enrolled in Parent Education/Child Study Laboratory: Special Programs classes. The course format includes lectures, discussions, and laboratory experiences designed to explore current research as applied to child development. Students also fulfill specific obligations of individual classes. The course enables students to extract and adopt principles applicable to parenting, teaching, and child development.

**Pastry**

See Culinary Arts, page 267.

**Pharmacy Technician**

PHA 112 (2) N

Pharmacy Law

Intro to federal and state laws regulating pharmacy practice. Emphasis on Washington state pharmacy law regulating pharmacy technicians.

PHA 115 (2) N

Orientation to Pharmacy Practice

Intro to pharmacy technician as a career. Includes history, pharmacy information resources and drug distribution control. Visit job to observe typical job tasks.

PHA 116 (1) N

HIV/AIDS and HIPAA

Intro to the basic concepts of HIV/AIDS including the treatment and prevention guidelines for patient care and a review of the HIPAA federal law as it pertains to the pharmacy technician.

PHA 120 (3) N

Pharmacy Calculations

Covers mathematics review and an intro to calculations encountered in pharmacy practice.

PHA 130 (2) N

Over-the-Counter Drugs

Overview and uses of drugs available without prescriptions (over-the-counter drugs).

PHA 140 (2) N

Sterile Procedures & Aseptic Technician

Covers aseptic technique in preparing sterile solutions and pharmaceuticals. Learn laminar flow hood usage, preparation of intravenous fluids and hyperalimentation fluids. Practice filling unit dose carts and preparing IV fluid labels using hospital-based software.

PHA 141 (2) N

Sterile Procedures/ASE Technician II

Continuation of PHA 140. Focus on the preparation of cardiac and other iterable drips, IV antibiotics, chemotherapy, IVPs and TPNs. Intro to hospital application software. Includes lab.

PHA 145 (1) N

Pharmacy Ethics

Focuses on commonly encountered ethical dilemmas from pharmacy practice. Intro to ethical decision-making models and problem-solving solutions.

PHA 146 (2) N

Communications in Pharmacy Practice

Examination of communication processes to see how they are influenced by the values, behaviors and beliefs that are defined by society and culture. Also explores communication within the pharmacy setting and how present laws influence this communication.

PHA 150 (3) N

Pharmacology I

Covers the principals of drug action including pharmaco-kinetics, anatomy and physiology of the nervous system and the drugs used in the treatment of disorders of the nervous system.

PHA 151 (3) N

Pharmacology II

Continuation of PHA 150. Covers the anatomy and physiology of the cardiovascular, gastrointestinal, endocrine and respiratory systems. Emphasis on the treatment of diseases of cardiovascular, gastrointestinal, and respiratory systems.

PHA 155 (1-3) N

Special Topics

Covers a variety of communication and leadership activities, including staff relationships, preparing a résumé and interviewing. Prereq: Permission.

PHA 160 (3) N

Pharmacy Technology I

Covers many uses of computers in pharmacy practice. Gain proficiency using two different pharmacy prescription-filling software programs. Fill real prescriptions in pharmacy lab.

PHA 161 (2) N

Pharmacy Technology II

Continuation of PHA 160. Intro to the top 200 drugs. Use pharmacy software to process real prescriptions in the pharmacy lab. Study computerized insurance billing and report generation. Intro to hospital and nursing home application software.

PHA 170 (4) N

Pharmacy Records Management

General overview of skills required to work in a retail pharmacy (ambulatory care). Introduces the skills to interpret prescriptions, such as Latin abbreviations, the top 200 drugs and apothecary symbols. Covers inventory control, third party insurance billing and pharmacy record-keeping.

PHA 190 (1-13) N

Pharmacy Technician Externship

Gain pharmacy technician experience in participating agencies, classroom guidance in assimilating experience and classroom assistance with problems. (13 credits generally provided over two-quarters, 5 + 8 credits).

PHA 191 (1) N

Job Skills National Exam Pre

Covers job search skills, résumé and cover letter writing techniques and the interview process to prepare students to seek a job as a pharmacy technician. Also reviews the subjects and process for the national exam for pharmacy technician.

**Philosophy**

PHIL 101 (5) C,N,S

Intro to Philosophy

Introduction to philosophical thought and issues, intellectual systems and writings of the great philosophers. Covers the nature of philosophy, the meaning of knowledge, values, reality and related subjects.

PHIL 102 (5) C,N

Cont. Moral Problems

Covers philosophical consideration of some of the major moral problems of modern society and civilization, such as discrimination, abortion, euthanasia, animal rights, world hunger and homelessness. Examines the issue of what means are justified in trying to bring about social change.

PHIL 110 (5) S

Intro to Social Ethics

Includes philosophical analysis of current or perennial issues in public affairs, such as the nature and scope of freedom in society, the justification of democratic government and the nature of social justice.
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<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>PHIL 111</td>
<td>5</td>
<td>N</td>
<td>Intro to Bioethics</td>
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<td>Examines ethical questions surrounding clinical medical practice, ethical issues in biomedical research and more general ethical questions concerning the maintenance and improvement of the health and well-being of communities at local and global levels. Focuses on newly emerging infectious diseases (AIDS, drug-resistant tuberculosis) and on environmentally-induced diseases, such as asthma, cancers, chemical sensitivity and reproductive disorders.</td>
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<tr>
<td>PHIL 160</td>
<td>5</td>
<td>C</td>
<td>Philosophy of Science</td>
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<td>Covers the historical development of selected concepts from science and the philosophy of science.</td>
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<tr>
<td>PHIL 210</td>
<td>5</td>
<td>C</td>
<td>Comparative Religion</td>
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<td>This course introduces the academic study of religion by using a comparative approach to a variety of religious traditions. We’ll ask, What is religion? We also will explore the ethical, metaphysical, and other philosophical stances found within and between various religions by examining their beliefs, rituals, texts, and practices. Prereq: ENGL 101.</td>
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<tr>
<td>PHIL 215</td>
<td>5</td>
<td>C,N,S</td>
<td>Introduction to Ethics</td>
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<td>PHIL 220</td>
<td>5</td>
<td>N</td>
<td>Environment Human Rights</td>
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<td>Addresses ethics and human rights standards in general as well as the relevance of norms and instruments for environmental concerns. Examines ways ethical principles and international human rights norms apply to specific environmental and sustainability issues. Covers practical measures taken by human rights organizations to effect change.</td>
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<td>PHIL 240</td>
<td>5</td>
<td>C,N</td>
<td>Liberation Ethics</td>
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<td>Examines the morality of liberation, through general theoretical and conceptual analysis, with the focus of inquiry on conceptions of liberty, oppression and justice. Also examines personal identity and individual community/social interaction; social/cultural groups within the United States and North America; and social/cultural groups outside of North America and Western Europe.</td>
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<tr>
<td>PHIL 250</td>
<td>5</td>
<td>C</td>
<td>Feminist Perspectives</td>
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<td>Focuses on questions such as the nature of sexism and feminism; ‘sisterhood’ as an empowering, unifying truth or an oppressive, difference-stifling myth; the relationship between sexism and other forms of oppression; and between sex and gender. Is celebrating feminism a uniquely female way of knowing or is it being morally judgmental, sexist or feminist? Prereq: Eligibility for ENGL 101.</td>
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<tr>
<td>PHIL 255</td>
<td>5</td>
<td>C</td>
<td>Marxist Philosophy Exam</td>
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<td>Examines Marxist philosophy: What is the nature of capitalism? What is exploitation? What are some Marxist criticisms of capitalism? Does Marxism clarify or distort the phenomenon of racism? What reasons, if any, are there why lesbians, gays, or bisexuals should support Marxism? Is Marxism Euro-centric? Can a person consistently support both Marxism and feminism? Must a Marxist be opposed to religion? What is political freedom? Prereq: Eligibility for ENGL 101.</td>
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<tr>
<td>PHIL 267</td>
<td>5</td>
<td>C,N,S</td>
<td>Philosophy of Religion</td>
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<td>Explores major issues of religion, including the nature of religious experience, the idea of the holy, God and gods, the problem of evil, the quest for transcendence, the question of authentic and unauthentic religious forms, religious relativism, mysticism and the contemplative life.</td>
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<tr>
<td>PHIL 287</td>
<td>1-5</td>
<td>C,N,S</td>
<td>Independent Study In Philosophy</td>
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<td>Independent study in selected philosophical topics under faculty supervision. Prereq: Permission.</td>
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<tr>
<td>PHIL 298</td>
<td>1-5</td>
<td>C,N,S</td>
<td>Seminar in Philosophy</td>
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<td>Examines great philosophical questions and philosophers by instructor and student agreement.</td>
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<tr>
<td>PHIL 110</td>
<td>7</td>
<td>V</td>
<td>Phlebotomy</td>
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<td>Phlebotomy 110 addresses the role of the Phlebotomist and daily functions performed in a variety of health care settings and includes live venipuncture procedures. Medical assepsis/hand washing, anatomy and physiology, medical terminology, patient reception, patient rights, consent, assessment, patient interaction and specimen custody are included in this course.</td>
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<tr>
<td>PHIL 120</td>
<td>6.5</td>
<td>V</td>
<td>Phlebotomy II</td>
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<td>Phlebotomy 120 addresses the advanced role of the Phlebotomist and daily functions performed in a variety of health care settings and includes live venipuncture procedures. Accessioner duties, the theory of arterial blood gases, capillary puncture, microcollection, drug testing, point of care testing, advanced/critical patient assessment, dehyeration, anticoagulation therapy, lymphedema, edema, obesity, intravenous therapy, hemocentration and hemolysis are included in this course.</td>
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<tr>
<td>PHO 110</td>
<td>3.5</td>
<td>C</td>
<td>Survey Photography</td>
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<td>Explores the varied career paths found in professional photography. Emphasis is placed on the creative styles and trends in image making, from the first Daguerreotypes to the HDSLR storytellers of today. Entry-level issues such as working conditions, time management, organizational strategies and professional ethics will also be examined. Prereq: Permission.</td>
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<tr>
<td>PHO 111</td>
<td>3.5</td>
<td>C</td>
<td>Digital Capture Technology</td>
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<td>Addresses the terminology and ethics of capturing digital images. Covers the functions and operation of HDSLR cameras. Introduces techniques for determining optimum exposures and basic compositional aesthetics. Includes development of an organized file management system utilizing Adobe Lightroom and parametric editing in Capture One. Prereq: Permission.</td>
</tr>
</tbody>
</table>
### PHO 112 (3.5) C
**Light Tech I**
Covers the basic methods of commercial lighting; the laws, principles, and practices of light; the qualities of direct/indirect sunlight and tungsten light sources; lighting for form, texture. Introduces standards for the safe operation of lighting equipment in a studio environment. Prereq: Permission.

### PHO 113 (3.5) C
**Audio Production**
Covers sound theory and the best practices for sound recording and audio editing to develop skills as effective audio storytellers. Includes use of various microphones and audio recorders to effectively record sound or voice on location and in a controlled environment. Introduces use of Adobe Audition and Premiere to layer sounds to create audio narratives. Includes development of skills to become more critical in hearing sound. Prereq: Permission.

### PHO 120 (3.5) C
**Concept Development**
Introduces visual conceptualization skills required in commercial photography. Includes attention to techniques and processes that support creative and aesthetic development. Explores approaches to critique and the art market. Fosters creativity and aesthetic development. Prereq: Successful completion of first quarter commercial photography program courses with a minimum grade of 2.0 in each course.

### PHO 121 (3.5) C
**Digital Image I**
Covers the creative and technical requirements of digital image optimization using Adobe Photoshop Creative Cloud. Includes interface navigation, tools, layers and filters, creation and manipulation of image selections, adjustments of color and contrast, use of retouching, masking, cropping, and basic image composing, and the export of images for print and web. Prereq: Successful completion of first quarter commercial photography program courses with a minimum grade of 2.0 in each course.

### PHO 122 (3.5) C
**Lighting Techniques II**
Covers studio techniques for lighting people. Addresses safe operation of studio equipment for portrait lighting setups. Introduces three-dimensional contrast in a traditional portrait studio setting. Includes subject rapport, subject posing and development of a theme-based narrative using advanced lighting techniques while demonstrating set construction skills. Prereq: Successful completion of first quarter commercial photography program courses with a minimum grade of 2.0 in each course.

### PHO 123 (3.5) C
**Video Production I**
Introduces basic video capture techniques including HDSLR camera operation. Includes an overview of Adobe Premiere's interface, tools, features, and a basic production workflow. Covers working in production teams, environmental aesthetics, establishing a point of view, capturing the decisive moments in short clips, and assembling final video in the editing process. Prereq: Successful completion of first quarter commercial photography program courses with a minimum grade of 2.0 in each course.

### PHO 131 (3) C
**Darkroom Techniques I**
Intro to digital darkroom procedures and file processing, including white point, tone curves, hue, saturation and luminance. Create a file management system using Adobe Lightroom. Experiment with printing papers, folder hierarchy, metadata, copyright and database file management.

### PHO 132 (3) C
**Darkroom Techniques II**
Explore digital darkroom procedures and digital file processing using advanced techniques in Lightroom. Learn redundant data protection systems, global and selective image manipulation, and integration solutions with assorted image manipulation software. Learn to see color and produce accurate color output.

### PHO 133 (3) C
**Retail Photography**
Learn advanced retail portrait and wedding photography techniques: seeing and using available light; using on-camera strobe units; choosing pleasing poses and flattering lighting; sequencing photos to tell a wedding story; and adding words and music to increase emotional and saleable impact. Includes retail sales materials, presentations and pricing strategies.

### PHO 141 (3) C
**Survey of Photography**
Examines the multiple opportunities and challenges of professional photography as a career. Covers technical history from Daguerreotypes to HDSLR storytellers, and master photographers of many styles. Additional emphasis on business practices: working conditions; time management; organizational strategies; and professional ethics.

### PHO 142 (4) C
**Digital Imaging**
Intro to Photoshop software for creating and manipulating bitmapped graphics. Develop non-destructive, image-editing workflows for digital image processing and enhancement, color management, image selection, compositing, burning, dodging, retouching, tonal or color correction and modification. Adapt print resolution, size and format for print, video and web.

### PHO 143 (3) C
**Digital Media Production**
Learn multimedia storytelling, narrative forms and techniques. Develop a better understanding of using images and audio to advocate, communicate or address a specific subject or issue.

### PHO 197 (1-5) C
**Work Experience/Photography**
Earn work experience credit in the photography field. Contact the Photography program for details.

### PHO 214 (4) C
**Catalogue Production**
Create professional quality images for a multiple-page catalog layout, by producing a mini-catalog using traditional and digital photographic techniques. Explore personal photographic style. Collaborate on advertising assignments.

### PHO 215 (4) C
**Advertising Production**
Working with a local, community-based non-profit organization, develop and produce an advertising campaign. Learn all aspects of advertising production, including business components such as negotiating fees and expenses. Present completed campaigns to a panel of industry professionals.

### PHO 224 (4) C
**Communication Production**
Intro to shooting motion/video with a DSLR camera. Research, plan, direct and produce a completed video project. Learn techniques for writing treatments, scripts and storyboards. Covers video shooting techniques and use of video production equipment.
PHO 225 (3) C
Conceptual Development
Intro to visual conceptualization skills, elements and principles of 2-D design. Study techniques and processes that support creativity and aesthetic development. Explore the critique process. Focus on developing individual creativity and photographic style.

PHO 234 (3) C
Professional Business Practices I
Intro to small business development and management for the professional photographer. Learn to write a business plan for commercial or retail markets. Covers retirement planning, insurance, taxes, copywriting, budgeting, accounting, estimating, pricing and negotiating. Follow an assignment from first phone call to invoice. Acquire business licenses and join professional organization(s).

PHO 235 (3) C
Professional Business Practices II
Focuses on marketing practices. Write and implement a marketing plan, create self-promotion materials for mail, web, social media and in-person presentations. Present final marketing plan to industry professionals for critique.

PHO 244 (3) C
Visual Narrative
Learn to use industry standard video editing software for post-production, non-linear editing of digital video. Covers basic digital video and audio editing workflows. Learn to support a narrative by incorporating continuity and logical sequencing of both video and audio clips.

PHO 245 (3) C
New Media
Broaden understanding of image editing techniques including advanced retouching, layering, masking and color adjustments for basic web design. Learn to use templates to build sites. Create and publish online a basic website using image editing and design software.

PHO 254 (4) C
Portfolio I
Intro to the processes of creating a professional-level portfolio as a marketing and job search tool. Includes various presentation methods, including electronic portfolios. Create marketing materials: business card, stationery and self-promotion pieces.

PHO 255 (4) C
Portfolio II
Continuation of PHO 254. Produce portfolio-quality images and computer-generated portfolio pages. Investigate traditional and electronic alternatives for portfolios. Create a résumé and an information page for a website. Meet with industry professionals to discuss tools needed after graduation.

PHO 256 (4) C
Portfolio III
Assemble a final portfolio of images that represents the student’s creative voice and professional direction, for presentation to multiple clients, representatives and agencies. Continue learning about production stages of multiple, complex location shoots.

PHO 266 (3) C
New Media Workshop
Edit, sequence and prepare images for the website project from previous quarter. Finalize the website and all promotional materials. Complete a printed portfolio. Create a shot list and shot plan for the week-long Port Townsend Portfolio Shoot-out.

PHO 276 (3) C
Portfolio Workshop
Prepare materials for the annual Portfolio Show. Design individual show stations and work with committees to plan the two-day event. Work with faculty to edit and select images. Meet with industry professionals in one-on-one interviews and portfolio reviews.

PHO 286 (3) C
Special Projects
Focus on career entry and development by studying various projects such as employment strategies, technological innovations and global marketplace opportunities. Seek critical feedback on portfolios from professionals and develop professional relationships.

PE 204 (2) C,N,S
Beginning Martial Arts
Learn the practical self-defense techniques and philosophies of Goju Ryu Karate-do including fundamentals of stances, blocks, strikes, kicks, movement and offensive and defensive strategies.

PEC 105 (2) C,N
Intermediate Martial Art
For individuals at intermediate skill level. Adjust to the type of self-discipline and interaction required in the Goju Ryu Karate. Prereq: PEC 104, or formal rank up to and including green belt.

PEC 106 (2) C,N
Advanced Martial Arts
For advanced skill levels. Foster self-improvement and appreciation of Karate as an art, sport, physical conditioning and self-defense tool. Prereq: Intermediate skills, successful completion of PEC 105 or formal rank of brown belt or higher.

PEC 109 (2) C,N
Slimnastics, Co-Ed
Exercise course adapted to individual needs for body muscle toning and weight control.

PEC 110 (2) C,N,S
Cardio-Fitness
Improve cardio-respiratory fitness through rhythmic, dynamic, large-muscle exercise performed to music. Workouts consist of warm-up, workout, cool-down, strengthening and flexibility. Current fitness-related issues, trends and topics included.

PEC 111 (2) C,N
Beginning Swimming
Swimmers of all abilities are taught to improve their swimming strokes according to Red Cross Standards, and to improve their fitness levels.

PEC 112 (2) C,N
Intermediate Swimming
Skills and techniques of swimming. Prereq: Beginning Swimming.

PEC 113 (2) C,N
Beginning Badminton
Intro to basic skills of badminton: clears, serves and drives. Covers rules of play and basic singles and doubles strategies. Opportunity for game play and tournament play.

PEC 114 (2) C,N
Beginning Tennis, Co-Ed
Intro to the rules, history, techniques, skills and strategies of tennis. Reinforce and apply learning through game play and competition.

Physical Education

NOTE: All physical education courses are co-ed.

PE 050 (5) S
PE-Career Link
Introductory fitness class designed to increase students’ awareness of the importance of fitness. We plan to empower students to have the knowledge to design their own fitness programs and understanding of health based topics. Includes a variety of physical activities and exercise that may be adapted to your personal fitness performance. For all fitness levels.
PEC 115 (2) C,N
Beginning Volleyball
Learn basic volleyball skills: forearm and overhead passing, serving and spiking. Includes basic offensive and defensive strategies for 6-on-6 team play. Opportunities for modified game play and tournament play.

PEC 118 (2) C,N
Intermediate Tennis, Co-Ed
Provides the opportunity to practice the proper techniques and strategies associated with tennis and focus on advanced technical skills.

PEC 121 (2) C,N
Handball
Development of basic ballroom dancing skills. Dance styles include the waltz, rhumba, cha cha, samba, foxtrot and swing.

PEC 129 (2) C,N
Intermediate Volleyball
Covers intermediate level attacking, passing and serving techniques and multiple offensive systems and defensive patterning practice. Assumes basic volleyball skills. Prereq: PEC 115 or permission.

PEC 130 (2) C,N
Beginning Basketball
Covers basic individual skills of dribbling, passing and shooting, team skills and strategies. Includes in-class drills, modified game play, structured scrimmage and tournament play.

PEC 131 (2) C,N,S
Beginning Weight Training
Using a variety of resistance equipment, includes both individualized and instructor-driven programs: super-set, pyramid and circuit training. Includes safety, nutrition, supplementation, muscle anatomy and physiology, steroids and other ergogenic aids.

PEC 132 (2) C,N,S
Intermediate Weight Training
Continuation of PEC 131. Includes both individualized and instructor-driven intermediate programs. Prereq: Prior experience and a working knowledge of weight training.

PEC 136 (2) C,N,S
Yoga
Covers postures or asanas, breathing, meditation exercises for physical and mental fitness. Presents yoga as a philosophy and an art form, introducing a number of poses with their purposes.

PEC 137 (2) C,N,S
Yoga II
Builds on PEC 136 with stronger asana/postures and further discussion of Yoga principles and philosophy. Prereq: PEC 136 or permission.

PEC 139 (2) N
Yoga Pilates
Integrates Pilates matwork and yoga poses to improve posture, strength, flexibility, coordination and balance. Connects body-centered activity with mind-centered activity through breathing and relaxation practice. Includes movement mechanics, yoga and Pilates information, nutrition, and other health themes.

PEC 143 (2) C,N,S
Walking for Fitness
Develops cardio-respiratory fitness through progressive workouts including warm-ups, walking sessions and cool-downs. Covers safety, walking technique and issues and trends related to walking and physical fitness.

PEC 145 (2) C,N,S
Jogging
Develops cardio-respiratory fitness through progressive workouts including warm-ups, walking sessions and cool-downs. Covers safety, jogging technique and issues and trends in jogging and physical fitness.

PEC 150 (1-3) C,N,S
Physical Fitness
Instruction in developing, executing and maintaining individualized fitness programs. Emphasis on cardio-respiratory fitness, muscular strength and endurance and flexibility. Includes fitness, nutrition and wellness.

PEC 151 (1-3) C,N,S
Physical Fitness
Instruction in manipulating existing individualized fitness programs to meet personal goals, emphasizing health-related fitness. Includes fitness, nutrition and wellness.

PEC 154 (1) N
Smart Cycling
Go By Bike Classroom and on-bike study of principles of traffic, traffic laws, safety equipment, bicycle safety checks, health and nutrition, bicycle handling skills, lane positioning, safer practices for riding in traffic and critical thinking for smart cycling. Emphasizes safety, utility and fun.

PEC 155 (3) C,N,S
First Aid & Personal Safety
American Heart Association Heartsaver First Aid CPR AED certification (adult, child, infant). Basic Life Support (BLS) for Healthcare Providers certification is available as an option. Provides instruction in advanced rescue skills including two-person CPR, pocket mask, and bag-valve-mask.

PEC 160 (2) C,N,S
Step Aerobics
Development of cardio-respiratory and musculoskeletal fitness by incorporating choreographed, rhythmical movements performed on a bench or step. Discussions include current fitness-related issues and trends.

PEC 162 (2) N
Step and Sculpt
For all experience levels. Gain or maintain overall fitness levels. Workouts include warm-up, cardiovascular, cool-down, strengthening, and flexibility components. Perform dynamic, large-muscle movements on a bench designed for step aerobics. Sculpting incorporates hand-held weights, resistance bands, body bars, and other equipment.

PEC 165 (2) C,N,S
Body Conditioning
An activity-based class incorporating the fundamentals of cardiovascular fitness, strength training, and flexibility. Improve physical fitness with the use of weights, resistance bands, aerobic exercises. Lectures will include information on a variety of wellness topics. Required practice of different exercise modalities outside of class meetings.

PEC 170 (2) C,N
Intro to Jazz Dance
Covers fundamentals of dance technique while improving strength, flexibility and anaerobic capacity. Builds postural awareness and develops motor skills through jazz style, which borrows from ballet and contemporary street dance. Includes safety, injury prevention, spinal health and nutrition.

PEC 171 (2) N
Intro to Dance
Introduction to Dance teaches the fundamentals of dance technique while increasing levels of strength, flexibility and anaerobic capacity. A brief history of each style and how it has evolved, as well as vocabulary synonymous with dance will also be introduced. Topics include ballet, modern, and hip-hop styles of dance along with basic composition of dance. The class will be taught in four sections; a brief lecture, dance technique and warm-up, traveling motor skills, and a movement combination.
PEC 172 (2) C
Intro to Salsa & Latin Dance
Students learn dance posture, rhythm, and the techniques of leading and following for four styles of dance from Latin America, including Salsa. The class includes an introduction to Latin music theory and emphasizes the rich history and culture that surrounds these dances. No partner necessary.

PEC 173 (2) C
Intro to Swing
Students learn dance posture, rhythm, and the techniques of leading and following for four styles of dance from the United States, including East Coast Swing, Lindy Hop, Charleston, and Shim Sham jazz steps. This class includes an introduction to Jazz music and emphasizes the rich history and culture that surrounds these dances. No partner necessary.

PEC 175 (2) C,N
Ballet Basics
Covers fundamentals of ballet style. Stresses proper technique and body mechanics to avoid dance-related injury. Emphasis on flexibility and strength, focusing on basic movements (plie, tendu, developpe and battement), joint stability and range of motion. Includes kinesthetic memory, basic nutrition, rest and the application of ballet to other dance and movement styles.

PEC 179 (2) N
Dance Fusion
Learn various dance genre (hip hop, contemporary, modern, classical, ballroom, and Latin) basics in a fast-paced, cardio dance environment with choreography performed to contemporary, hip-hop, Latin and pop music. Students should plan to sweat, burn calories, learn more about cardiovascular training and aerobic exercise, as well as meet others with similar fitness goals.

PEC 180 (2) N,S
Total Body
Training incorporates an overall conditioning plan through a variety of activities selected to improve aerobic stamina, muscular strength and endurance, and flexibility. Activities may include high-low and step aerobics, weight training/sculpting, kickboxing, yoga, Pilates and circuit training.

PEC 181 (3) C
Wellness Management
Covers the fundamentals of a complete wellness program. Principles of fitness, healthy eating, stress management, goal setting, positive lifestyle choices, and application of these components. Includes physical activity, self-monitoring, on-line and in-person lecture, and group interaction. Class requires participation online and in-person, on-campus.

PEC 182 (2) N
Fusion Fitness
Fusion Fitness incorporates a three-component conditioning plan to challenge and improve aerobic stamina, muscular strength and endurance, power, and flexibility. The three components include: “Turbo” (kickboxing, running, interval training, stair climbing, and similar aerobic activities.), “Pump” (body weight training, sculpting, core training, circuits, and similar muscular training activities), and “Power” (boot camp, Tabata, burpees, mountain climbers, and similar power activities).

PEC 298 (1-5) C,N,S
Special Topics
Seminar on selected topics and/or activities in physical education. Prereq: Variable, depends on topic.

PEC 299 (1-5) C,N,S
Independent Study
Independent study of approved topics in physical education. Prereq: Permission.

Physics

PHYS& 100 (5) C,N,S
Physics Non-Science Majors
Basic laws of physics, such as motion, sound, gravitation, energy, heat and temperature, electricity and magnetism, light, relativity, quantum theory, and nuclear physics. For non-majors. Non-lab course. Prereq: Eligibility for MATH 084, 087, or 091 (C).

PHYS 111 (5) S
Technical Physics I
Includes force, linear and angular motion; work, energy, and power; rotation, torque, and power transmission; friction and the analysis of basic machines; structure of materials and the properties of solids. Prereq: MATH 111.
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Course Descriptions

PHYS& 223 (5)  C,N,S
Engineering Physics III
Intro to waves and oscillations and the study of sound, geometric and physical optics. Covers the dualistic particle-wave nature of microscopic phenomena as an intro to modern physics. Lab included. Prereq: MATH& 152, PHYS& 222 (N,S); MATH& 152 with 2.0 or higher, PHYS& 222 (C).

PHYS 298 (1-5)  C,N,S
Special Topics
Independent work in physics laboratory and/or library. Prereq: Permission.

PHYS 299 (1-5)  C,N,S
Independent Study
Independent study of physics problems or topics. Prereq: Permission.

Political Science

POLIS& 101 (5)  C,N
Intro Political Science
Explores the origin and development of the study of political science. Examines the origins of government systems, political theory, comparative systems, political socialization, public administration, political parties and elections, technology, political economy, globalization, and international relations. Foundation course for political science studies.

POLIS 170 (5)  C,N
Minority Politics in USA
Focuses on socio-political developments leading to current status of minorities in America. Surveys U.S. legislative history and citizenship. Covers critical review of proposed solutions to minority tensions.

POLIS& 202 (5)  C,N,S
American Government
Survey of the origin and functions of the U.S. government. Examines the Articles of Confederation, the Constitution, and the creation of the federal system. Analyzes the functions of Congress, the Presidency and Courts. Topics include political socialization, ideology, interest groups, political parties, and elections.

POLIS& 203 (5)  C,N,S
International Relations
Introduction to international relations and governmental organizations. Examines major issues in the international arena including nationalism, national sovereignty, globalization, international law, economics, security, environmentalism and foreign policy. Emphasis on issues that foster or frustrate world peace and prosperity. Transfer class.

POLIS 205 (5)  C,N
Political Economy
Study of basic economic terms and concepts, by surveying various nations and regions politically and economically. Study how nations and regions economically compete with one another. Includes study of human and non-human resources, the international monetary system, government business activity, development and international law.

POLIS 213 (5)  C,N
Women and Politics
Intro to concepts of power and policy issues as they relate to women. Covers theoretical, historical and empirical studies of women's participation in social and political movements nationally and internationally. Studies women's diverse roles in relation to family, economics, labor, government and law.

POLIS 255 (5)  C,N
Government & Politics of Middle East
Problems of traditional society versus construction of a modern state. Emphasis on Arab-Israeli relations and impact on international affairs.

POLIS 299 (1-5)  C,N,S
Independent Study in Political Science
Independent research and writing on selected political science topics under faculty supervision. Prereq: Permission.

POLIS 301 (3)  S
Workforce Instructional Methods & Materials
Provides an overview of established training principles and practices for aspiring instructors or trainers. A variety of instructional methods will be focused on, including: lecture, discussion, demonstration, and small group work. Different learning options will be addressed, including: Prior learning assessment (PLA), competency-based, project-based, and apprenticeship. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

POLIS 302 (3)  S
Course Development Design
This course presents models and processes for curriculum design appropriate to the adult setting. Content includes: scope and sequence, competency-based models, syllabus development, writing course objectives, and creating assignments. Program planning, technical advisory boards, industry standards, and accreditation standards will be discussed. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

American Community College

PTE 310 (3)  S
Manage Learn Environment
This course is designed to help students develop a management plan for instructional materials and supplies. Emphasis is on shop, laboratory, and classroom safety practices. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

PTE 311 (3)  S
Technology in Learning
This course covers how to identify, evaluate, and implement new and emerging technologies relevant to instruction. A variety of applications will be covered to include in student-created curriculum. The focus will be on current curriculum development practices. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

PTE 312 (3)  S
American Community College
This course explores the history, present status, student diversity, student services, ethical issues, and future directions of the American community college. Students will research and develop at least one grant proposal relevant to their discipline. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

PTE 313 (3)  S
Online Teaching Methods
Provides an overview of best practices for creating online content, teaching online, and student management of online courses. Students will practice skills during class and will begin to create an online course using the Canvas LMS. This course is intended for Professional Technical instructors who would like to teach online. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.
Professional Portfolio
This course will require students to document prior work experience by developing a portfolio and will culminate in receiving Workforce Experience Practicum credit. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Workforce Experience
Practicum Credits earned will be based on the successful completion of the Professional Portfolio course (PTE 314). Students must have demonstrated 2 or more years of relevant work experience in their area of interest. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Adult Learning
This course introduces students to adult learning theory, learning styles, learning processes, learning development, and student motivation. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Student Support Guidance
Evaluate student completion theories and develop the skills necessary to respond to student needs, including scheduling and holding office hours, providing multiple modes of communication, and understanding professional obligations regarding student contact. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Assessment of Learning
Students will learn how to design and develop evaluation processes to be integrated into classroom learning. Course content will include prior learning assessment, formative assessment, summative assessment, and will be linked to learning outcomes. Accreditation standards and processes will be addressed. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Legal Issues Ethics Education
An introduction to how legal implications from local, state, and federal sources guide professional practice. Evaluate social, economic, and political issues that influence professional ethics and practice. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Diversity Globalism Education
Examine cultural competence and the effects of globalism in the educational setting. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Project Management Recruitment
Learn all aspects of program management and leadership, including student recruitment. Covers program budgets, staffing, facilities, and scheduling. Develop a recruiting plan for a current program or intended area of instruction. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Professional Development Cert
Develop a professional development plan per WAC 131-16-92 and attain an Initial Washington State Professional Technical Teacher Certification. Additional requirements for certification include CPR and First Aid. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Teaching Internship
Observe, reflect, and practice teaching adult learners in a technical, post-secondary environment. Find a technical teaching placement in their field of interest and work with an adult educator (site supervisor) to develop and deliver relevant curriculum. Both the site supervisor and college faculty advisor will evaluate the internship. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Capstone
Project-based course offered during the student’s last quarter of study. Draws on all previous classes and internship experiences. Prereq: Current enrollment in Professional Technical Teacher Education B.A.S. program or instructor permission.

Special Topics
Special topics in teaching or leadership as agreed upon by the student and a faculty member.

Behavioral Psychology
This course addresses the psychological aspects of the health professional relative to work environment, patient care/interactions and daily living. Throughout the course aspects of hierarchy of needs, effective communication, death and dying, the grieving process, conflict resolution, verbal and non-verbal communication, spatial separation, cultural diversity, managing stress, motivation, the need to belong, and achievement motivation are discussed. Prereq: Permission.

General Psychology
Intro to the scientific study of human behavior, including learning and thinking, development, perception, motivation, emotion, personality and individual differences, social and abnormal behavior, and research methods.

Psychology of Adjustment
Covers the study of personality within the framework of the social system and the application of proven psychological principles to problems of adjustment and conflict faced in daily living.

Lifespan Psychology
Survey of human physical, psychological, and social development from conception through death. Emphasis on major developmental theories, research and research methods of studying life-span development. Prereq: PSYC& 100 or permission.

Health Psychology
The psychological, biological and social factors behind health, illness and overall well being is presented. Topics include: stress, pain, coping, chronic diseases and behavioral health.

Developmental Psychology
Analysis of psychological development of the child in relation to biological, physical and sociological antecedent conditions from conception through adolescence. Prereq: PSYC& 100 or permission.
### Course Descriptions

**Course Code** | **Units** | **Prerequisites** | **Course Title** | **Description**
--- | --- | --- | --- | ---
**PSYC 209** (5) | C,N | Fundamentals of Psychological Research | Examines the scientific method, hypothesis testing and designs of qualitative and quantitative research. Covers the search and evaluation of research literature in psychology, descriptive statistical analysis, fundamentals of scientific writing, ethical issues and cross-cultural considerations in psychological research. Includes a research project. Prereq: PSYC 100 or equivalent.

**PSYC 210** (5) | C,N | Personality & Individual Differences | Intro to the study of personality and individual differences, including theory, measurement and research. Application of psychological principles to problems of everyday life.

**PSYC 220** (5) | C,N,S | Abnormal Psychology | Intro to theories of psychopathology and behavioral changes associated with abnormal behavior. Emphasizes ethical issues of diagnosis and treatment and major diagnostic categories such as schizophrenia, depression and anxiety disorders, and disorders of childhood and old age.

**PSYC 222** (5) | C,N | Survey of Physiological Psychology | Covers workings of the nervous system. Explores the brain's capacity in language, hunger and thirst, learning and memory, emotions, sexual behavior, depression, schizophrenia and repair after injury. Recommended: PSYC 100 or a biological science course.

**PSYC 225** (5) | S | Psychology of Addiction | Psychology of addiction, a critical examination. 5 credit class. 200 level course. Prereq: PSYC 100 General Psychology or SOC 101 Intro to Sociology This is a dual PSYC/SOC course.


**PSYC 245** (5) | C,N,S | Social Psychology | Examines the effect of others on self-concept, social cognition, aggression, conformity, helping, loving and liking, competition and cooperation, and prejudice and discrimination. May be taken as SOC 245.

**PSYC 250** (5) | C,N | Psychology of African Americans | Provides an in-depth look at contemporary psychological research and issues involving African Americans. Includes Black personality, institutional racism and the educational system, counseling African Americans and methods of dealing with racism in daily life.

**PSYC 257** (5) | C,N | Psychology of Gender | Explores major psychological theories of sex differences. Examines studies of sex-role development and biological and environmental influences that may determine and maintain sex differences in aggression, cognitive abilities, achievement, motivation, affiliation and sexuality. May be taken as WMN 257.

**PSYC 260** (5) | C | Psychology of Racism | Overview of theories and research concerning factors and contexts that contribute to racial/ethnic discrimination in the U.S. and the multilevel consequences for minority groups and the broader U.S. society. Covers socioeconomic, political, and historical structures and their consequences on racial/ethnic identity. Emphasizes how multiculturalism can have a positive impact and provide a safe space for discussion.

**PSYC 265** (5) | C | Practicum in Psychology | Practicum in the application of basic psychology principles. Specific seminar and practical areas and evaluation criteria established by an educational contract. Prereq: PSYC 100 and permission.

**PSYC 298** (1-5) | C,N,S | Independent Study In Psychology | Independent study in selected psychology topics under faculty supervision. Prereq: Permission.

**PSYC 299** (1-5) | C,N | Psychology Seminar | Small group seminar for study and discussion of selected psychology topics. Prereq: Permission.

**Real Estate**

*All real estate courses meet Department of Licensing (DOL) requirements for renewal and educational clock hours of real estate and/or appraisal licenses.*

**RES 100** (5) | N | Real Estate Fundamentals | Covers fundamentals of real estate industry, including sales and listing practices, financing, appraising, title, real estate law, escrow and property management. With RES 140 prepares students for the WA State Real Estate Broker Licensing Exam. (60 DOL clock hours)

**RES 101** (5) | N | Technology for Real Estate | Learn Microsoft's Word, Excel, Outlook, Publisher and the internet to create marketing materials, manage time and contacts, communicate, create spreadsheets, and professional letters. Learn internet resources specifically for Real Estate Industry. Some computer experience highly recommended. (50 DOL clock hours)

**RES 106** (1) | N | Real Estate Fraud | Covers real estate fraud in the sales, finance and appraisal industries. Study fraud cases, the local and national extent of the problem, and the impact on the market place. Learn to avoid potential fraudulent acts. Recommend RES 100 or concurrent. (10 DOL clock hours)

**RES 107** (1) | N | Foreclosures Short Sales | Learn the foreclosure process. Examine the legal issues professionals and investors should consider before being part of a foreclosure or short sale/mortgage elimination. (10 DOL clock hours)

**RES 110** (3) | N | Intro to Commercial Real Estate | Learn about the opportunities in commercial real estate, and how to list, sell and lease various types of investment properties. Use finance as a tool to increase profits. Learn to establish market value and return for investments in office buildings, industrial properties, apartments, shopping centers and retail stores. (30 DOL clock hours)
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<th>Description</th>
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<tbody>
<tr>
<td>RES 120</td>
<td>1.5</td>
<td>Principles of Maintenance &amp; Repair</td>
<td>Study maintenance and repair for residential and commercial properties. Learn to recognize maintenance problems and schedule preventative maintenance and repairs. Explore HVAC, roofing, landscaping, and janitorial services. Analyze maintenance and service contracts. (15 DOL clock hours)</td>
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<tr>
<td>RES 130</td>
<td>3</td>
<td>Green Real Estate</td>
<td>Learn how sustainability and green building are transforming the real estate market. Focus on basic building science to value green strategies related to water, energy, design, materials, site development. Recognize emerging demographics of green-minded consumers. Distinguish between traditional and the spectrum of green building. WA licensed real estate broker prep course for BUILT GREEN® RE Pro Certification. (30 DOL clock hours)</td>
</tr>
<tr>
<td>RES 131</td>
<td>2</td>
<td>Green Building Materials</td>
<td>Learn how material choices affect real estate home sales and listings. Includes smart material choices affecting indoor air quality and occupant health, energy efficiency and water conservation products that enhance comfort and increase utility savings. Learn how to talk to green home buyers about material choices and how to work with clients preparing for sales and listing. Prereq: Recommend RES 130. (DOL clock hours)</td>
</tr>
<tr>
<td>RES 132</td>
<td>3</td>
<td>Marketing Education &amp; Ethics in Sustainable Development</td>
<td>Understand needs of green clients and communicate effectively. Covers marketing green projects through traditional strategies, new technologies, and creative approaches. Emphasizes education of clients and ethical responsibilities of agents in selling green properties. Intro to greenwashing. Prereq: Recommend RES 130. (30 DOL clock hours)</td>
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<tr>
<td>RES 133</td>
<td>2</td>
<td>Energy Efficient Design</td>
<td>Learn green techniques for upgrading, constructing and maintaining energy efficient homes. Covers design, building processes, alternative envelopes, energy generation systems, energy saving products, home performance testing such as infrared thermography, rebate and incentive programs, regional greenhouse gas issues and planning. Recommend RES 130 or concurrent. (DOL clock hours)</td>
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<tr>
<td>RES 134</td>
<td>1.5</td>
<td>Smart Locations Integration</td>
<td>Covers integrated planning and strategies to lessen the impact of homes and communities on the environment and local watersheds. Includes transit, mixed-use development, habitat protection, green master planned communities and urban villages in low impact design. Prereq: Recommend RES 130 or concurrently. (DOL clock hours)</td>
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<tr>
<td>RES 135</td>
<td>2</td>
<td>Healthy Buildings &amp; Indoor Air Quality</td>
<td>EPA says air in homes is 3-5 times more polluted than outside air. Discover sources of indoor pollution and learn to avoid or mitigate them. Covers construction practices that reduce mold and dust, and energy efficiency strategies that enhance air quality. Learn how choices about materials, site, and landscaping relate to air quality. Recommend RES 130 or concurrent. (DOL clock hours)</td>
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<tr>
<td>RES 140</td>
<td>3</td>
<td>Real Estate Sales &amp; Practice</td>
<td>Pre-license course for the Washington Real Estate Broker's License Exam and to enter the residential real estate sales industry. Includes sales techniques and practices; evaluating, pricing and showing property; listing and purchase/sale agreements; obtaining and servicing listings; qualifying the buyer; negotiating and servicing the sale, agency, planning and budgeting.) Prereq: RES 100 or RES 210 or concurrent enrollment or real estate experience or permission. (30 DOL clock hours)</td>
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<tr>
<td>RES 141</td>
<td>3</td>
<td>Land Use Principles &amp; Practices</td>
<td>Introduces federal and state laws and regulations governing land use and environmental issues. Includes in-depth study of local (King County) regulations. Provides practical land use knowledge including the permit process. (30 DOL clock hours)</td>
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<tr>
<td>RES 142</td>
<td>3</td>
<td>Inspecting Real Estate</td>
<td>Find deficiencies in residential and commercial buildings including site drainage, weatherproofing, structure, heating, plumbing and electrical systems. Emphasizes inspection techniques and handling the identified problems. (30 DOL clock hours)</td>
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<tr>
<td>RES 143</td>
<td>3</td>
<td>Intro to Home Inspection Prof</td>
<td>Covers home inspection basics: WA laws, rules &amp; codes; business practices and reports; exterior foundation, roofing, site and structural components; interior plumbing, electrical, HVAC systems. Prepare for WA and National Home Inspection Licensing exams. With RES 142 &amp; 151 fulfills class and field prerequisites for WA Home Inspector License. Prereq: RES 142 or concurrently. (90 DOL clock hours)</td>
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<tr>
<td>RES 144</td>
<td>4</td>
<td>Inspecting Structural Framing</td>
<td>Learn to inspect foundations, wall, floor, ceiling and roof framing, public and private water systems, water heaters, drain piping, fixtures and faucets. Meets Domain 2. Structural Components: Tasks 1.1-1.4 and Domain 4. Plumbing: Tasks 4.1-4.5 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours)</td>
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<tr>
<td>RES 145</td>
<td>4</td>
<td>Inspecting Exteriors &amp; Roofing</td>
<td>Gain practical knowledge in the proper inspection of the entire exterior including roofs, skylights, siding, porches, decks, balconies, eaves, soffits, fascia, walkways, driveways, vegetation, grading, surface drainage, retaining walls, garages, carports and various types of roofs and flashings. Meets Domain 2. Exteriors: Tasks 2.1-2.5 and Domain 3. Roofing: Tasks 3.1-3.3 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours)</td>
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<tr>
<td>RES 146</td>
<td>2</td>
<td>Inspecting Heating Systems I</td>
<td>Gain hands-on skills for inspecting heating systems and identifying the energy source, type, material, condition, safety concerns and other issues related to gas and oil-fired forced-air furnaces and hot water heating plants as well as their distribution systems. Meets Domain 5. Heating: Tasks 5.1-5.3 of ASHI Home Inspector Training. Prereq: RES 143 or concurrent enrollment or permission. (20 DOL clock hours)</td>
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<tr>
<td>RES 147</td>
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<td>Inspecting Heating Systems ii</td>
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<td>RES 148</td>
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<td>Inspecting Electrical Systems</td>
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<td>RES 149</td>
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<td>Inspecting Heat Pumps AC</td>
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<td>RES 151</td>
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<td>Home Inspection Field Training</td>
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<td>Ethics for Loan Origination</td>
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<td>RES 164</td>
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<td>Real Estate Finance Residential</td>
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<td>RES 165</td>
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<td>Real Estate Loan Origination</td>
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<td>RES 166</td>
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<td>RES 168</td>
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<td>Loan Origination Auto</td>
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<td>RES 170</td>
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<td>Real Estate Law</td>
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<td>RES 175</td>
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<td>Introduction to Title</td>
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<td>RES 176</td>
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<td>Using Tax-Deferred Exchanges</td>
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<td>RES 177</td>
<td>1.5</td>
<td>Real Estate Taxes</td>
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<td>Buyers Agency</td>
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<tr>
<td>RES 179</td>
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<td>Basic Appraisal Principles</td>
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<td>RES 180</td>
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<td>Standards Professional Practice/Appraisal</td>
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<tr>
<td>RES 181</td>
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<td>Basic Appraisal Procedures</td>
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Course Descriptions

**RES 147 Inspecting Heating Systems ii**
Learn to inspect masonry and metal chimneys and exhaust vents; wood-burning furnaces and boilers; wood stoves; fireplaces; steam heating systems; electrical heating systems; wall and floor furnaces; room heaters and gas appliances to identify type, material, condition and safety concerns. Meets Domain 5. Heating, Tasks 5.1, 5.2, 5.3 and Domain 10. Fireplaces and Solid Fuel Burning Appliances, Tasks 10.1 & 10.2 of the ASHI Home Inspector Training. Prereq: RES 146 or concurrent enrollment or permission.

**RES 148 Inspecting Electrical Systems**
Learn to inspect electrical systems. Study service boxes and their components, grounding and bonding, distribution panels, branch circuit wiring, outlets, switches, and junction boxes. Prereq: RES 143 or concurrent enrollment or permission. (30 DOL clock hours)

**RES 149 Inspecting Heat Pumps AC**
Learn to inspect various types of heat pumps and air conditioning. Study inspection procedures for interiors: insulation, walls, floors, ceilings, crawl space, attics, exhaust fans and windows. Identify foundation defects, basement leakage and methods of correction. Prereq: RES 143 or concurrent enrollment or permission. (40 DOL clock hours)

**RES 150 Residential Sales & Lease**
Covers Washington real estate broker and agent practices, emphasizing agency law, contracts, torts, and Multiple Listing forms. Prereqs: RES 100, 110, 170 or 210 or concurrent enrollment, or 6 months experience in real estate. (15 DOL clock hours)

**RES 151 Home Inspection Field Training**
Field training in home inspection of insulation, ventilation, hazardous materials, plumbing, electrical, HVAC systems, communication and report-writing. Prepare for WA and National Home Inspection Licensing exams. With RES 142 & 143, fulfills class and field prerequisites for WA Home Inspector License. Recommend RES 142 and/or 143 or concurrently. (40 DOL clock hours)

**RES 160 Ethics for Loan Origination**
Covers ethical mortgage loan origination practices, RCW (statutes) and WAC (regulations) regarding prohibited practices, disclosure requirements, and advertising. Includes identification and prevention of loan fraud and predatory lending. Covers Mortgage Broker Practices Act (MBPA) and Consumer Loan Act (CLA). (10 DOL clock hours)

**RES 164 Real Estate Finance Residential**
Explore various financing programs for residential real estate. Learn to prequalify borrowers and generate closing cost worksheets. Gain knowledge about credit reports and credit scoring. Discover how underwriters determine who gets mortgages. Recommend RES 100 and/or RES 125 or concurrent. (50 DOL clock hours)

**RES 165 Real Estate Loan Origination**
Examines the loan process, typical mortgage loan products and loan merchandising skills. Includes relevant laws and regulations and business development techniques. Coreq: RES 100 recommended. (30 DOL clock hours)

**RES 166 Real Estate Loan Process**
Learn to process residential Conventional/Conforming, Subprime, Jumbo, FHA and VA mortgages from application to closing. Use CALYX Loan Processing Software including Loan Applications, Good Faith Estimates, Truth-In-Lending and other required documents. Analyze credit reports, verifications of employment and assets. Prereq: Recommend RES 100 or taken concurrently. (40 DOL clock hours)

**RES 168 Loan Origination Auto**
Hands-on training for originating residential loan applications using Interlinc’s MortgageWare software. Prereq: RES 165 or RES 166 or concurrent enrollment or real estate experience. (15 DOL clock hours)

**RES 170 Real Estate Law**
Review the principles of real estate law, including acquisition, encumbrance, transfer, rights and obligations of parties, and WA State regulations. Prereq: RES 100 or 110 or 210, or concurrent or real estate experience or permission. (30 DOL clock hours)

**RES 175 Introduction to Title**
For those in real estate sales, finance, escrow, or title insurance fields. Covers fundamentals of title insurance, various types of liens, methods of clearing title, and other items of record and off-record that affect real property. (30 DOL clock hours)

**RES 176 Using Tax-Deferred Exchanges**
Study Section 1031: Exchanges of the Internal Revenue Code pertaining to business and investment real property. Includes tax-deferred exchanges and advanced tax planning strategies, processes and pitfalls. (15 DOL clock hours)

**RES 177 Real Estate Taxes**
Covers U.S. income taxes pertaining to real estate. Learn what constantly changing federal income tax laws affect residential, business, and investment properties. (15 DOL clock hours)

**RES 178 Buyers Agency**
Presents torts, contract, and agency laws pertaining to real estate Buyer’s Agents while emphasizing Washington law. Provides and discusses useful forms for a Buyer’s Agent. Prereq: RES 100 or taken concurrently or real estate experience. (15 DOL clock hours)

**RES 180 Basic Appraisal Principles**
Revised to meet the January 1, 2008 Real Property Appraiser Qualification Criteria. Intro to the appraisal process. Investigate influences on the types of real estate values. Overview of real estate markets and analysis. Recommend RES 100 concurrently. (30 DOL clock hours)

**RES 181 Standards Professional Practice/Appraisal**
Focuses on requirements for ethical behavior and competent performance set forth in the Uniform Standards of Professional Appraisal Practice and Washington State Regulations. Prereq: RES 180 or appraisal experience. (15 DOL clock hours)

**RES 183 Basic Appraisal Procedures**
Revised to meet the January 1, 2008 Real Property Appraiser Qualification Criteria. Presents methodologies used in valuation procedures. Understand property descriptions for appraisal reporting and apply these to residential and commercial appraisal applications. Prereq: RES 180 or appraisal experience or permission. (30 DOL clock hours)
### Course Descriptions

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<tr>
<th>Course Code</th>
<th>Units</th>
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<td>RES 184</td>
<td>(1.5)</td>
<td>Residential Market Analysis</td>
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<td>RES 185</td>
<td>(1.5)</td>
<td>Residential Appraiser Site</td>
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<td>RES 186</td>
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<td>Residential Sales Comparison</td>
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<td>RES 187</td>
<td>(1.5)</td>
<td>Residential Report Writing</td>
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<td>RES 188</td>
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<td>Statistics Modeling Finance</td>
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<td>RES 189</td>
<td>(1.5)</td>
<td>Advanced Residential Application</td>
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<td>RES 190</td>
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<td>Real Estate Escrow I</td>
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<td>RES 191</td>
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<td>Advanced Escrow Closing Systems</td>
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<td>RES 195</td>
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<td>Real Estate Escrow II</td>
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<td>RES 200</td>
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<td>Seminar In Real Estate Issues</td>
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<td>RES 201</td>
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<td>Principles of Real Estate Management</td>
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<td>RES 202</td>
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<td>Multi-Family Property Management</td>
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<td>RES 204</td>
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<td>Community Association Management</td>
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<td>RES 209</td>
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<td>Residential Property Investment</td>
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<td>RES 210</td>
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<td>Community Association Management</td>
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<td>RES 215</td>
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<td>Real Estate Business BKR Sales/App</td>
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<tr>
<td>RES 217</td>
<td>(3)</td>
<td>Real Estate Development and Sustainability</td>
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</table>

**Course Descriptions**

**RES 184 Residential Market Analysis**
Research residential markets by using supply and demand analysis. Learn and apply highest and best use analysis through case studies. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 180 or real estate or appraisal experience or permission. (30 DOL clock hours)

**RES 185 Residential Appraiser Site**
Learn advanced methods for site valuation and the cost approach in determining value of real property. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 180 or real estate or appraisal experience or permission. (15 DOL clock hours)

**RES 186 Residential Sales Comparison**
Learn to estimate value using cost and sales comparison approaches. Learn to compute Capitalization Rates, Gross Rent Multipliers, finance and cash equivalency on the HP12C calculator. Bring your HP12C or borrow one from RES program if available. Meets Jan. 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 125 and RES 183 or real estate or appraisal experience or permission. (30 DOL clock hours)

**RES 187 Residential Report Writing**
Gain writing and reasoning skills to complete the standard residential appraisal report. Overcome common report writing problems and learn options. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 186 or concurrent enrollment or appraisal experience or permission. (15 DOL clock hours)

**RES 188 Statistics Modeling Finance**
Study elementary statistical concepts and their application to real estate issues. Cover measures of central tendency, linear and non-linear trend analysis, linear regressions, complex multivariate automated valuation models (AVMs) and their application to mass appraisal and real estate finance. Uses HP12C calculator and Microsoft XL. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 101, 125, & 186 or concurrent enrollment or appraisal experience or permission. (15 DOL clock hours)

**RES 189 Advanced Residential Application**
Discover the property and design elements, market conditions and other factors that create complexities in residential real estate and how these impact valuation. Measure supply and demand factors and their impact. Case studies include market analysis and feasibility determinations. Meets January 1, 2008 Real Property Appraiser Qualification Criteria. Prereq: RES 187 and RES 188 or concurrent enrollment or appraisal experience. (15 DOL clock hours)

**RES 190 Real Estate Escrow I**
Intro to escrow principles and procedures covering laws, real estate and escrow documents, escrow closings, and title exceptions. (30 DOL clock hours)

**RES 191 Advanced Escrow Closing Systems**
Covers computerized escrow closing: information entry, trust accounting, producing documents, letters and closing statements through the use of Advanced Escrow Closing software. Prereq: RES 190 or concurrent enrollment. (20 DOL clock hours)

**RES 195 Real Estate Escrow II**
Includes extensive work in real estate contracts, assumptions, mortgages (FHA, VA and conventional) and wraparounds. Prereq: RES 190 or 6 months recent experience in escrow. (30 DOL clock hours)

**RES 200 Seminar In Real Estate Issues**
Covers the latest information and laws on appraisal, sales, land development, title, finance, and current issues. Assists with career development through discussions with professionals and work-related research projects. (50 DOL clock hours)

**RES 201 Principles of Real Estate Management**
An Institute of Real Estate Management course (IREM 201). Covers basic principles of property management including property analysis, management and planning, marketing, staffing, and maintenance of real estate. IREM provides a certificate toward a CPM designation. (30 clock hours)

**RES 202 Multi-Family Property Management**
Learn important functions in residential property management, property analysis, rental policies, rental surveys, lease provisions, inspection, building codes, tenant relations, operating policies and financial result analysis. (30 DOL clock hours)

**RES 203 Property Management – Commercial**
Covers commercial property management, including personnel policies, marketing, tenant management, property maintenance, security, collection, lease provisions, and record-keeping systems. (30 DOL clock hours)

**RES 204 Community Association Management**
Learn how successful associations are established, operated, and managed. Explore the fundamental principles and procedures of various types of community associations, such as Home Owners Associations, Resort Association, and more. Applicable for property managers, association Boards, developers, condo sales agents, loan officers, escrow officers, and paralegals. (30 DOL clock hours)

**RES 210 Residential Property Investment**
Learn to invest in different types of residential properties, including the principles and techniques used to determine the advantages and disadvantages of buying, selling and renting investments. Study financing options for various residential investments. Recommend RES 100 or concurrent. (30 DOL clock hours)

**RES 215 Real Estate Business BKR Sales/App**
Explore the specialized field of buying and selling business opportunities. Cover all aspects from prospecting for buyers and sellers to closing the transaction and estimating value. (30 DOL clock hours)

**RES 217 Real Estate Development and Sustainability**
Explore the fundamental principles and procedures in developing residential, commercial and industrial real estate, including all development stages of a project. Oriented to developers, but appropriate to investors. Focus on how sustainable development is applied. (30 DOL clock hours)
RES 220 (3) N
Real Estate Economics
Use economic principles to analyze the impact that national, regional, community, and neighborhood trends have on real estate values. Study trends in the money market, community growth patterns, land use controls, and taxation in the Puget Sound region. Prereq: RES 100 or 110 or 180 or 210 or concurrently, or real estate experience or real estate license or permission. (30 DOL clock hours)

RES 221 (3) N
Corporate Real Estate
Learn acquisition, disposal and management of properties in the corporate environment. Focus on best practices for maneuvering in the corporate real estate setting and understand asset management vs. property management. Use situational analysis and study typical legal documents. (30 DOL clock hours)

RES 225 (1.5) N
Current Trends: Real Estate Market Ana
Presents current economic, political and real estate information affecting the Puget Sound Region. Provides practical methodology to distill information into useful market report. Learn techniques to understand, modify and create forecasts and scenarios. Prereq RES 220 or concurrent enrollment. (15 DOL clock hours)

RES 230 (5) N
Business Practices of Broker Management
Covers real estate brokerages operations: general business concepts, management practices and broker responsibilities. Fulfills WA state requirements of 30 hrs Brokerage Management and 30 hrs Business Management. Prep for Managing Broker exam. Prereq: RES 100 or licensed RE Broker for 12 months or permission. (60 DOL clock hours)

RES 235 (3) N
Sales and Marketing
Increase business and/or market share by incorporating sales and marketing techniques, including an action plan. Learn to differentiate yourself/business from your competition and generate effective marketing media strategy. Recommend RES 100 or RES 110 or RES 180 or concurrent enrollment. (30 DOL clock hours)

RES 241 (3) N
Appraising Small Residences
Provides a foundation in the principles, concepts and methods applicable to appraising 2-4 unit small residential income properties. (Prereq: RES 180 and RES 125 or concurrent enrollment. (30 DOL clock hours)

RES 242 (3) N
Advanced Residential Appraisal
Study and apply advance principles, concepts, methodologies, and computer technology applicable to appraising residential properties. Use popular appraisal software to aid in the required appraisal calculations. (Fulfills 30 DOL continuing education clock hours.) Prereq: RES 240, or taken concurrently, or appraisal experience.

RES 260 (2) N
Real Estate Finance
Review different sources and methodologies for financing commercial and investment properties including alternative financing and the secondary market. Prereq: RES 100 or 110 or concurrent or real estate experience or permission. (15 DOL clock hours)

RES 266 (3) N
Real Estate Loan Underwriting
Intro to underwriting residential loans. Includes underwriting documents, analyzing appraisals, applications, verifications and formulas for buyer qualification. Prereq: RES 165 or 166, or concurrent enrollment or real estate experience. (30 DOL clock hours)

RES 280 (3) N
Commercial Real Estate: Markets & Income
Learn research and analysis techniques in the appraise of income property including property characteristics, sources of data, analysis of supply and demand and forecast of performance. Uses case studies in the multi-family, retail and lodging markets. Prereq: RES 125 and RES 183 (concurrent enrollment) or real estate experience. (30 DOL clock hours)

RES 281 (1.5) N
National USPAP Course
Focus on ethical behavior and competent performance set forth in the USPAP and Washington Regulations. Prereq: RES 183 or 6 months appraisal experience or permission. (15 DOL clock hours)

RES 282 (3) N
Real Estate Applications
Increase ability to apply appraisal methods, techniques and procedures using case studies. Prereq: RES 125 and RES 281, or appraisal experience or approval; HP12C or similar financial calculator. (30 DOL clock hours)

RES 290 (3) N
Commercial Sales Leasing
Study the opportunities and responsibilities of representing commercial property owners, buyers, tenants and landlords. Learn to list, sell and lease various commercial properties. Explore basic evaluation and marketing tools. Learn to complete market surveys, commercial listing, sales and leasing agreements. Prereq: RES 100 or 110, or Washington Real Estate License or permission. Coreq: RES 125 recommended. (30 DOL clock hours and initial license renewal under RCW 18.85.095(2)(a))

RES 295 (2) N
Commercial Real Estate Investment Analysis
Learn commercial real estate investment analysis, including fundamentals of commercial leases, pro forma analysis, use and selection of discount and capitalization rates, tax laws and applications of decision-making tools. Bring programmable financial calculator to class. Prereq: RES 110 and 125, and RES 290 or concurrently or real estate experience or permission. (20 DOL clock hours)

RES 298 – (1-6) N
Special Projects – Real Estate
To provide advanced students with research opportunities or work experience in real estate applications parallel with those encountered in an actual job environment, and to allow students to pursue independent study on special projects. Credits vary depending on amount of work. Prereq: Advanced level standing and permission.

REL 150 (5) S
Intro to Western Religions
A social-historical survey of religions that have developed west of the Indus River. Promotes a better understanding of those traditions and their cultural influences on history.

REL 151 (5) S
Intro to Eastern Religions
A social-historical survey of religions that have developed east of the Indus River. Promotes a better understanding of those traditions and their cultural influences on history.

Respiratory Care Bachelor of Applied Science in Allied Health – Respiratory Care Track
Students must be accepted into the program in order to take these courses.
### RCP 101 (1) C
**Respiratory Care Orientation**
Intro to concepts and principles of the Respiratory Care program. Emphasizes preparation for school, college resources, financial assistance, classroom, study and communication skills, strategies for taking exams, time management, stress and anger management.

### RCP 110 (2) C
**Intro to Respiratory Care**
Explores the respiratory care profession. Focuses on historical development as well as current overview of the respiratory care practitioner role. Emphasis on professionalism, ethical thought, death and dying, and working in a multicultural environment.

### RCP 112 (2) C
**Applied Microbiology**
Focus on microbiology in respiratory disease, including the history of microbiology, cell structure and relationships between humans and microbes. Covers microorganisms, differentiation of microorganisms, factors in disease and resistance, infection control and therapeutics for infectious processes in respiratory care.

### RCP 114 (4) C
**Respiratory Care Fundamentals I**
Intro to procedures used to assess and treat common respiratory diseases. Emphasis on skills needed to safely and effectively work in the hospital environment and to assess patients with cardiopulmonary disease. Covers hospital safety, gas physics, medical gas and aerosol therapy, bronchial hygiene and hyperinflation therapies.

### RCP 115 (1) C
**Pharmacology I**
Intro to the principals and practices of Respiratory Care Pharmacology with emphasis on the safe delivery of medications. Explores the basic concepts of pharmacology, aerosol delivery, dosage calculations and bronchodilator therapies for treatment.

### RCP 117 (4) C
**Cardiopulmonary Anatomy & Physiology**
Provides an in-depth investigation into the structure and function of the cardiopulmonary and related body systems, emphasizing the interdependence of the body systems, including pulmonary, cardiac, vascular, renal systems. Covers the effects of aging, exercise and extreme environments on the cardiopulmonary system.

### RCP 120 (4) C
**Clinical Practice I**
Respiratory care practicum. Continues the development of skills in real clinical situations at partner facilities around the Puget Sound area. Emphasis on hospital safety, patient assessment, and the application of therapeutic procedures.

### RCP 123 (1) C
**Pathophysiology I**
Study of the concepts and principles by which disease alters the normal function of the cardiopulmonary system. Emphasizes recognizing obstructive diseases, recommending and applying therapeutic measures and analyzing clinical data and responses to treatment.

### RCP 124 (5) C
**Respiratory Care Fundamentals II**
Continuation of RCP 114. Emphasis on skills to safely and effectively care for patients with artificial airways. Covers artificial airways, bedside diagnostic testing, arterial blood gas analysis and non-invasive ventilation.

### RCP 125 (1) C
**Pharmacology II**
Continuation of RCP 115. Emphasis on medications used to treat primary respiratory disorders such as asthma. Covers steroid and non-steroidal asthma controllers, xanthine medications, mucus controlling drugs and aerosolized anti-infective medications.

### RCP 130 (5) C
**Clinical Practice II**
Respiratory care practicum. Continues the development of skills in real clinical situations at partner facilities around the Puget Sound area. Emphasis on more advanced techniques and diagnostics in acute care.

### RCP 132 (3) C
**Cardiopulmonary Pharmacology**
Basic concepts and knowledge necessary for safe administration of drugs used in the practice of respiratory care. Emphasis is on pharmacy as a science, and prescriptions commonly used in critical care settings are included.

### RCP 133 (1) C
**Pathophysiology II**
Continuation of RCP 123. Study of concepts and principles by which disease alters the normal function of the cardiopulmonary system. Emphasis on recognizing respiratory failure and infectious diseases, recommending and applying therapeutic measures and analyzing clinical data and responses to treatment.

### RCP 134 (5) C
**Respiratory Care Fundamentals III**
Continuation of RCP 124. Emphasis on mechanical ventilation of the critically ill adult. Covers the physiology, application, monitoring and discontinuation of mechanical ventilation, as well as alternative strategies for mechanical ventilation.

### RCP 135 (1) C
**Pharmacology III**
Continuation of RCP 125. Emphasizes pharmacologic agents used to facilitate mechanical ventilation in the critical care setting. Covers skeletal muscle relaxants, sedatives, analgesics, diuretics and antibiotics.

### RCP 137 (4) C
**Cardiopulmonary Anatomy & Physiology**
Provides an in-depth investigation into the structure and function of the cardiopulmonary and related body systems, emphasizing the interdependence of the body systems, including pulmonary, cardiac, vascular, renal systems. Covers the effects of aging, exercise and extreme environments on the cardiopulmonary system.

### RCP 139 (2) C
**Skills Review III**
Required for students returning to the program and requesting advanced standing. High motivation level required. Combines independent study and lab demonstrations. Course not required for program degree.

### RCP 196 (5) C
**Work Experience: Respiratory Care**
Earn work experience credit in the respiratory care field. Prereq: Permission.

### RCP 197 (1-5) C
**Work Experience: Respiratory Care**
Allows students to earn work experience credit in the respiratory care field. Prereq: Permission.

### RCP 198 (1-5) C
**Work Experience: Respiratory Care**
Allows students to earn work experience credit in the respiratory care field. Prereq: Permission.

### RCP 199 (1-5) C
**Work Experience: Respiratory Care**
Allows students to earn work experience credit in the respiratory care field. Prereq: Permission.
RCP 230 (4)  C  
Transition: Adv Stn in Respiratory Care  
Preparation for fourth-quarter of respiratory care program. Combination of self-study, lecture and lab demonstration. High motivation level required. Prereqs: ZOO 113, ZOO 114, BIO 280, CHE 101, ENG 101 and PSY 110. Must be graduate of respiratory care tech program, transfer student or O.J.T. student.

RCP 240 (4)  C  
Clinical Practice III  
Respiratory care practicum. Continues the development of skills with emphasis on respiratory care in the intensive care setting. Apply skills in real clinical situations at partner facilities around Puget Sound area.

RCP 241 (2)  C  
Respiratory Care for Critically III  

RCP 243 (1)  C  
Pathophysiology III  
Continuation of RCP 133. Study of concepts and principles by which disease alters the normal function of the cardiopulmonary system with emphasis on the pathophysiology of critical illness.

RCP 244 (3)  C  
Respiratory Care Fundamentals IV  
Continuation of RCP 134. Emphasis on intensive care monitoring techniques. Covers electrocardiogram interpretation, hemodynamic monitoring, and advanced cardiac life support.

RCP 245 (1)  C  
Pharmacology IV  
Continuation of RCP 135. Emphasis on drugs used to treat the cardiac system as well as medications used in pediatric/neonatal respiratory care. Covers antihypertensive, medications to treat shock, arrhythmics, surfactant, nitric oxide and other medications used in critical care.

RCP 250 (6)  C  
Clinical Practice IV  
Respiratory care practicum. Continues the development of skills in the intensive care and emergency settings. Apply skills in real clinical situations at partner facilities around the Puget Sound area.

RCP 251 (2)  C  
Respiratory Care  
For Infants & An in-depth study of neonatal and pediatric respiratory care. Focuses on diseases specific to caring for our smallest patients. Covers fetal growth and development, labor and delivery, resuscitation, disease processes, assessment and therapy.

RCP 253 (1)  C  
Pathophysiology IV  
A continuation of RCP 243. Study of concepts and principles by which disease alters the normal function of the cardiopulmonary system with emphasis on the pathophysiology of cardiovascular, neuromuscular, fibrotic diseases and sleep-disordered breathing.

RCP 254 (5)  C  
Respiratory Care Fundamentals V  
Continuation of RCP 244. Emphasis on advanced concepts and skills needed to care for neonatal and pediatric patients. Covers techniques and equipment to manage neonatal and pediatric patients in the acute care environment, including oxygen therapy, bronchial hygiene, airway care, Continuous Positive Airway Pressure and mechanical ventilation.

RCP 258 (2)  C  
Comp. Review Respiratory Care  

RCP 259 (1)  C  
Independent Study in Respiratory Care  
Independent study in selected respiratory care topics under the supervision of the program director. Topics coincide with the quarter’s curriculum.

RCP 260 (6)  C  
Clinical Practice V  
Respiratory care practicum. Continues the development of skills with pediatric or adult critical care patients. Apply skills in real clinical situations at partner facilities around the Puget Sound area.

RCP 262 (1)  C  
Enter Level Exam Review  
Survey of material on the National Board for Respiratory Care’s (NBRC) Certified Respiratory Therapist (CRT) exam. Emphasis on test taking and exam content.

RCP 264 (3)  C  
Respiratory Care Fundamentals VI  
Continuation of RCP 254 exploring the equipment and techniques of respiratory care. Emphasis on Cardiopulmonary diagnostic studies. Covers pulmonary function testing, exercise physiology and testing, bronchoscopy and polysomnography.

RCP 266 (2)  C  
Pulmonary Rehab & Home Care  
Introduction to the concepts, knowledge, and procedures specific to the respiratory care of adults and children with chronic cardiopulmonary disorders. Emphasis on patient education. Prereq: Completion of RCP 110 - RCP 254 and concurrent enrollment in RCP 260, RCP 261, RCP 264, RCP 298.

RCP 267 (2)  C  
Advanced Mechanical Ventilation  
In-depth exploration of the application of mechanical ventilation across the age spectrum. Emphasis on the clinical application of mechanical ventilators and advanced modes of mechanical ventilation.

RCP 270 (6)  C  
Clinical Practice VI  
Respiratory care practicum. Continues the development of skills with pediatric or adult critical care patients. Apply skills in real clinical situations at partner facilities around the Puget Sound area.

RCP 272 (4)  C  
Comp. Review Respiratory Care  
Survey of material on the National Board for Respiratory Care Advanced Practitioner exam, NBRC Written Registered Respiratory Therapist exam (WRRT).

RCP 274 (2)  C  
Pulmonary Rehab & Homecare  

RCP 276 (3)  C  
Advanced Patient Assessment  
Develop further critical thinking skills for assessing patients through history, physical examination, lab data, chest x-rays, pulmonary function tests and EKG data. Use clinical reasoning skills to develop and implement plans of care for the cardiopulmonary patients presented and discuss equipment, modifying treatment and evaluating patient progress. Practice with the National Board for Respiratory Care’s (NBRC) Clinical Simulation Exam.

RCP 299 (1-3)  C  
Independent Study in Respiratory Care  
Independent study in selected respiratory care topics under the supervision of the program director. Topics coincide with the quarter’s curriculum.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RCP 320</strong></td>
<td>(4) C</td>
<td>Clinical I</td>
<td>Covers direct application of respiratory care skills in the hospital setting. Focuses on skills for respiratory care practice in acute care. Students treat patients using basic respiratory care techniques and perform physical assessments, chart review, hand washing, and bronchial hygiene techniques. Builds on respiratory care knowledge and skills established in the classroom, lab and clinical setting. Prereq: Successful completion of courses from 1st quarter with a minimum GPA of 2.0.</td>
</tr>
<tr>
<td><strong>RCP 323</strong></td>
<td>(2) C</td>
<td>Pathophysiology for Respiratory Care</td>
<td>Encompasses a study of the concepts and principles by which disease alters the normal function of the cardiopulmonary system. Emphasis will be on development of the respiratory care plan in the context of Respiratory Failure, Asthma, Chronic Obstructive Pulmonary Disease, Cystic Fibrosis, Postoperative Atelectasis, Intermittent Lung Disease, Neuromuscular disease, Bacterial Pneumonia, Tuberculosis, and Sleep Disordered Breathing. Prereq: Completion of 1st quarter Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
<tr>
<td><strong>RCP 328</strong></td>
<td>(4) C</td>
<td>Advanced Therapeutic Approaches</td>
<td>The second course in the therapeutic approaches series, this course builds upon concepts, knowledge, and skills acquired in AHE 218. Emphasis is on the knowledge and skills necessary to safely and effectively provide artificial airway care, Arterial Blood Gas (ABG) drawing and analysis, bedside monitoring techniques and non-invasive positive pressure ventilation. Prereq: Completion of 1st quarter Respiratory Care program courses with minimum GPA of 2.0.</td>
</tr>
<tr>
<td><strong>RCP 329</strong></td>
<td>(1) C</td>
<td>Advanced Therapeutic Approaches Equipment and Tech</td>
<td>Covers the application of Respiratory Care therapeutics learned in RCP 328. Learners will apply theory acquired in RCP 338 using models, simulation and laboratory partners for practice. Focuses on safe and effective application of advance mechanical ventilation across the age spectrum. Prereq: Successful completion of 2nd quarter Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
<tr>
<td><strong>RCP 330</strong></td>
<td>(6) C</td>
<td>Acute Care Clinical II</td>
<td>Acute Care Clinical II further familiarizes students with hospital-based respiratory care. Students practice direct patient care, treat patients using basic respiratory care techniques, and perform physical assessments. Chart review, hand washing, and bronchial hygiene techniques are emphasized. Students use techniques learned in lab and on-site and build on the foundation of respiratory care knowledge and skills established in the classroom setting.</td>
</tr>
<tr>
<td><strong>RCP 338</strong></td>
<td>(4) C</td>
<td>Fundamentals of Mechanical Ventilation</td>
<td>The third course in the Respiratory Care Fundamentals series, this course builds upon concepts, knowledge, and skills acquired in RCP 328. Emphasis will be placed on the knowledge and skills necessary to safely prepare, institute, monitor and modify mechanical ventilation in the care of the critically ill adult patient. Successful completion of 2nd quarter Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
<tr>
<td><strong>RCP 339</strong></td>
<td>(1) C</td>
<td>Mechanical Ventilation Equipment and Technology</td>
<td>Covers the application of Respiratory Care therapeutics learned in RCP 338. Learners will apply theory acquired in RCP 338 using models, simulation and laboratory partners for practice. Focuses on safe and effective application of basic, adult mechanical ventilation. Prereq: Successful completion of 2nd quarter Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
<tr>
<td><strong>RCP 340</strong></td>
<td>(4) C</td>
<td>Adult Critical Care Clinical I</td>
<td>RCP 340 is the third course in the Respiratory Care clinical series. Emphasis will be placed on integrating respiratory theory knowledge with skills performance by providing the student therapist with the opportunity to practice direct patient care. The learner will be assigned to the Critical Care Unit and will perform the duties associated with the management of the critically ill patient on mechanical ventilation.</td>
</tr>
<tr>
<td><strong>RCP 341</strong></td>
<td>(2) C</td>
<td>Neo/Peds Pathology</td>
<td>An in-depth study of neonatal and pediatric respiratory care. Focuses on diseases specific to caring for our smallest patients. Covers fetal growth and development, labor and delivery, resuscitation, disease processes, assessment and therapy. Prereq: Successful completion of the previous quarter's Respiratory Care Program courses with a minimum GPA of 2.0.</td>
</tr>
<tr>
<td><strong>RCP 345</strong></td>
<td>(2) C</td>
<td>Advanced Pharmacology</td>
<td>Continues the study of medications in the critical care setting and introduces the learner to medications used in the pediatric/perinatal disciplines. Emphasis is on drugs used to treat emergent cardiac abnormalities, common critical care medications, pediatric/perinatal medications and resuscitation products. Prereq: Completion of previous quarter Respiratory Care classes with 2.0 or above.</td>
</tr>
<tr>
<td><strong>RCP 347</strong></td>
<td>(2) C</td>
<td>Cardiology for Respiratory Care</td>
<td>Emphasis will be placed on the integration of hemodynamic measurements in the care of the critically ill patient. Various clinical applications and critical care monitoring will be covered in depth. Further emphasis will be placed on the principles of Advanced Cardiac Life Support (ACLS) and the interpretation of electrocardiogram (ECG) data.</td>
</tr>
<tr>
<td><strong>RCP 348</strong></td>
<td>(2) C</td>
<td>Advanced Mechanical Ventilation</td>
<td>In-depth exploration of the application of mechanical ventilation across the age spectrum. Emphasis on the clinical application of mechanical ventilators and advanced modes of mechanical ventilation. Prereq: Successful completion of 2nd quarter B.A.S. Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
<tr>
<td><strong>RCP 349</strong></td>
<td>(1) C</td>
<td>Advanced Ventilation Equipment &amp; Technology</td>
<td>Covers the application of Respiratory Care therapeutics learned in RCP 348. Learners will apply theory acquired in RCP 348 using models, simulation and laboratory partners for practice. Focuses on safe and effective application of advance mechanical ventilation across the age spectrum. Prereq: Successful completion of 2nd quarter B.A.S. Respiratory Care Program courses with a 2.0 or higher GPA.</td>
</tr>
</tbody>
</table>
RCP 458 (4) C
Neo/Peds Respiratory Care
Emphasis on advanced concepts and skills needed to care for neonatal and pediatric patients. Covers techniques and equipment to manage neonatal and pediatric patients in the acute care environment, including oxygen therapy, bronchial hygiene, airway care, Continuous Positive Airway Pressure and mechanical ventilation. Prereq: Successful completion of prior quarter’s coursework with a GPA of 2.0 or greater.

RCP 459 (1) C
Neo/Peds E&T
Covers the application of Respiratory Care therapeutics in the neonatal/pediatric population learned in RCP 458. In this class learners will apply theory acquired in RCP 458 using models, simulation and laboratory partners for practice. Focuses on safe and effective application of mechanical ventilation and respiratory care therapeutics in the neonatal/pediatric age population. Prereq: Successful completion of prior quarter’s courses with a 2.0 or better.

RCP 460 (6) C
Neo/Peds Clinical Practice V
RCP 460 is a continuation of prior clinical experience and is designed to build on the foundation of respiratory care knowledge and skills established in the previous five quarters of the program. This course is designed to provide the student with the knowledge, skills and techniques necessary to safely and effectively treat newborn infants and children suffering from various cardiopulmonary disorders through hands-on experience with the neonatal and/or pediatric patient.

RCP 463 (2) C
Advanced Pathology Respiratory Care
A study of the concepts and principles by which disease alters the normal function of the cardiopulmonary system in critically ill patients. Covers cardiopulmonary assessment and development of the respiratory care plan in the context of: Shock, Pulmonary Thromboembolic disease, Heart Failure, Smoke Inhalation and Burns, Trauma, Near Drowning, Acute Respiratory Distress Syndrome, Chest Trauma, Pneumonia in the critically ill patient, and Lung Cancer.

RCP 464 (2) C
Pulmonary Rehab and Home Care
Pulmonary Rehabilitation and Home Care is designed to give the advanced practitioner the knowledge and skills to successfully integrate the technical aspects of Respiratory Care into challenging alternate care settings ethically and safely. Focuses on the concepts, knowledge, and procedures specific to the respiratory care of adults and children with chronic cardiopulmonary disorders, receiving care in the alternative care setting. Emphasis is placed on patient education and health promotion.

RCP 467 (2) C
Advanced Cardiopulmonary Physiology
Builds on the topics covered in AHE 217. Covers the interrelationship of cardiopulmonary systems and how the application of therapeutic procedures can alter those normal relationships. Topics include the immunology and fluid transport of the lung, hemodynamics and pulmonary circulation, and additional concepts of acid base physiology. Provides in-depth study of the cardiopulmonary system in the context of critically ill patients.

RCP 468 (3) C
Advanced Cardiopulmonary Diagnosis
Emphasis will be placed on the theory, application and interpretation of pulmonary function regimens, exercise testing, bronchoscopy, blood gas sampling and analysis, indirect calorimetry and polysomnography. Further emphasis will be placed on the equipment utilized for the aforementioned tests as well as their calibration and quality control.

RCP 469 (1) C
Diagnostic Equipment & Technology
Covers the application of cardiopulmonary diagnostics learned in RCP 468. In this class learners will apply theory acquired in RCP 468 using models, simulation and laboratory partners for practice. Focuses on safe and effective application of diagnostic equipment and procedures across the age spectrum. Covers diagnostic equipment, spirometry, diffusion studies and lung volume determination, cardiopulmonary exercise testing, metabolic studies, bronchoscopy and polysomnography.

RCP 470 (6) C
Adult Critical Care Clinical III
Culmination of all previous clinical experiences. Designed to build on the foundation of respiratory care knowledge and skills established in the previous six quarters of the program. Students will be assigned to the Critical Care Unit and will perform all of the required duties of a respiratory therapist in the critical care environment. Emphasis on gaining autonomy and independence in the care of the patient.

RCP 479 (5) C
Respiratory Care Capstone
A capstone course in the respiratory care program representing the culmination of student learning throughout the program. Students will take on a project using a faculty and/or community mentor to showcase the work they have done in the respiratory care program. The content varies based on student projects and can take on many forms. Projects will be developed in collaboration with faculty and community mentors and are aligned with student interest.

Retail Skills
SAL 112 (3) C
Basics of How to Sell
Role of salesmanship in a free market economy. Assignments and activities related to techniques implicit in developing a sales personality.

SAL 197 (1-15) C
Coop Work Experience: Sales
Supervised employment during the fifth quarter of the program. Four hours daily, five days per week. Five credits awarded for each quarter of supervised employment.

Science
SCI 090 (5) S
General Science Career-Link
Covers major concepts and ideas in science, exploring biology, physics, chemistry, geology, astronomy and ecology. Lab included. Satisfies science requirement of the high school completion program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI 100</td>
<td>5</td>
<td>C,N</td>
<td>Intro to Science</td>
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<tr>
<td></td>
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<td>Covers basic principles and current scientific thought in the major fields of science, including history, philosophy, and methodology. No credit for students who have completed major-level science courses. Non-lab course.</td>
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<tr>
<td>SCI 101</td>
<td>5</td>
<td>C,N</td>
<td>Intro to Physical Science</td>
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<td>Through selected topics in the physical sciences, learn the process of science: Question, Observe, Organize/Analyze and Report. At each stage ask: Which aspects of this step are culturally dependent and which are not? Hands-on explorations guided by inquiry-based material.</td>
</tr>
<tr>
<td>SCI 104</td>
<td>5</td>
<td>C,N</td>
<td>Physical Science</td>
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<tr>
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<td>Intro to the physical world through everyday applications of physical science principles. Examines fundamentals of physics and chemistry in light of the scientific method.</td>
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<tr>
<td>SCI 107</td>
<td>4</td>
<td>C,N</td>
<td>Applied Bioengineering</td>
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<td>Covers water-related issues in the developing world: availability, sanitation, food production and environmental degradation. Includes integrative resource management using local human and material resources combined with developing technologies that are safe, adaptable and affordable. Promotes scientific critical thinking and problem-solving.</td>
</tr>
<tr>
<td>SCI 110</td>
<td>5</td>
<td>C</td>
<td>Intro to Robotics</td>
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<td>Intro to design, construction and programming of autonomous mobile robots. Using complete robot kits (micro-controller, sensors, motors, building parts), work in teams to study design issues of mechanics, sensors, motors and control. Design and construct a robot that will accomplish a particular task.</td>
</tr>
<tr>
<td>SCI 111</td>
<td>1</td>
<td>C,N</td>
<td>Geology Field Day</td>
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<td>Covers the best of the region’s geology, including the Seattle Fault, ancient glaciers, fossil forests, landslides, Cascade Mountains and northeastern Oregon. Lab credit. May be taken as GEOL 111.</td>
</tr>
<tr>
<td>SCI 112</td>
<td>1</td>
<td>C,N</td>
<td>Northwest Fieldtrip – Seashore Life</td>
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<tr>
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<td>Explores seashore life in the Pacific Ocean and Puget Sound.</td>
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<tr>
<td>SCI 113</td>
<td>1</td>
<td>C,N</td>
<td>Marsh Ecology – Northwest Field</td>
</tr>
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<td>Explore local wetlands and the organisms that inhabit wetlands ecosystems with a focus on the local animals and plants. Field trips. Lab.</td>
</tr>
<tr>
<td>SCI 114</td>
<td>1</td>
<td>C,N</td>
<td>Northwest Fieldtrip – Astronomy</td>
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<tr>
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<td>Covers astronomy from a hands-on perspective in the field.</td>
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<tr>
<td>SCI 116</td>
<td>1</td>
<td>C,N</td>
<td>Edible Plants – Northwest Field</td>
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<td>Focuses on edible and medicinal plants of the Pacific Northwest. Lab credit.</td>
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<tr>
<td>SCI 117</td>
<td>1</td>
<td>C,N</td>
<td>Wildflowers – Northwest Field Trip</td>
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<td>Classification and ecology of lowland to alpine wildflowers of the Pacific Northwest. Lab credit.</td>
</tr>
<tr>
<td>SCI 118</td>
<td>1</td>
<td>C,N</td>
<td>Volcano Field Day</td>
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<td>Intro to the origin and destruction of Cascade volcanoes such as Mount St. Helens, Mount Rainier and Glacier Peak. Lab credit. May be taken as GEOL 118.</td>
</tr>
<tr>
<td>SCI 119</td>
<td>3</td>
<td>N</td>
<td>National Historic Field Study</td>
</tr>
<tr>
<td></td>
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<td>Study aspects of biology, zoology, hydrology, meteorology, geology, botany, and/or soil and environmental sciences through field observation and lab work. Includes a multi-day trip or multiple single-day trips. Transportation fee will be assessed. Previous students should take SCI 129.</td>
</tr>
<tr>
<td>SCI 121</td>
<td>5</td>
<td>N</td>
<td>Natural Disasters</td>
</tr>
<tr>
<td></td>
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<td>Investigate local and national earthquakes, volcanoes, floods, tsunamis, mudflows, landslides, avalanches and forest fire natural disasters. Examine the science behind natural disasters, exploring the disciplines of geology, meteorology, oceanography and astronomy. Lab and field trip include fees. Placement into ENGL 101 is strongly recommended.</td>
</tr>
<tr>
<td>SCI 122</td>
<td>1</td>
<td>N</td>
<td>Zoo Science Field Trip</td>
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<tr>
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<td>A field trip-based short course that introduces the concept of zoos in general, and the running of Woodland Park Zoo in particular. Includes five hours of lecture and a one-day field trip. Lab science.</td>
</tr>
<tr>
<td>SCI 129</td>
<td>3</td>
<td>N</td>
<td>Cascades to Puget Sound</td>
</tr>
<tr>
<td></td>
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<td>Study aspects of biology, zoology, hydrology, meteorology, geology, botany, and/or soil and environmental sciences through field observation and lab work involving some aspect of the water cycle in the greater Puget Sound area. Includes a multi-day trip or multiple single-day trips. Lab and transportation fees will be assessed.</td>
</tr>
<tr>
<td>SCI 131</td>
<td>5</td>
<td>C,N</td>
<td>Interdisciplinary Science 1</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Intro to science and scientific method for non-science majors and for students in the Associate in Elementary Education - DTA program. Covers measurements, the metric system, matter and energy, physical and chemical properties and changes, the atom, nuclear chemistry and the importance of science.</td>
</tr>
<tr>
<td>SCI 132</td>
<td>5</td>
<td>C</td>
<td>Interdisciplinary Science 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Intro to science and scientific method for non-science majors. Covers mechanics, some topics in astronomy, electricity and the importance of science.</td>
</tr>
<tr>
<td>SCI 133</td>
<td>5</td>
<td>C</td>
<td>Interdisciplinary Science 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For students in Associate in Elementary Education, DTA program. 3rd course of 3. Overview of Life Sciences of cellular biology, organismal biology, and ecology and Earth Sciences of geology and biogeology. Prereqs: SCI 131 and 132 each with 2.0 or higher or permission.</td>
</tr>
<tr>
<td>SCI 197</td>
<td>1-15</td>
<td>C,N</td>
<td>Co-Op Work Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Allows students to earn work experience credit in the science field. Prereq: Permission.</td>
</tr>
<tr>
<td>SCI 296</td>
<td>1-10</td>
<td>C,N</td>
<td>Travel: Tropical Ecosystem</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hands-on learning opportunities for undergraduates and others who undertake domestic and/or foreign travel. Learn outside the classroom and take advantage of cross cultural materials, flora and fauna, geographical locations, geologic formations, museums, terrestrial ecosystems, regional customs and foods, natural history, marine ecosystems, and field trips which are available only through travel.</td>
</tr>
</tbody>
</table>
Service Learning

Service-learning is an educational program that combines community involvement with academic instruction and is linked to specific classes as either a requirement or an option. Course assignments and final grades are determined by the faculty of the linked course. Advantages of service-learning include the opportunity to enhance understanding of course content, build experience for a resume, explore career options, and earn college credit. Registration is coordinated by the Service-Learning Program and faculty of the linked course during the second week of the quarter. Permission of Service-Learning Program is required for registration in SLN courses.

SLN 101 (1-3) N
Service Learning/Leaders
Serve the campus and/or local community in conjunction with class seminars that require reading, writing and observation related to the work. Prereq: Instructor permission.

SLN 102 (3) N
Service Learning/Leaders
Continuation of SLN 101. Prereq: Instructor permission.

SLN 103 (3) N
Service Learning/Leaders
Continuation of SLN 102. Prereq: Instructor permission.

SLN 104,110,111,112,113 (1-2) C,N
Service Learning: Communications
SLN 114,115,116,117,118 (2) C,N
Service Learning: English
SLN 120,130,131,132,133 (2) C,N
Service Learning: Humanities
SLN 134,135,136,137,138 (2) C,N
Service Learning: Inter Prg
SLN 140,141,142,143 (2) C,N
Service Learning: Language & Cultures
SLN 145,146,147,148 (2) C,N
Service Learning: Math
SLN 150,151,152,153 (2) C,N
Service Learning: Science
SLN 155,156,157,158 (2) C,N
Service Learning: Social Science

Social & Human Services

Field Practice/Chemical Dependency
Supervised community-based field experience in which students apply knowledge and develop skills by working in public and private agencies and organizations. Prereq: Permission.

SHS 100 (5) C
Intro to Human Services
This course provides an overview of the social and human services field from the perspective of the individual human services worker. Societal conditions, assumptions, and needs that impact delivery of services will be explored. Areas of knowledge, professional values and skills will be discussed. The characteristics of the human services agency will be examined, including professional roles, career opportunities, and challenges. Prereq: eligibility for ENGL& 101 and MAT 084.

SHS 103 (5) C
Social Welfare Policy
Introduction to social welfare policy, social justice, and systems. Emphasis on social welfare policies, systems, and services designed to respond to social issues: public welfare, child welfare, mental health, chemical dependency, aging, poverty, health, disabilities, and corrections. Prereq or corequisite: SHS 100 with a minimum 2.0 grade point average; Eligible for ENGL& 101 and MATH 084.

SHS 106 (5) C
Principles/Interviewing & Counseling
Intro to beginning-level interviewing and counseling skills in multicultural settings. Demonstration of human services values and knowledge of diverse populations’ needs through counseling techniques: developing relationships; identifying problems, solutions, and goals; and evaluating progress. Prereq: ENGL& 101, SHS 100, & SHS 103 with a minimum 2.0 grade point average. Eligible for MAT 084.

SHS 108 (5) C
Group Dynamics & Counseling
Intro to group work, including group processes, communication patterns, group and individual goal-setting, leadership and decision-making. Includes group participation, role-playing and simulations. Prereq or coreq: ENGL& 101: Prereq: SHS 100 with a 2.0 minimum GPA; Eligible for MATH 084 or equivalent.
**SHS 120 (3) C**
Intro Disabilities Study & Practice
This course surveys the historical perspectives, cultural attitudes and stereotypes that create barriers to personal and collective empowerment for individuals with disabilities. The course covers the social-political aspects of the disability rights movement and examines laws governing civil rights of individuals with disabilities. Students explore the intersection of gender, class, race and the human body with emphasis on social justice and privilege. Prereq: Eligibility ENGL& 101 and Math 084.

**SHS 150 (1) C**
HIV/AIDS Brief Risk Intervention
Includes history, trends, transmission, infection control, testing, counseling, BRI, and psychosocial issues. Meets requirements for human services and chemical dependency professionals. Approved by the WA State Division of Alcoholism and Social Abuse. 

**SHS 197 (3) C**
Field Practice/Social & Human Services
Supervised community-based field experience in which students apply knowledge and develop skills by working in public and private agencies and organizations. Prereq: Permission.

**SHS 198,199 (1-5) C**
Field Practice/Social & Human Services
Work experience in human services agencies, with individual and group supervision provided by agency professionals to share experiences and further develop work-related skills. Prereq: Permission.

**SHS 200 (4) C**
Theories of Counseling
Intro to psychopathology and assessment and counseling theories. Covers ethics, personality theory, counseling techniques and issues, and development of a personal style of assessment and counseling. Prereq: SHS 106.

**SHS 205 (3) C**
Crisis Intervention
Intro to crisis theory and techniques for the beginning mental health/human services professional. Students will develop assessment techniques and interviewing skills with high-stress populations presenting with psychiatric, health, drug and alcohol, sexual assault, intimate partner and domestic violence, bereavement, and suicide and homicide crises. Prereq: Eligible for ENGL& 101 and MAT 084.

**SHS 207 (3) C**
Behavior Management
For human service professionals working with children, adolescents and adults with behavioral problems. Covers learning theory and its application to clients in a variety of settings. Includes knowledge and skills needed to effectively help clients manage their behavior. Understand and practice behavior modification and management. Prereq: ENGL& 101 and eligible for MAT 084.

**SHS 209 (5) C**
Grief and Loss
Explores both the grief and loss experiences in the context of the helping professions. Models and types of grief and loss will be explored. Resources and interventions for clients will be researched. Transitions, situations, and circumstances that result in grief and loss will be examined, as well as cultural responses. Prereq: Eligibility for ENGL& 101 and MAT 084.

**SHS 210 (3) C**
Human Service Diversity
This course examines U.S. society and the diversity within it as well as the effects of societal structures on clients. Topics include an overview of general principles of cultural diversity and cross-cultural services delivery to individuals from many diverse backgrounds. Prerequisite or corequisite ENGL 102; prerequisite SHS 100, 103 with a minimum GPA of 2.0; eligibility MATH 084.

**SHS 215 (5) C**
Adolescent Development & Treatment
Focuses on adolescent development and concurrent social, cultural and sexual problems. Includes theory of normal and deviant behavior development, treatment theory and practice and effective use of community resources. Prereq: SHS 235.

**SHS 220 (3) C**
Independent Living I
Revolves around three themes: 1) delineating the nature and scope of problems related to the attainment of functional independence. 2) providing methods to assess the readiness of youths preparing to achieve and adequate level of self-sufficiency in the adult world. 3) providing methods to facilitate the learning process so youths might acquire the skills necessary for interdependent living in the community. Prereq: none.

**SHS 222 (3) C**
Conflict Management
Intro to understanding and responding effectively to conflict situations. Assess real life conflict cases and design corresponding intervention strategies through video and case studies. Complete a conflict style inventory and practice conflict communication skills. Prereq: Eligible for ENGL& 101 and MATH 084.

**SHS 223 (1) C**
Multicultural Counseling
Overview of Gay, Lesbian, Bisexual, and Transgender (GLBT) culture and issues. Covers theory, research and practices associated with GLBT multicultural competence, as well as the intersections of GLBT culture and race, ethnicity, gender, religion, sexuality and social class. Prereq: ENGL& 101 and MAT 084.

**SHS 224 (3) C**
Leadership Theory Skills
Covers selected major theories of effective leadership and application of leadership skills in the work setting. Examines the characteristics of effective leaders, and evaluates student's professional strengths for potential leadership development. Prereq: ENGL& 101 and MATH 084.

**SHS 225 (1) C**
Relapse Prevention
Defines behavioral and chemical characteristics of relapse and what relapse prevention involves. Focuses on relapse prevention categories, requirements of clients for a relapse prevention program, characteristics that have an impact on relapse, antecedents to relapse and some of the dysfunctional thinking patterns. Covers clinical and practical techniques and skills in an experiential environment. Prereq: SHS 235 and eligible for ENGL& 101 and MAT 084.

**SHS 226 (1) C**
Adolescent Assessment
Intro to adolescence from developmental, clinical and treatment perspectives. Focus on normal and dysfunctional adolescent development; assessment and diagnosis; progression of addiction/disease for the adolescent and the family; and implications for inpatient/outpatient treatment, aftercare, and relapse. Prereq: Eligible for ENGL& 101 and MAT 084.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHS 230</td>
<td>3</td>
<td>C</td>
<td>Suicide Risk Assessment</td>
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<tr>
<td>SHS 231</td>
<td>5</td>
<td>C</td>
<td>Pharms of Addictions</td>
</tr>
<tr>
<td>SHS 232</td>
<td>3</td>
<td>C</td>
<td>Chemical Dependency &amp; Family</td>
</tr>
<tr>
<td>SHS 233</td>
<td>5</td>
<td>C</td>
<td>Chemical Dependency Counseling</td>
</tr>
<tr>
<td>SHS 242</td>
<td>5</td>
<td>C</td>
<td>Mental Health Diagnosis</td>
</tr>
<tr>
<td>SHS 245</td>
<td>3</td>
<td>C</td>
<td>Mental Health Overview</td>
</tr>
<tr>
<td>SHS 250</td>
<td>4</td>
<td>C</td>
<td>Client &amp; Community Advocacy</td>
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<tr>
<td>SHS 255</td>
<td>5</td>
<td>C</td>
<td>Co Occurring Disorders</td>
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<tr>
<td>SHS 265</td>
<td>5</td>
<td>C</td>
<td>Management &amp; Supervision</td>
</tr>
<tr>
<td>SHS 270</td>
<td>5</td>
<td>C</td>
<td>Ethics in Hs and Cd</td>
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<tr>
<td>SHS 275</td>
<td>3</td>
<td>C</td>
<td>Chemical Dependency and Domestic Violence</td>
</tr>
<tr>
<td>SHS 280</td>
<td>3</td>
<td>C</td>
<td>Chemical Dependency Case Management</td>
</tr>
<tr>
<td>SHS 296</td>
<td>1</td>
<td>C</td>
<td>Special Topics</td>
</tr>
<tr>
<td>SHS 297</td>
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<td>Special Topics</td>
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<tr>
<td>SHS 298</td>
<td>5</td>
<td>C</td>
<td>Special Topics</td>
</tr>
<tr>
<td>SHS 299</td>
<td>1-5</td>
<td>C</td>
<td>Independent Study or Research</td>
</tr>
</tbody>
</table>
Social Sciences

**SOC 101** (3) C,N, S
Intro to Sociology
This course covers human interaction, social institutions, social stratification, social control, and social and cultural change.

**SOC 102** (5) C,N, S
Intro to American Culture
Focuses on unique American values, behavior and world view. Compares others values and world views and studies the implications and consequences of these differences. Gain insight from the perspectives of anthropology and sociology. Includes field trips.

**SOC 105** (5) C,N, S
Sociology of Black Americans
Evaluation of the sociological impact of the African-American experience in relation to various social systems in America.

**SOC 106** (5) C,N, S
Sociology of Asian Americans
Examination of Asian-American experiences in the United States from a sociological perspective. Analyzes Asian-American ethnic communities, social institutions, activities and issues.

SOC 120 (1-5) C,N
Sociology of the Media
Sociological perspective of print and electronic media, including television, film, news, and advertising. Analysis of media institutions and the way they affect social, political, and cultural discourse and identities. Examines how American identity shapes and is shaped by the media and the changes in this identity from one period to another.

**SOC 150** (5) C,N
Race/Ethnic Relations
Examines the majority-minority pattern of interaction in American society. Includes theories of race relations and issues shaping intra- and inter-racial ethnic relations.

**SOC 201** (5) C,N
Social Problems
Processes of social and personal disorganization and reorganization in relation to poverty, crime, suicide, family disorganization, mental disorders, and similar issues that are characterized as social problems. Prereq: Placement into ENGL& 101.

**SOC 220** (5) C,N
Sex Roles and Society
Survey of causes and consequences of sex/gender roles. Examines the relationships between men and women in the U.S. and other regions. Focuses on historical, biological, economical, psychological and anthropological perspectives, identifying and discussing the discernible recurring sex role patterns.

**SOC 225** (5) S
Psychology of Addiction
Psychology of addiction, a critical examination of the behavior and mental processes associated with addiction. Systemic approaches to investigation through psychosocial, biological, cognitive and sociobehavioral areas in psychology. Lecture, research, presentation and critical examination. 5 credit class, 200 level course. Prereq: PSYC 100 General Psychology or SOC 101 Intro to Sociology This is a dual PSYC/SOC course.

**SOC 230** (5) C,N, S
Human Sexuality

SOC 245 (5) C,N, S
Social Psychology
Examines the effect of others on the individual in areas such as self-concept, social cognition, conformity, helping, loving and liking, competition and cooperation and prejudice and discrimination. Research and autobiography by two of the following groups provide content and illustration: African Americans, Asian Americans, Native Americans and Hispanic Americans. May be taken as PSYC 245.

**SOC 250** (5) C,N
Marriage, Family, Intimate Relationships
Surveys the concept of family as a mode for personal living. Analyzes personal adjustment, parent-child relationships, marital and alternative structures and contemporary issues facing today’s family systems.

**SOC 253** (5) S
Organizational Behavior
Organizational behavior as seen through sociological theory. Concepts show how managers can improve organizational effectiveness by attending to the human side of the enterprise. Topics such as: leadership, conflict theory, motivation, social interaction theory, power, politics, group dynamics and organizational design are examined for the effects on employees and their performance.

**SOC 298** (1-5) C,N, S
Special Topics in Sociology
Independent study in selected sociology topics under faculty supervision. Prereq: Permission.

**SOC 299** (1-5) C,N
Special Problems in Sociology
Small group seminar to discuss selected sociology topics. Prereq: Permission.

Spanish

See Languages & Literature, page 318.

Supervision and Management

**SMG 100** (3) S
Leadership & Supervision
Intro to management. Covers leadership theories, style skills in various organizational settings; developing techniques for productive work groups; managing a diverse workforce; motivating employees; handling difficult people and situations; running effective meetings; and handling the responsibilities of being a leader, manager and supervisor.
SMG 103 (3) S
Supervise a Diverse Workforce
Examines perceptions held by supervisors and employees in connection with culturally and behaviorally diverse workers. Examines working with and supervising diverse populations. Explores current legislation and challenges of an evolving workforce.

SMG 110 (3) S
Financial Management
Covers budget preparation at the organizational level using both private sector and public organization formats and formulas. Emphasis on budget development, presentation and justification of proposed allocations. Prereq: Basic understanding of business computations.

SMG 120 (3) S
Hiring Personnel
Examines supervisor's role in staffing. Covers job analysis, descriptions and classifications, recruiting, selection, EEO and new employee orientation.

SMG 131 (3) S
Group Behavior & Supervisor
Overview of group dynamics, moderation, strategies and productivity in the work place, with emphasis on diversity. Prereq: SMG 100.

SMG 197 (1-15) S
Supervision and Management Internship
Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training. Orientation to Internships required prior to registration. Prereq: Permission.

SMG 201 (3) S
Entrepreneurial Manager
Study of the major steps, formation and growth for setting up a new small business or department, project or contract within a large organization. Focuses on entrepreneurial characteristics and the task of moving from concept to commercialization. Emphasis on time management, planning and projections, securing capital and marketing plans. Prereq: SMG 100.

SMG 210 (3) S
Project Management
Covers project planning basics: timelines, evaluation, implementing budgeting concepts and formulating a budget request strategy with specific and measurable outcomes. Focuses on team concepts. Includes computer lab applications.

SMG 213 (2) S
Fundraising and Grantwriting
Especially for nonprofits. Explores fundraising and grant writing, including identifying fund-raising needs and goals; designing a viable fund-raising program (campaign); creative fund-raising activities; writing grants; understanding grant requirements and their relationship to the nonprofit.

SMG 217 (3) S
Organizational Behavior
Intro to strategies for developing an effective organization. Provides history of the field, overview of areas in which organizational behavior interventions can be of use and the types of interventions used in work environments.

SMG 220 (3) S
Personnel Performance Management
Covers principles and techniques for employee performance programs, appraisals, coaching and counseling, disciplinary process and wage surveys. Explores reward systems, common disciplinary practice and employment law. Covers assessment of training needs, planning, development and evaluation of training programs.

SMG 222 (3) S
Management Labor Relations
Covers the supervisory role in employee and labor relations. Includes history of management thought, labor negotiations, laws affecting labor agreements, union contracts and the supervisor's role in the negotiating process.

SMG 223 (2) S
Marketing Meetings and Presentation Skills
Explores the dynamics of the marketing process. Includes the relevance of marketing a nonprofit and communicating to its numerous constituencies. Covers productive meetings and presentation skills and techniques for nonprofit leadership.

SMG 233 (2) S
Nonprofit Staff Board and Volunteers
Covers the development of staff, board and volunteers. Explores election of staff and board members, developing and capitalizing on their talents and skills, effective use of staff, drawing on the expertise of board members and expanding programs through the cultivation of volunteer/member development.

SMG 243 (2) S
Its the Law: Contracts
Covers the law as it relates to contracts and liabilities in nonprofits. Focuses on legal issues that nonprofit staff and boards need to be aware of, including personnel contracts, grant contracts, personal service contracts, fund-raising contracts, service provider contracts, antitrust and related liabilities. Includes employment laws, officer/director liabilities and indemnification.

SMG 253 (2) S
Executive Development
Focuses on the role of executives in a nonprofit. Explores dynamic and practical leadership skills including characteristics and styles; team-building; organizational leadership and board relations; constituent leadership; fund-raising; crisis management; and political leadership. Covers self-nurturing and expansion of professional competencies.

SMG 263 (2) S
Nonprofit Strategic Plan
Focuses on nonprofit planning including mission statement, program goals and objectives, annual plan and long range strategic plan. Covers membership development, fund-raising plans and board, staff and constituent development.

SMG 298 (1-10) S
Independent Study—Supervision & Management
Provides opportunity for research, advanced study, or special projects. Work independently with an instructor. Credits vary. Prereq: Permission.

SMG 299 (1-10) S
Special Topics
Study an approved topic such as marketing, sales, advertising, retail management, promotion, customer service, consumer behavior, marketing research, entrepreneurship and business communication. May include a portfolio, project or activity to demonstrate competencies. Includes an oral presentation evaluated by faculty and industry representatives. Prereq: Permission.

Surgical Technology
SURG 111 (6) C
Surgical Lab
Covers principles and techniques of operating room procedures. Includes gowning and gloving, aseptic technique, creating and maintaining a sterile field, draping materials, basic instrumentation and patient transport. Prereq: Permission.
### SURG 113 (10) C
Surgical Theory I
Intro to surgical technology, including legal and ethical aspects, relationships with coworkers, hospital organization and interdisciplinary relations, physical and psychological aspects of patient care, operating room techniques and procedures. Prereq: Permission.

### SURG 115 (2) C
Clinical Orientation
Covers observation of the environment, routines, supplies and equipment, patient-team interaction and application of scientific principles. Prereq: Permission.

### SURG 121 (6) C
Surgical Spec/Prof Prep
Intro to the principles and practice of surgical pharmacology and anesthesia related to the surgical patient. Learn about minimally invasive surgical instrumentation, equipment and supplies. Prereqs: SURG 111, 113, 115.

### SURG 123 (9) C
Surgical Theory II
Examines microbiology, pharmacology and anesthesiology relating to the surgical patient. Includes additional peri-operative care techniques and surgical procedures, pathophysiology and the technologist's role in surgery, covers general, orthopedic, gynecological, genitourinary-reproductive and ophthalmic specialties. Prereq: Permission.

### SURG 125 (4) C
Clinical Practice I
Provides clinical practice, with focus on development of entry-level skills. Prereq: Permission.

### SURG 133 (10) C
Surgical Theory III
Intro to circulating duties and job applicant skills. Covers advanced surgical specialties such as ear, nose and throat, vascular, cardiovascular, thoracic, neurological, plastic/reconstructive and pediatric procedures. Prereq: Permission.

### SURG 135 (12) C
Clinical Practice II
Provides advanced clinical practice to develop entry-level skills. Prereq: Permission.

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### Sustainability

#### SUST 101 (5) N
Intro to Sustainability
Intro to the concept and principles of sustainability, including science, technology, economic, political and social factors. Prereq: Recommend placement into ENGL& 101.

#### SUST 111 (5) N
Sustainability Healthcare
Survey of sustainability in healthcare, relevant to environmental services, waste management, hospital facilities, and dietary services. Open to all. Certificate (5-credit) issued on completion. Prereq: Permission.

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### Sustainable Building Science Technology Bachelor of Applied Science

Students must be accepted into the program in order to take these courses.

#### SBST 301 (3) S
Building Science
Overview of the principles of Building Science and how it is applied to the design, operation and maintenance of buildings and their systems. Covers the interaction of those systems, and the careers that use and are impacted by these principles and their applications.

#### SBST 302 (2) S
Building Components and Systems
Overview of building components, space conditioning and lighting systems, their interactions, and the building science issues surrounding and impacting them.

#### SBST 314 (2) S
Professional Portfolio
Document prior work experience by developing an E-portfolio to receive Workforce Experience Practicum credit.

#### SBST 315 (10) S
Work Experience Practicum
Credits based on the successful completion of the Professional Portfolio course SBST 314. Students must have demonstrated 2-5 years of relevant work experience in their area of interest.

#### SBST 321 (2) S
Building Codes in Washington State
Overview of building codes and requirements.

#### SBST 322 (2) S
Energy Analysis/Auditing
Covers energy auditing and analysis skills for commercial buildings.

#### SBST 325 (1-10) S
Sustainable Building Science Technology Internship
Observe, reflect and practice sustainable building science technology techniques in a technical, post-secondary environment. Find a building science placement in the field of interest and work with a site supervisor to develop and deliver relevant curriculum. The site supervisor and college faculty advisor will evaluate the internship.

#### SBST 331 (2) S
Financing Upgrades
Overview of energy economics.

#### SBST 332 (3) S
Building Codes in Washington
Overview of building energy codes in Washington State.

#### SBST 333 (4) S
Building Controls
Overview of building components.

#### SBST 401 (2) S
Utility Rates
Overview of utility rate structure.

#### SBST 402 (3) S
Lighting
Overview of building lighting systems.

#### SBST 411 (3) S
Energy Policy
Overview of energy policy.

#### SBST 422 (4) S
Facility Management
Overview of facilities management.

#### SBST 431 (4) S
Professional Communication
Overview of professional communication in the building science industry

#### SBST 432 (3) S
Fiscal Management
Overview of fiscal management for facility managers.

#### SBST 489 (1) S
Sustainable Building Science Technology Capstone Course
Develop a project based on previous classes and internship experiences.
Course Descriptions

Trades
See South’s Georgetown Campus, Apprenticeship & Education Center programs, page 172.

Undergraduate Research

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UGR 214</td>
<td>Intro to Scientific Research</td>
<td>1-5</td>
<td>C,N,S</td>
<td>Preparation for successful completion of an independent research project. Includes the application of scientific method, ethics, research methods, proposal writing and presentation techniques.</td>
</tr>
<tr>
<td>UGR 294</td>
<td>Independent Research</td>
<td>1-5</td>
<td>C,N,S</td>
<td>Work collaboratively with peers and faculty. Design, complete and publicly present an original research project. Prereq: Completion of UGR 214 or instructor permission.</td>
</tr>
<tr>
<td>UGR 295</td>
<td>UGR – Psychology</td>
<td>1-5</td>
<td>N</td>
<td>Work collaboratively with peers and faculty to design, complete, and publicly present an original research project in Psychology. Prereq: PSYC 209.</td>
</tr>
</tbody>
</table>

Video Communications

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 197</td>
<td>Work Experience: Film VI</td>
<td>1-5</td>
<td>C</td>
<td>Earn work experience credit in the video field. Prereq: Permission.</td>
</tr>
<tr>
<td>COM 200</td>
<td>Small Group Productions</td>
<td>4</td>
<td>C</td>
<td>Individuals or production teams pursue individual and small-scale projects. Covers topics such as personal video, oral history recording, video art, ethnographic video and video installation. Coreq: ENGL 155.</td>
</tr>
<tr>
<td>COM 214</td>
<td>History of Film &amp; Video</td>
<td>3</td>
<td>C</td>
<td>Examines the development of film as art and entertainment: early beginnings as novelty and sideshow; refinement as an art form; role in mass culture. Emphasizes the narrative film from the U.S. and abroad. Screenings show works that are significant because of their place in history, aesthetic worth or stylistic interest.</td>
</tr>
<tr>
<td>COM 215</td>
<td>Media Law and Ethics</td>
<td>3</td>
<td>C</td>
<td>Intro to the basic concepts of law applicable to the film, video, on-line industries and production situations. Covers the American legal system, contracts, licenses, regulatory codes, principles of intellectual property laws and the First Amendment.</td>
</tr>
<tr>
<td>COM 225</td>
<td>Advanced TV Production &amp; Appl. Com</td>
<td>5</td>
<td>C</td>
<td>Expand and refine production skills. Assume roles for large-scale 16mm film and HD video project produced in as sophisticated and professional manner.</td>
</tr>
<tr>
<td>COM 235</td>
<td>Production Management</td>
<td>3</td>
<td>C</td>
<td>Overview of the duties and responsibilities of a production manager: script, location, union requirements, production board, contracts and negotiations, and fiscal management. Rotate in the role of supervisor of a production crew for television and stage productions. Explore interpersonal interactions.</td>
</tr>
<tr>
<td>COM 236</td>
<td>Audio Production</td>
<td>3</td>
<td>C</td>
<td>Explores basic sound theory, audio production and post-production skills used in film and video. Learn to capture and manipulate sound. Covers selection and handling of microphones, Time Code, Foley and sound effects, and the use of digital field recorders and mixers.</td>
</tr>
<tr>
<td>COM 240</td>
<td>Theatre/Video Production, Operations</td>
<td>3</td>
<td>C</td>
<td>Refine post-production skills and complete a portfolio project that meets a high technical standard. Includes video compression, video on the web, motion graphics, audio sweetening, and working with graphic designers. Prereq: 2nd year standing.</td>
</tr>
<tr>
<td>COM 250</td>
<td>Portfolio Prep Art in Residence</td>
<td>2</td>
<td>C</td>
<td>Clarify career intentions and act upon them. Research job markets and trends, develop contact lists, a professional portfolio, a résumé, cover letters, a portfolio reel, and a personal website. Prereq: 2.0 or better in all previous 200 level courses or permission from division Dean.</td>
</tr>
<tr>
<td>COM 260</td>
<td>Directing</td>
<td>3</td>
<td>C</td>
<td>Covers basic principles and practices of directing for film and video. Explore script analysis, visualization and storytelling, staging and blocking, working with other members of the production team, communicating with actors, and preparation for editing.</td>
</tr>
<tr>
<td>COM 270</td>
<td>In-House Productions</td>
<td>1-5</td>
<td>C</td>
<td>A comprehensive exploration of the tools and techniques of cinematography. Learn the care and handling of motion picture cameras, lenses and accessories, film stocks, lighting and grip gear, exposure meters, and lab processes.</td>
</tr>
<tr>
<td>COM 298</td>
<td>Special Topics</td>
<td>1-5</td>
<td>C</td>
<td>Seminar on selected topics or activities in video communications. Prereq: Permission.</td>
</tr>
<tr>
<td>COM 299</td>
<td>Independent Study Video Communications</td>
<td>1-5</td>
<td>C</td>
<td>This is an independent study course of selected topic(s) in video communications. A research project of mutual desirability is assigned by the appropriate supervising faculty. Prereq: Permission of Instructor.</td>
</tr>
</tbody>
</table>

Vietnamese
See Languages & Literature, page 318.

Watch Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIN 111</td>
<td>Intro to Watch Technology</td>
<td>6</td>
<td>N</td>
<td>Survey of the history of time measurement and the watch and clock trade. Learn safe shop practices including lab hazard, accident prevention and first aid. Intro to trade terminology associated with tools, equipment, technical drawing, measuring devices and applications appropriate to the trade and physical properties of materials. Coreqs: HIN 112 and 113.</td>
</tr>
<tr>
<td>HIN 112</td>
<td>Watch Technology I: Tools, Equipment</td>
<td>6</td>
<td>N</td>
<td>Learn to use and maintain in a lab setting, including jeweler’s saw, tweezers, screwdrivers, files and the watchmaker’s lathe. Learn the fundamentals of hardening, tempering and annealing steel; measuring techniques and applying the metric system in the use of instruments and gauges. Make technical drawings and manufacture tools and parts using drawings. Coreq: HIN 111 and 113.</td>
</tr>
</tbody>
</table>
### Course Descriptions

**HIN 113** (10) N  
**Watch Tech I: Practicum**  
10 credit practicum. Apply knowledge from HIN 111 and 112. In lab practice making tools and develop basic skills in the manufacture and repair of parts for time pieces. Identify and apply tools and equipment using safety precautions in a watchmaker's shop. Practice measuring techniques and apply problem-solving skills to manufacturing. Coreqs: HIN 111 and 112.

**HIN 121** (6) N  
**Watch Tech II Professional Knowledge**  
Learn or review the math necessary to calculate formulas used in manufacturing and watch repair. Use formulas to find the length of mainsprings, calculate running time and beats per hour. Apply various polishing materials and techniques to master the manufacture of small parts.

**HIN 122** (6) N  
**Watch Tech II: Watchmakers Lathe**  
Intro to use, care and maintenance of specialty lathes using the watchmakers' turns, the Jacto tool and pivot polishing machine.

**HIN 123** (10) N  
**Watch Tech II: Practicum**  
Apply knowledge from HIN 121 and HIN 122. Practice manufacturing watch stems and pivoting. Identify and apply appropriate tools, equipment and safety precautions in a horological repair shop.

**HIN 131** (6) N  
**Watch Tech III: Winding & Setting**  
Learn to correct common errors in the mainspring barrel, the barrel bridge and mainplate. Intro to common types of setting mechanisms. Practice correct disassembly, assessment and adjustment, re-assembly and lubrication procedures. Learn mathematical formulas for determining correct size of mainsprings. Prereqs: HIN 121, 122 and 123. Coreqs: HIN 132 and 133.

**HIN 132** (6) N  
**Watch Tech III: Watch Gear Training**  
Intro to the mathematics involved in working with the gear train and tooth form, module, pitch and distance between centers, including calculations to determine running time and vibrations per hour for mechanical watches and ratios. Learn to dismantle, assemble, maintain and repair the gear train of a watch. Prereqs: HIN 121, 122 and 123. Coreqs: HIN 131 and 133.

**HIN 133** (10) N  
**Watch Tech III: Practicum**  
10-credit practicum. Apply knowledge from HIN 131 and 132. In lab practice jewel setting and adjusting. Develop skills to prepare for and complete the third WOSTEP intermediate exam (winding, setting, gear train). Expand skills to identify and apply appropriate tools and equipment safely in a horological repair shop. Prereqs: HIN 121, 122 and 123. Coreqs: HIN 131 and 132.

**HIN 141** (4) N  
**Watch Tech IV: Escapements**  

**HIN 142** (4) N  
**Watch Tech IV: External Parts**  
Learn about different case styles and the parts that complete the case including crystals, crowns, push buttons, dials, hands, and gaskets. Prereqs: HIN 131, 132 and 133. Coreqs: HIN 141 and 143.

**HIN 143** (8) N  
**Watch Tech IV: Practicum**  

**HIN 197** (10) N  
**Special Topics: Horology**  
Optional study of selected topics in Watch and Clock Repair (Horology) as considered appropriate by the instructor and/or Watch and Clock faculty. Course content follows WOSTEP (Watchmakers of Switzerland Training and Educational Program) curriculum. Prereq: Instructor permission.

**HIN 211** (6) N  
**Watch Tech V: Precision I**  
Learn concepts of precision timing with emphasis on the eight influences of isochronisms (friction, external influence, regulating pins, escapement, magnetism, temperature, poising of balance wheel, poising of hairspring). Students apply the theoretical concepts of precision timing to practice watches: analyzing errors and making corrections to improve the timekeeping of the watches. Prereq: Permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 212 and 214.

**HIN 212** (6) N  
**Watch Tech V: Electronic**  
Learn fundamentals of electronics to understand how quartz watches work: tension, current, capacity, power, consumption, electric field, magnetic field, functioning of stepping motors, energy source, and functioning of the transistors in switching. Intro to equipment designed specifically for testing quartz watches and to analyze the various components of watches. Prereq: Permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 211 and 212.

**HIN 213** (10) N  
**Watch Tech V: Precision Timing 2**  
Continue study of theory and practical application of the principles of precision timing. Prereq: HIN 211, 212 and 213. Coreq: HIN 222 and 223.

**HIN 221** (6) N  
**Watch Tech VI: Electronic**  
Intro to repair of pocket watches and/or wristwatches, the service, repair and replacement of external parts of watches. Practice includes work on precision timing, quartz watches, short jobs (battery, crystal, crown and stem replacement) and customer repairs. Prereq: Instructor permission, HIN 141, 142 and 143 with 2.0. Coreq: HIN 211 and 212.

**HIN 222** (6) N  
**Watch Tech VI: Auto Watches**  
Intro to the various self-winding (automatic) mechanisms for watches. Practice testing, adjusting, disassembly and assembly of automatic mechanisms. Study history and development of these mechanisms. Prereq: HIN 211, 212 and 213. Coreq: HIN 221 and 223.

**HIN 223** (10) N  
**Watch Tech VI: Practicum**  
Apply knowledge from HIN 221 and 222. Practice repairing automatic watches and continue working on precision timing. Further develop skills with appropriate tools, equipment and safety precautions in a horological repair shop. Prereq: HIN 211, 212 and 213. Coreq: HIN 221 and 222.

**HIN 231** (6) N  
**Watch Tech VII: Advanced Precision Timing**  
Refine and synthesize the art of precision timing. Each unit of the watch must be clean and well-adjusted. Check each unit systematically so that repairs are made in a timely fashion. Prereq: HIN 221, 222 and 223. Coreq: HIN 232 and 233.
HIN 232  (6)  N  
Watch Tech VII: Chronographs  
Learn to repair the main types of chronographs—those with column wheels and those with cams. Covers the function and components of chronographs, checking the general condition and correct fitting of components, understanding and correct application of lubrication, identifying errors and carrying out required corrections. Prereq: HIN 221, 222 and 223. Coreqs: HIN 231 and 233.

HIN 233  (10)  N  
Watch Tech VIII: Practicum  

HIN 241  (4)  N  
Watch Tech VIII: After Sales & Service  

HIN 242  (4)  N  
Watch Tech VIII: Review Courses  

HIN 243  (8)  N  
Watch Tech VIII: Practicum  

HIN 298  (1-10)  N  
Special Topics: Watch & Clock  
Study of selected topics in Watch and Clock repair as considered appropriate by the instructor. Content, format and project varies depending on topics.

HIN 299  (5)  N  
Independent Study: Watch & Clock  
An independent study of selected topics in Watch and Clock repair (Horology) as considered appropriate by the instructor.

Web Development

See Computing Technology, Computer Science and Information Technology.
WFT 227 (8) S
Advanced Fabrication I
Covers knowledge of all shop equipment and theory of operation and applications of the SMAW, GMAW, FCA W, and GTAW processes through project-oriented exercises. Design and create preapproved individual project. Prereq: All level 100 WFT courses.

WFT 228 (7) S
Pipe Shielded Metal/Gas
Learn more advanced configurations and position for welding with the E 7018 Shielded Metal Arc Welding and combining Gas Tungsten Arc Welding (GTAW) on pipe including vertical and overhead. Cut and bevel pipe with oxy fuel and hand tools. Prepare for AWS pipe certification testing procedure. Prereqs: All level 100 WFT courses and 227.

WFT 238 (8) S
Advanced Fabrication II
Improve skills in all major areas including design and development, estimating, layout, cutting (machine torch & Plasma), forming, fit up, tack welding, and product assessment. Fabricate an approved individual design project. Prereqs: All level 100 WFT courses and 227.

WFT 297 (1-12) S
Special Topics Weld Fabrication
Special topics for an individual or group in welding fabrication field. Prereq: Permission.

Wine Technology
Students must be 18 to participate in wine-tasting and wine-making.

WIN 101 (3) S
Intro to Enology
Intro to the science of winemaking, including history and geographical distribution; grape varieties and wine types; influence of climate and soil; wine fermentation, handling, storage and bottling methods; wine disorders; winery sanitation; and legal compliance. Lab fee.

WIN 102 (3) S
Enology Lab Analysis
Intro to vineyard and winery laboratory practices including basic chemistry principles, laboratory techniques and commonly used analysis methods for musts and wines. Lab fee. Prereq: Intro to Chemistry, WIN 101 or permission.

WIN 103 (4) S
Elements of Wine Production
Intro to production of wines including considerations that take place during the harvesting of grapes, transportation, stemming and crushing. May include field trip. Oriented for the beginning student. Lab fee. Prereq: WIN 101 and permission. Coreq: WIN 102 and 107.

WIN 104 (4) S
Elements of Wine Production II

WIN 105 (4) S
Elements of Wine Production III

WIN 107 (1) S
Winery Production I
Practical application of theories and principles from WIN 108, Lab fee. Prereq: WIN 101 or permission. Coreq: WIN 103.

WIN 108 (1) S
Winery Production II
Practical application of theories and principles from WIN 104. Lab fee. Prereq: WIN 103, 107 or permission. Coreq: WIN 105.

WIN 109 (1) S
Winery Production III
Advanced studies in winemaking, Practical application of the theories and principles of WIN 105. Lab fee. Prereq: WIN 121, 104, 108 or permission. Coreq: WIN 105.

WIN 110 (3) S
Intro to Wine Science
An introduction to scientific aspects of wine composition and production for the student with a limited background in chemistry and microbiology. Prereq: WIN 101, 123, 133, MATH 098, CHEM 139.

WIN 121 (3) S
Intro to Viticulture
Intro to the theory of grape growing including botany, anatomy, history, distribution, propagation, varieties, wine type, climate, production practices, and common diseases and pests.

WIN 122 (3) S
Wine Chemistry and Micro
Covers wine chemistry and microbiology including wine acidity, sulfur dioxide, protein and phenolic equilibria and other concerns. Learn to make informed decisions on style, crush options, cellar practices, fining, stabilization and quality assurance. Prereq: Intro to Chemistry, WIN 101, 102 or permission.

WIN 123 (3) S
Sensory Evaluation
An introduction to wine sensory evaluation methods: statistical analysis of trials, philosophy of wine styles, and the common evaluation of representative wines. Materials Fee: $95.00, students must be 21 years of age.

WIN 131 (3) S
Intro to Washington Wine
Intro to wines produced in Washington, including history, viticulture practices and winemaking styles. Includes sensory evaluation of representative Washington wines. Lab fee.

WIN 132 (3) S
Wine History and Appreciation
A survey of wine and its role in history, religion, art, culture and society from prehistory to now. Includes sensory evaluation of representative wines. Lab fee.

WIN 133 (5) S
Intro to Wines of World
Intro to the world’s wine-producing regions, including history, viticulture practices and winemaking styles. Includes sensory evaluation of representative wines. Lab fee.

WIN 141 (3) S
Wine Marketing and Sales
Intro to wine marketing and sales methods, basic approaches to packaging, advertising, promotion, retail and wholesale selling of wine. Prereq: Intro to Business, Intro to Marketing or permission.

WIN 142 (3) S
Wine Business
Overview of winery operations with emphasis on inventory, pricing, forecasting, sales methods, allocating and distribution of wine from the manufacturer. Covers compliance for Washington State. Includes equipment, insurance, bonding, production, general management and the unique space needs of a winery. Prereqs: BUS & 101, BUS 114 and WIN 141.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIN 151</td>
<td>(3) S</td>
<td>S</td>
<td>Intro to Food Wine Pairing&lt;br&gt;Learn the basic elements of the character and key components of wines. Includes the four primary taste sensations present in everyday food (salty, sweet, bitter and savoury) and how these affect the taste of wine. Lab fee. Prereq: WIN 101.</td>
</tr>
<tr>
<td>WIN 152</td>
<td>(3) S</td>
<td>S</td>
<td>Advanced Food Wine Pairing&lt;br&gt;Continuation of WIN 151. Evaluate the character and key components of wines. Covers the different philosophies of classes and traditional pairs and opens the books on a new and emerging partnership between food and wine. Lab fee. Prereq: WIN 151.</td>
</tr>
<tr>
<td>WIN 153</td>
<td>(4) S</td>
<td>S</td>
<td>Food Wine Pairing Varieties I&lt;br&gt;Focusses on Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay and Sauvignon Blanc. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.</td>
</tr>
<tr>
<td>WIN 154</td>
<td>(4) S</td>
<td>S</td>
<td>Food Wine Pairing Varieties II&lt;br&gt;Focusses on Zinfandel, Rhone style Syrah, Viognier, Pinot Grigio and others. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.</td>
</tr>
<tr>
<td>WIN 155</td>
<td>(4) S</td>
<td>S</td>
<td>Food Wine Pairing Varieties III&lt;br&gt;Focusses on Italian reds and whites, Rieslings and/or other specific varietals. Prereq: WIN 153 or 154 or permission.</td>
</tr>
<tr>
<td>WIN 156</td>
<td>(2) S</td>
<td>S</td>
<td>Food Wine Pairing Fortif&lt;br&gt;Focusses on Sherry, Port, Madeira, Marsala and others. Prereq: WIN 153 or 154 or permission.</td>
</tr>
<tr>
<td>WIN 157</td>
<td>(2) S</td>
<td>S</td>
<td>Food Wine Pairing Dessert&lt;br&gt;Focusses on dessert wines: sweet wines, sparkling wines, red varietals and others. Prereq: WIN 153 or 154 or permission.</td>
</tr>
<tr>
<td>WIN 197</td>
<td>(3-5) S</td>
<td>S</td>
<td>Wine Industry Internship&lt;br&gt;Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training. Orientation to internships required prior to registration. Prereq: Permission.</td>
</tr>
<tr>
<td>WCO 110</td>
<td>(18) C</td>
<td>C</td>
<td>Intro to Professional Wood Construction&lt;br&gt;Intro to wood construction skills and safety, including safe operation of basic hand and power tools, wood construction terminology and materials.</td>
</tr>
<tr>
<td>WCO 120</td>
<td>(1) C</td>
<td>C</td>
<td>Const. Marine First Aid&lt;br&gt;11-hour course to certify students in First Aid and CPR as required by Washington State Department of Labor and Industries WAC 296-24.</td>
</tr>
<tr>
<td>WCO 131</td>
<td>(18) C</td>
<td>C</td>
<td>Lofting and Layout&lt;br&gt;Covers the responsibilities of a boatbuilder beginning with lofting and layout. Interpret designer's drawing and reproduce it full size on a loft surface from which construction patterns and templates are lifted. Includes construction of a Pl scale deck, half-models and brass bevels. Participate in new boat construction and boat repair as available. Prereqs: WCO 110, 120.</td>
</tr>
<tr>
<td>WCO 132</td>
<td>(18) C</td>
<td>C</td>
<td>Intro Composites Marine&lt;br&gt;Intro to fiberglass boatbuilding and marine cabinetry construction. Work in teams to lay up, by hand, a complete fiberglass hull, ready to receive wood trim, then begin the marine cabinet project. Uses industry safety and production standards. Prereqs: WCO 110, 120, 131.</td>
</tr>
<tr>
<td>WCO 133</td>
<td>(18) C</td>
<td>C</td>
<td>Advanced Composites&lt;br&gt;Explores more complex fiberglass boatbuilding and repair problems, including repair of damaged fiberglass structures, plug and mold building, and advanced composites, including resin infusion. Apply wood trim to the fiberglass boat constructed in the previous quarter, and complete the marine cabinet. Emphasizes safe and productive use of machinery and supplies. Prereqs: WCO 110, 120, 131, 132.</td>
</tr>
<tr>
<td>WCO 134</td>
<td>(18) C</td>
<td>C</td>
<td>Basic Wooden Boatbuilding&lt;br&gt;Expands skills and concepts. Emphasis on wood boat construction in contemporary and traditional techniques. Work on a wooden boat already under construction, with new boats being started periodically. Covers hull structure, both chine and round bilge. Prereqs: WCO 110, 120, 131, 132, 133.</td>
</tr>
<tr>
<td>WCO 136</td>
<td>(18) C</td>
<td>C</td>
<td>Selected Topics&lt;br&gt;Boatbuilding Optional. Opportunity to re-visit a particular project or skill area in order to develop greater command of the subject matter, or to complete an unfinished project.</td>
</tr>
<tr>
<td>WCO 137</td>
<td>(18) C</td>
<td>C</td>
<td>Special Project&lt;br&gt;Opportunity to build their own wood or fiberglass boat or to undertake a more comprehensive boat restoration. Emphasis on performance in a professional manner in safety and project execution.</td>
</tr>
<tr>
<td>WCO 140</td>
<td>(18) C</td>
<td>C</td>
<td>Carpentry&lt;br&gt;Four quarters of work dealing with residential construction and remodeling, including technical knowledge and hands-on experience. Prereq: WCO 110. Q-1: Concrete forms &amp; footings, floor systems &amp; job safety. Q-2: General Framing construction, roof framing, stair building, working at heights. Q-3: Finish work, setting windows &amp; doors, machine safety. Q-4: Selected class projects.</td>
</tr>
</tbody>
</table>
WCO 141 (18) C
Residential Remodel Preserve Carpentry
Covers specific techniques in residential remodeling including bathrooms and kitchens, stairs, scaffolding design and construction, sheetrock demolition, installation and repair and siding application. Prereq: WCO 110.

WCO 142 (4) C
Intro Carpentry Blueprint
Intro to becoming a professional carpenter. Focuses on career pathways, craftsmanship, vocabulary, blueprint reading, and jobsite and tool safety. Covers materials, products, tools and best practices for constructing sustainable residential and light commercial construction. Emphasizes developing a strong work ethic, communication skills and collaboration strategies. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 143 (5) C
Building Site System
Develops skills in site selection, building layout, surveying, and moisture management. Covers appropriate selection of materials, products, tools and best practices for sustainable residential and light commercial construction. Emphasizes developing a strong work ethic, communication skills and collaboration strategies. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 144 (9) C
Foundation System
Develops skills in building foundations including form construction, concrete and cement placement, reinforcement and finishing. Covers appropriate selection of materials, products, tools and best practices for sustainable residential and light commercial construction. Emphasizes developing a strong work ethic, communication skills and collaboration strategies. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 145 (9) C
Framing Systems
Develops skills in structural framing systems including building physics, framing layout, alternative and traditional framing techniques and energy efficiency strategies. Covers appropriate selection of materials, products, tools and best practices for sustainable residential and light commercial construction. Emphasizes developing a strong work ethic, communication skills and collaboration strategies. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 146 (5) C
Roof System

WCO 147 (4) C
Stair System
Develops skills in stair systems, including interior and exterior framing styles, layout techniques, and design strategies and techniques. Covers appropriate selection of materials, products, tools and best practices for constructing durable stairways in residential and light commercial buildings. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 148 (9) C
Exterior Finishes
Develops skills in building exterior systems including building enclosure design, siding installation techniques, installing insulation, window types and installation, flashing techniques and strategies, and trim design and installation techniques. Covers appropriate selection of materials, products, tools and best practices for sustainable residential and light commercial construction. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 149 (9) C
Interior Finishes
Develops skills in building interior systems including drywall installation and finishing, door and trim installation, finish carpentry techniques and strategies. Covers appropriate selection of materials, products, tools and best practices for sustainable residential and light commercial construction. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 150 (18) C
Cabinetmaking/Millworking

WCO 151 (18) C
Intro Cabinetmaking Fundamentals
Learn to work safely and efficiently with hand, portable, and stationary tools to produce jigs and fixtures to increase productivity. Covers basic principles of joining and assembling, blueprint reading, layout procedures, developing a cut list, milling procedures, and fabrication techniques to successfully produce required projects. Use working drawings, layout on a story stick or on a CAD program to construct a router table.

WCO 153 (18) C
Basic Cabinetmaking Fundamentals
Build a series of jigs and fixtures to produce basic traditional joinery. Use working drawings to produce a frameless cabinet based on the 32mm system of cabinet construction, and a face frame cabinet for personal hand tool storage. Includes workplace standards for self-confidence, interpersonal communication and safe use of equipment and tools, and individual skills development.

WCO 155 (18) C
Advanced Cabinetmaking Arch Furniture
Design, layout and construct three pieces of furniture using advanced joinery techniques, applications of veneers, and previously learned construction techniques. Emphasizes mortise and tenon joinery, tapered legs and application of basic veneering techniques. Within certain criteria, choose own dimensions, materials and detailing.

WCO 157 (18) C
Independent Capstone Project
Propose a culminating project of interior furnishings (casework, furniture, and millwork) of a custom or limited production fabrication. Devise a coherent engineering approach to the concept and manage all project tasks. Emphasizes individual time management, problem solving, creativity, and professional growth. Expand fabrication skills. All projects must be faculty approved.

WCO 160 (3) C
Architectural Blueprint Reading
Focuses on how to read and apply information gained from blueprints for cost estimating and developing cutting lists.

WCO 164 (2) C
Roofframing & Stairbuilding
Develop and upgrade efficiency in stair- and roof-building with new techniques and skills.

WCO 166 (3) C
Furniture Design & Construction
A class to include a survey of furniture design trends in both traditional and modern furniture. The design process is outlined, giving students an opportunity to explore and refine their own design ideas. Students will design a table and with instructor approval begin construction of their own design. Prereq: Completion of core, cabinet I & II or permission of instructor.
**WCO 167 (4) C**  
**Fine Furniture I**  
Intensive course designed for persons with solid cabinetmaking fundamentals who would like to learn techniques suited to making fine furniture in the northern European tradition. The areas to be covered are outlined for each quarter. Wooden handplanes will be constructed for both flat and curved work during the course, each participant will design and build one small project. Emphasis on handwork.

**WCO 170 (3) C**  
**Boat Lofting**  
Fundamental course in the development of lofting and fairbody. Covers the relationship of buttocklines, waterlines, sections and diagonals and how to interpret the lines and offsets for fairbody development.

**WCO 180 (1) C**  
**Use & Appl. Hand Router**  
Intro to the types and uses of the hand router. Includes basic operations, selection of router bits and an intro to jigs and templates.

**WCO 181 (2) C**  
**Advanced Router Technique**  
A lecture/demo class with a hands on opportunity for students to construct specialty jigs and templates for the hand router. This class will explore and explain the many uses and applications that the student might be aware of. Prereq: Use & application of the hand router or by permission of the instructor.

**WCO 197 (1-15) C**  
**Work Experience: Wood Construction**  
Earn work experience credit in the wood construction field. Prereq: Permission.

**WCO 299 (1-18) C**  
**Special Project/Boatbuilding**  
Special Projects in Boatbuilding

**World Languages**  
*See Languages & Literature, page 318.*
Seattle College District VI Administration

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The Seattle College District is governed by a five-member Board of Trustees appointed by the governor of the state of Washington for sequential five-year terms. Current members serving on the Board are:

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  - Organizational Management Certificate, Harvard Business School

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M.B.A., Harvard University
B.S., Rensselaer Polytechnic Institute

SHERIDAN, COLLEEN M.
Biology
B.S., University of California at Berkeley
Ph.D., Stanford School of Medicine

SHTERN, YULIYA B.
English Second Language
B.A., M.A., Russian State University
for Humanities, Moscow

SIMUNOVIC, ZAN
Watch Technology
Training in Neuchatel Switzerland
Watchmakers of Switzerland Training
and Education Program (WOSTEP)
North Seattle College
Rolex Scholarship Award for best
pivot gauge
American Watchmakers-Clockmakers
Institute (AWCI) Scholarship Award
for best overall performance

SIMMONS, STEPHEN H.
Architectural Engineering Drafting
B.A., Howard University
Vocational Education Certificate,
Central Washington University

SMITH, JOSEPH
Accounting
B.A., M.B.A., University of Washington
C.P.A., Virginia Board of Accountancy
C.M.A., Institute of Management
Accountants

SOLOMON, STEPHANIE R.
Intensive English Program
B.S., University of Texas
M.Ed., City University
STAGER, JOHN C.
Computer Science
B.A., University of Redlands
Ph.D., Claremont Graduate University

STAPLETON, SARA L.
English as a Second Language & I-BEST Program
B.A., University of Michigan
M.Ed., TESOL, Seattle University

STEFFANCIN, MICHAEL
Physics
B.S., Georgia Tech
M.S., University of Central Florida

STILSON, TERRI A.
Biology
B.S., Florida State University
M.S., University of Florida

STUHLGREWER, KAREN L.
Gender & Women Studies
B.A., Ithaca College
M.A., University of Washington

TENENBAUM, MOLLY B.
English
B.A., Sonoma State University
B.A., M.F.A., University of Washington

THOMPSON, CARLA
Coop Work Experience/Internships
B.A., The Evergreen State College
Teacher Certification, Western Washington University
M.Ed., Instructional Design, Western Governor's University

THORSTENSEN, HOANG-UYEN T.
Pharmacy Technician (AHI)
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Certificate, Pharmacy Technician, North Seattle Community College
Professional Technical Teaching Certificate

TODINO, HONORIO S.
International Business
B.S., University of Philippines
M.B.A., University of Virginia
Ph.D., University of Western Ontario

TUINSTRA, SHERRY L.
English Second Language
M.A., Seattle Pacific University

VILLAR, ANA D.
Library—Math & Sciences, Application Development
B.A., University of Washington
M.L.I.S., University of Washington

VISHNYALCOVA, OLGA
Philosophy
B.A., M.S., Ph.D., Moscow State University

WANG, JIN
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B.S., SuZhou University China
M.S., Southern Methodist University at Dallas

WARD, JEAN L.
Parent Education
B.A., University of Washington
M.S.W., University of California, Berkeley

WALKEMEYER, ALICE
Intensive English Program
B.A., Mercer University, Macon, GA
M.S., University of Southern Mississippi, Hattiesburg, MS

WEBER, MARK T.
HVAC
M.A., University of Phoenix
S-B-A Member Certificate, ASHRAE

WHITTIER, NANCY E.
Nursing
A.A.S., R.N., Commonwealth College
Diploma of Nursing, Sentara Norfolk General Hospital School of Professional Nursing
B.S.N., Virginia Commonwealth University
M.N., University of Washington, Bothell

WILLIAMS, BETTY S.
Parent Ed
B.A., Vanderbilt University
M.S.W., University of Washington
Professional Technical Teaching Certificate

WILSON, JAMES R.
English
B.A., Washington State University
M.F.A., Wichita State University

WILSON, SAMUEL
Math
B.S., Western Washington University
M.S., University of Washington

WOODS, RONALD
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M.S., Georgetown University

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B.A., Jilin University, China
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Certificates in Teaching Japanese as a Foreign Language, Japanese Ministry of Education; and the National Language Research Institute

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B.A., University of Washington
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Certified Trainer, Driver Training School Instructor, DFS ID Driving School of Seattle

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B.A., University of Washington
M.A., University of Tsukuba

ZHANG, ZHAOLOGY
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B.A., Beijing Normal University
M.A., University of Washington

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B.A., Beijing Normal University
M.A., University of Washington

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A.A.S., Seattle Central Community College

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Chief Data and Strategy Officer
B.S., M.P.A., Eastern Washington University

KATHLEEN KWILINSKI
Executive Director
B.A., Seattle University + Course work in Master’s in Counseling

LINDA MANNING
Director, Human Resources
A.A., Highline Community College
B.A., Evergreen State University

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B.S., University of Ohio
B.A., Idaho State University

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B.A., University of Montana
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B.A., Wesleyan University

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B.A., Central Washington University

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B.A., University of Texas
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B.A., Boston College
M.A., St. Louis University

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A.A., South Seattle Community College

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B.S., University of Washington

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Director, Business Operations and Information Technology
B.S., M.S., University of La Verne

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ROBERT SULLIVAN
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B.S., Villanova University
M.S., Antioch University

ANDREW SAWENSEN
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B.S., M.B.A., University Illinois

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B.A., San Jose University
M.Ed., Western Washington University

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B.S., Georgetown University School of Foreign Service
M.S., Vermont Law School
J.D., University of San Diego School of Law

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M.Ed., University of South Dakota

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B.A., Western Washington University

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B.A., Pacific Lutheran University
M.A., Western Washington University

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B.A., Los Angeles Baptist College
M.Div., Northwest Baptist Seminary

VERONICA WADE
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B.A., University of Notre Dame
M.P.A., Seattle University
STUDENT SERVICES

DEBORAH PARK WHITE
Director of Worksource Career Services
B.A., University of Minnesota
M.Ed., Seattle University

MARY JO WHITE
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B.A., Western Washington University
M.L.S., Ph.D., University of Washington

SOUTH
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Talent Search & Upward Bound
A.A.S., Everett Community College
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Assistant Director, Advising and Running Start
B.A., University of Puget Sound
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C.R.C., Certified Rehabilitation Counselor

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Manager, Early Childhood Program
B.A., Washington State University

THE FACULTY

ALAVI, ZAHRA
ESL
B.A., University of California;
M.A. TESOL, Columbia Teachers College
Certificate in Teaching of Composition/
Post-Secondary Reading, San Francisco
Certificate in Diversity and Equity Training,
New York City Dept. of Education

ALI, ABOUBAKER
ESL
B.S., State University of New York

BAKER, CORINNE
Business & Office Occupations
B.A., M.A., Brigham University

AMARATUNGE, ANTON
Aviation Maintenance Technology
A.A.S., South Seattle Community College
B.S., Embry-Riddle Aeronautical University

ANDERSEN, HOWARD
Automotive Technology
A.A.S., Chemeketa Community College
ASE Master Certified Automotive
and Heavy Duty
ASE Undercar, Alternative Fuels
and Advanced Drivability Specialist
Professional Technical Teaching Certificate

ANGEL, LARRY
Economics
B.S., California Polytechnic State University
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Ph.D., University of Washington

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Chemistry/Undergraduate Research
B.A., B.S., University of Utah
M.S., University of Washington

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Biology
B.A., M.A., California Polytechnic
State University
Certificate, Decision Making for
Climate Change

AZPITARTE, MARIA
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R.N., B.S.N., Seattle University
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Professional Technical Teaching Certificate

BAKER, RICK
Welding

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ESL
B.A., Augustana College
M.Ed., Western Washington University

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A.A.S., Delaware County Community College
B.S., West Chester University
M.Ed., Gratz College
Ed.D., Wilmington University

BELLOWS-ROCHFORT, HALIMA
ESL
B.S., New York University
M.A., University of Exeter
M.S., San Francisco State University

BENNETT, DAVID
Aviation
A.A.S., South Seattle Community College
B.A., B.S., Washington State University

BENTLEY, JAMES
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A.A.S., South Seattle Community College

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Wine Technology

BRAUBURGER, ANALEA
Psychology & Spanish
B.S., Arizona State University
M.S., Pennsylvania State University

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BRUNETTE, KATHRYN  
International Programs

BURTON, GILA  
Workforce Development

BUSCHHOFF, JAMES  
ESL  
B.A., State University of New York  
at Fredonia

BUSH, DANIEL  
History  
B.A., M.A., Ph.D., University of Washington

CARLE, CAITLIN M.  
Academic Transfer  
B.S., University of Missouri  
M.A., Western Washington University

CHINN, DORRIENNE  
ESL  
B.S., University of Washington  
M.Ed., Seattle University

CLAPPER, KIRK (DOUG)  
Automotive Technology  
Northshore Vocation School  
ASE Certification

COLLINS, DOUGLAS  
ESL  
B.A., University of Florida  
M.A., University of Washington

COATES-WHITE, STEPHEN J.  
Counseling  
B.A., Whitman College  
M.Ed., Seattle University

DAIGNEAULT, REGINA  
Wine Technology  
Diploma Level certified with Wine  
and Spirit Education Trust: Level one  
in the Court of Master Sommeliers  
L’Ecole du Vin de Bordeaux Certification:  
Bordeaux Wine Educator

DANFORTH, BARBARA  
Home & Family Life  
A.A., North Seattle College  
B.A., University of Washington

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English  
B.S., United States Military Academy at  
West Point; U.S. Command and General  
Staff College, Fort Leavenworth  
M.A., University of Pittsburgh

DI FRANCO, JORDAN  
Chemistry

DODD, CYNTIA  
Workforce Development

DORMAN, RYAN  
Math  
B.A., B.S., M.A., University of Washington

DOWNS, RICHARD  
Math  
B.S., University of Minnesota  
M.S., Oregon State University  
M.S., Ph.D., University of Washington  
Registered Mechanical Engineer,  
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ENDSLEY, STEPHANIE  
Chemistry  
B.A., Gustavus Adolphus College  
M.S., University of Washington

FRANCO, MARC  
Biology & Chemistry  
B.S., University of Washington  
Ph.D., University of North Carolina  
Post Doctorate, University of Kiel,  
West Germany

FUJIMOTO, AKEMI  
ESL  
B.A., English, Soka University, Japan  
M.I.T., School for International Training

GANDHAM, RAVI  
Computer Science  
B.S., Nagarjuna University, India  
M.S., University of Georgia

GARCIA, JOSEPH E.  
Workforce Development

GILMAN, HOLLY  
English  
B.A., M.A.T., University of Washington

HARAN, SHARYN  
Business & Office Occupations  
B.A., Northeastern Illinois University  
M.Ed., University of British Columbia

HARDER, MARGO  
ESL  
A.A., Seattle Central Community College  
B.A., University of Washington

HARDY, VICTORIA  
Sustainable Building Technology  
M.S., Aquinas College

HARNESS, JANE  
ABE/GED  
B.A., M.A., Seattle University

HARRIS, CHRISTOPHER  
Pastry & Specialty Baking  
Professional Technical Teaching Certificate,  
Western Culinary Institute

HARRIS-GANE, JOSLIN  
Culinary Arts  
Certificate of Completion, Seattle  
Community Colleges  
A.A.S., North Seattle Community College  
B.A., University of Washington

HERMAN, DAVID  
Professional/Technical

HIRSBERG, WENDI  
Home & Family Life  
B.A., Washington State University

HICKEY, MICHAEL  
English/Creative Writing  
B.A., University of Arizona  
M.F.A., University of Washington

HOLLY, DANICA  
Basic & Transitional Studies  
Ph.D., Comenius University, Czechoslovakia

HOUOT, ROBERT  
Commercial Cooking & Classical Cuisine  
Chef Diploma, Culinary Arts, Geradmer,  
France

HOWARD, DONALD  
Counseling/Mathematics  
B.A., University of Washington  
M.Ed., Seattle University

HUNTLEY, REBECCA  
Home & Family Life  
B.A., Washington State University  
M.A., University of Denver

INGELS, DANIELLE  
Workforce Education

JOHNSON, JUDITH  
ESL  
B.A., University of California  
M.A., Seattle University

JOINER, ANNE  
Intensive English Language Program  
B.A., University of Washington  
M.A., TESOL, Eastern Michigan University

JOHNSON, KENNETH  
Welding

JOHNSON, RUSSELL  
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B.A., University of Washington  
M.A., Lesley University
JONES, RICHARD
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KABELEOVA (GALA), HANA
B.A.S., Hospitality Management
M.A., Ph.D., Charles University

KAPP, JANET
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B.S., University of Arizona
Teaching Certificate, Arizona State University
M.P.H., University of Washington
Registered Dietitian

KINDZIA, BENJAMIN
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M.A., Niagara University

KRULL, DAVID
B.A.S., Hospitality Management
B.A., University of Washington
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KULIK, MIECZYSLAW
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M.S., M. Curie Sklodowska University, Poland

KUWADA, KALI
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B.A., Western Washington University
M.A., Antioch University
M.A., University of Washington
Ph.D., Antioch University

LARSEN, GWENDOLYN (ASTRID)
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B.A., Art Certification, Montana State University
M.A., Antioch University

LEMLEY, JUDITH
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LINDQUIST, MARY
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B.A., M.F.A., University of Minnesota

LLWEYLYN, KIM
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M.Ed., Western Washington University

LOPEZ, LETICIA (TISH)
English
A.A., Ventura Community College
B.A., Claremont McKenna College
M.A., University of Washington

LYMAN, HEIDI
Math
B.S., M.S., University of Washington

LYSAKER, KRISTIN
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M.Ed., Seattle University

MARTINEZ, DANIKA
Career Link

MCCARTHY, REBECCA
Academic Programs
B.F.A., Cornish College of the Arts
M.L.S., Rollins College
Ph.D., Florida Atlantic University

MCCRATH, MICHAEL
Anthropology
B.A., University of Washington
M.A., M.Ed., University of Hawaii

MCKNIGHT, KELLY
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B.A., University of Texas at Austin
M.Ed., Western Washington University

MOSS, JENNIFER
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B.A., Grinnell College
M.F.A., University of Iowa
M.I.T., Seattle University

MURCIA, RUBEN
Biology
B.S., Universidad de Montemorelos
M.S., San Diego State University

NACHMAN, JON
Basic and Transitional Studies
B.A., University of Michigan
M.A., University of Washington

NELSON, RANDALL
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B.A., M.L.S., M.A., University of Washington

NGUYEN, LOC
Professional/Technical
A.S., Northeast Wisconsin Technical Institute
B.A., Saigon University
B.S.M.E., Milwaukee School of Engineering
Professional Technical Teaching Certificate

OEHLSCHLAEGER-BROWNE, JAN
Communication
B.A., University of Washington
M.S., Portland State University

OTHMAN, JIHAD
Political Science & History
C.A., Ibrahimiya College, Jerusalem
A.A., Skagit Valley College
B.A., M.A., Ph.D., University of Washington

PETERSON, ELIZABETH
Psychology
B.A., Colby College
M.A., Ph.D., Kent State University

PETERSON, RICHARD
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PIKUL, JESSICA
Chemistry
B.A., Reed College
Ph.D., University of Washington
Graduate Certificate in Environmental Management

POST, FRANK
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QUINN, DONTÉ
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B.A., Oregon State University

QUILLIAN, SUZANNE
Developmental English
B.A., M.A., Southern Methodist University

RACKL, ANN
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B.A., Carleton College;
M.M.E., University of Montana;
TESOL Certificate, Seattle University

RATHBUN, KATHLEEN
ESL
B.A.Ed., Western Washington University
M.Ed., Lesley University
TESOL Certificate, Seattle University

RATHE, KIM
Academic Transfer
B.A., Seattle University

ROJAS-VALDEZ, VERONICA
Workforce Development

ROMANESCHI, TERESA
Basic & Transitional Studies

RUÍZ, JESÚS
Diesel Mechanics
Certificates in Diesel Mechanics, Mack Trucks
Professional Technical Teaching Certificate
RULLAN-MILLARE, REMEDIOS E.
ESL
B.A., M.A., University of the Philippines
M.A., Ph.D., University of Washington

RUPIK, DOUGLAS
Professional/Technical

SAENZ, ADELA
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SAUER, MARTIN
Mathematics
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SCHIEF, KARL
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M.Ed., Seattle University

SCHMIDT, DIANE
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B.A., University of Puget Sound
M.A., University of Washington

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B.S., Harvey Mudd College
Ph.D., University of Oregon

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M.A., TESOL, Seattle University

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B.S., Washington State University
M.A., Antioch University

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B.S., Michigan State University
State of Washington Landscaper Certificate & Nursery Certificate
Professional Technical Teaching Certificate

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A.A.S., South Seattle Community College
C.E.P.C., American Culinary Federation

SPIZZIRRI, LEO
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M.A., University of California, Santa Cruz
B.S., University of Washington

SPRAFKA COLEMAN, EMILY
Academic Transfer
B.S., Hamline University
M.S., University of Washington

STERN, CAROLYN
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STOVER, ANNETTE
AFT Seattle/ESL
B.A., Iowa State University
K-12 Certification, University of Iowa
Advanced TESOL Certification, Seattle University

STOWERS, ALLEN
Academic Transfer
B.A., M.A., Western Washington University
Occupational Teaching Certificate

STRONGMAN, ELIZABETH
Workforce Education

SU, KARL
Technical Education

SULLIVAN, JOHN
Mathematics
B.S.E.E, Gonzaga University
M.B.A., Seattle University

SUN, YILIN
ESL
Ph.D., University of Toronto, Canada

SUNDE, ESTHER
Library/Distance Learning
B.A., University of Washington
M.A. TESOL, University of California
M.L.S., University of Washington

TALBOT, PAIGE
English
B.A., Lewis & Clark College
M.A., University of Colorado

THOMPSON, MICHAEL
History & Literature
B.A., M.A., Ph.D., Washington State University

TOUOUTOHI, JOHN
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M.A., University of Washington
B.S., Seattle University

TRAN, ASHA
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B.A., Earlham College
M.A., University of Washington

TSUKIJI, DARRELL
Culinary Arts
B.A., University of Washington
M.B.A., City University

USHIMARU, KYLENE (KIM)
Home & Family Life

VU, BAXI
ESL
B.S., M.A., Seattle University

WACHER, AIBIGAIL
Math
B.S., Simon Fraser University
M.S., University of British Columbia
Ph.D., Oxford University

WALSH, TIMOTHY
English
B.A., State University of New York at New Paltz
M.Ed., University of Washington

WEBER, TERRY
Worksource Center

WHITHAM, KATHREIN
English & Humanities
B.A., M.A., Western Washington University

WILKINS, PAMELA
Library/Distance Learning

WILKINSON, JAMES
Anatomy
B.S., University of New Mexico
M.S., University of Washington
B.A., M.S., M.A., Stephen Austin University

WILLIAMS, ARLEEN
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M.Ed., University of Washington
English Language Teaching Certificate, Universidad Nacional Autonoma de Mexico

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B.A., University of Washington
M.A., Seattle University

WINELAND, WENDY
Career Link

WONG, KATHLENE
Workforce Development

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M.B.A., University of Washington
Teaching Certificate, Pacific Lutheran University
YEDLIN, REBECCA
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M.S., Capella University Online Learning

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M.Sc., Ph.D., University of Toronto
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Catalog Request – Communications
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Seattle, WA 98122
## Academic Calendar

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<td><strong>Summer Quarter 2016</strong></td>
<td></td>
</tr>
<tr>
<td>Classes begin</td>
<td>Mon, June 27</td>
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<tr>
<td>Independence Day holiday</td>
<td>Mon, July 4</td>
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<tr>
<td>Quarter ends</td>
<td>Fri, Aug 19</td>
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<tr>
<td><strong>Fall Quarter 2016</strong></td>
<td></td>
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<tr>
<td>Classes begin</td>
<td>Mon, Sept 26</td>
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<tr>
<td>Veterans Day holiday</td>
<td>Fri, Nov 11</td>
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<tr>
<td>Thanksgiving holidays</td>
<td>Thu–Fri, Nov 24–25</td>
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<tr>
<td>Quarter ends</td>
<td>Thu, Dec 15</td>
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<tr>
<td><strong>Winter Quarter 2017</strong></td>
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<tr>
<td>New Year’s holiday</td>
<td>Mon, Jan 2</td>
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<tr>
<td>Classes begin</td>
<td>Tue, Jan 3</td>
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<tr>
<td>Dr. Martin Luther King Jr. holiday</td>
<td>Mon, Jan 16</td>
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<tr>
<td>Presidents Day holiday</td>
<td>Mon, Feb 20</td>
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<tr>
<td>Quarter ends</td>
<td>Wed, Mar 22</td>
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<tr>
<td><strong>Spring Quarter 2017</strong></td>
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<tr>
<td>Classes begin</td>
<td>Mon, Apr 3</td>
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<tr>
<td>Memorial Day holiday</td>
<td>Mon, May 29</td>
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<tr>
<td>Quarter ends</td>
<td>Fri, June 16</td>
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<tr>
<td><strong>Summer Quarter 2017</strong></td>
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<tr>
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<td>Tue, July 4</td>
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<tr>
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<td>Fri, Aug 18</td>
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<td>Classes begin</td>
<td>Mon, Sept 25</td>
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<tr>
<td>Veterans Day holiday</td>
<td>Fri, Nov 10</td>
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<td>Thanksgiving holidays</td>
<td>Thu–Fri, Nov 23–24</td>
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<td><strong>Winter Quarter 2018</strong></td>
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<td>Mon, Jan 1</td>
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<tr>
<td>Classes begin</td>
<td>Tue, Jan 2</td>
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<tr>
<td>Dr. Martin Luther King Jr. holiday</td>
<td>Mon, Jan 15</td>
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<tr>
<td>Presidents Day holiday</td>
<td>Mon, Feb 19</td>
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<td><strong>Spring Quarter 2018</strong></td>
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<td>Classes begin</td>
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<tr>
<td>Memorial Day holiday</td>
<td>Mon, May 28</td>
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<tr>
<td>Quarter ends</td>
<td>Fri, June 15</td>
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</tbody>
</table>

Calendar subject to change; please verify dates with the colleges.
For Seattle Vocational Institute calendar see svi.seattlecolleges.edu/calendar/.

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### Emergency Closures

Closures of classes or offices due to weather or other emergencies will be relayed to major radio and television stations and posted on the website of the Public Schools Emergency Communications System at http://flashalert.net/

(Select colleges & universities, then select your college)

Every effort is also made to provide information on main campus phone lines and websites.

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