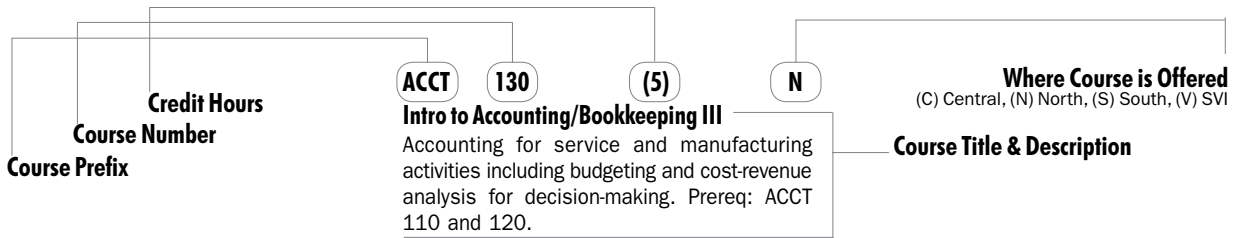


Combined Campus COURSE DESCRIPTIONS



Brief descriptions of courses offered at the three Seattle Community Colleges are listed here. **SVI course listings are on pages 180-185.** Guides on pages 187-189 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



Common Course Numbering (&)

As of summer 2008, 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
<hr/>	
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
<hr/>	
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
<hr/>	
DES	Graphic Design
DHY	Dental Hygiene B.A.S.
DRMA	Drama
<hr/>	
ECED	Early Childhood Education
ECON	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
<hr/>	
FAM	Parent Education/ Senior Adult Education
FRCH	French – see Languages & Literature
FSD	Restaurant Production – see Culinary Arts
<hr/>	
GED	General Education Development
GEOG	Geography
GEOL	Geology
GERM	German – see Languages & Literature
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HDC	Human Development
HDM	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
<hr/>	
IBN	International Trade B.A.S.
ICT	Computing Technology (IT)
IFS	Industrial First Aid
INFO	Library Information Research
INT	Industrial Manufacturing Technology
ISC, ISD, ISP	International & Intercultural Studies
IT	Information Technology
ITAL	Italian – see Languages & Literature
ITC	Information Technology
<hr/>	
JAPN	Japanese – see Languages & Literature
JRN	Journalism
<hr/>	
LAN	Linguistics – see Languages & Literature
LHO	Landscape Horticulture
LIT	Literature – see Languages & Literature
LOG	Logistics
<hr/>	
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

NANO Nanotechnology
 NET Network Technologies
 NME New Media
 NTR Nutrition
 NUR Nursing

OCEA Oceanography
 OPH Opticianry

PEC Physical Education
 PHA Pharmacy Technician
 PHIL Philosophy
 PHO Photography, Commercial
 PHYS Physics
 POLS Political Science
 PSG Psychology (SVI)
 PST Pastry Arts – see Culinary Arts
 PSYC Psychology
 PTE Professional Technical Teacher Education B.A.S.

RCP Respiratory Care
 REL Religion
 RES Real Estate
 RUSS Russian – see Languages & Literature

SBST Sustainable Building Science Technology B.A.S.
 SCI Science
 SEN Senior Adult Education
 SHS Social & Human Services
 SLN Service Learning
 SMG Supervision & Management
 SOC Sociology
 SPAN Spanish – see Languages & Literature
 SPS Audiology – see Biology
 SSC Social Sciences
 SURG Surgical Technology
 SUST Sustainability
 SWF Social Welfare

TDR Drafting: Architectural Engineering Drafting & Engineering Graphics & Design Technology

UGR Undergraduate Research

VIET Vietnamese – see Languages & Literature

WCO Wood Construction
 WEB Web Design & Development – see IT
 WFT Welding Fabrication Technology
 WIN Wine Industry Training
 WMN Women Studies

COURSE to Prefix

Abroad/Study Abroad ABD
 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 – see Languages & Literature 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 see Drafting TDR
 Art ART
 Astronomy ASTR
 Audiology – see Biology 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 and Engineering Graphics & Design Technology TDR
 Drama DRAMA

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 – see Drafting 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	Medical Assistant (SVI)	AHL	Specialty Desserts & Breads – see Culinary Arts	BAK
Heating, A/C & Refrigeration Design	HVC	Medical Assisting	AHM, AMA	Study Abroad	ABD
High School Completion – see Adult Basic Education	HSC	Meteorology	MEY	Supervision & Management	SMG
History	HIST	Multiple Trades Apprentice	MTA (SVI)	Surgical Technology	SURG
Hospitality – see Culinary Arts	HOS	Music	MUSC	Sustainability	SUST
Hospitality Management B.A.S.	HMG			Sustainable Building Science Technology B.A.S.	SBST
Human Development	HDC	Nanotechnology	NANO	Sustainable & Conventional Power & Control Technology	EEL
Humanities	HUM	Network Technologies	NET		
		New Media	NME		
		Nursing	NUR	Undergraduate Research	UGR
		Nutrition	NTR		
Industrial First Aid	IFS	Oceanography	OCEA	Vietnamese – see Languages & Literature	VIET
Industrial Manufacturing Technology	INT	Opticianry	OPH		
Industrial Power & Control Technology – see Sustainable & Conventional Energy & Control Technology	EEL			Watch Technology	HIN
Information – see Library Information Research	INFO	Parent/Senior Adult Education	FAM	Web Design & Development – see IT	WEB
Information Technology	IT, ITC, MIC, NET, WEB	Pastry – see Culinary Arts	PST, BAK	Welding Fabrication Technology	WFT
International Business B.A.S.	IBN	Pharmacy Technician	AHI, PHA	Wine Industry Training	WIN
International Studies	ISC, ISD, ISP	Philosophy	PHIL	Women Studies	WMN
International Trade	IBN	Phlebotomy	AHE	Wood Technology	WCO
Italian – see Languages & Literature	ITAL	Photography, Commercial	PHO		
		Physical Education	PEC		
		Physics	PHYS		
Japanese – see Languages & Literature	JAPN	Political Science	POLS		
Journalism	JRN	Pre-Apprentice Trades (SVI)	MTA		
		Professional Technical Teacher Education	PTE		
		Psychology	PSG (SVI), PSYC		
Landscape Horticulture	LHO	Real Estate	RES		
Languages ARAB, ASL, CHIN, ENGL, ESL, FRCH, GERM, ITAL, JAPN, LAN, RUSS, SPAN, VIET		Religion	REL		
Library Information Research	INFO	Respiratory Care B.A.S.	AHE, CHED, RCP		
Linguistics – see Languages & Literature	LAN	Russian – see Languages & Literature	RUSS		
Literature – see Languages & Literature	LIT				
Logistics	LOG	Science	MSC, SCI		
		Senior Adult Education	FAM, SEN		
Marine Technology	MGO, MTS	Service Learning	SLN		
Material Science – see Science and Engineering	MSC	Social & Human Services	CDS, SHS		
Mathematics	MATH	Social Sciences	SSC, SWF		
Mechanical Engineering	MSC, MET, ENGR	Sociology	SOC		
Technology – see Engineering		Spanish – see Languages & Literature	SPAN		
Medical Administrative Specialist (SVI)	MAS				

COMBINED CAMPUS Course Descriptions

ABROAD/STUDY ABROAD**ABD 150 (5-24) C,N,S**
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 "STDY 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 in advance 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
Teaching Personal & Consumer 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 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 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 or permission (N,S).

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); ACCT 120 or ACCT& 202 or permission (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 Owners

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 251 (5) N
Intermediate Accounting I

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 instructor permission.

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 255 (5) N
Individual Income Tax I

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 & 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 I

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 Preparation II

Further develop individual income tax skills by reviewing the subtitles 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 260 (5) N
Peachtree Accounting

A hands-on approach to learning Peachtree Accounting Software, widely used by service and merchandising businesses and accountants. Utilize various modules to prepare internal and external reports. Prereq: ACCT 110, ACCT& 201 or permission.

ACCT 261 (5) N**Accounting Information 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, Examines accounting internal controls, fundamental database concepts, and flowcharting. Prereq: ACCT 110 or ACCT&201.

ACCT 264 (5) N**Tax Research & Advanced Topics**

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 for Not-For Profit & Governmental Entities**

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 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 270 (5) N**Cost Accounting**

Covers theory of cost 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 Crimes**

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 200, prior accounting course, or permission.

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 (2-5) 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**Special Topics – Accounting**

Seminar on selected topics or activities in accounting. Prereq: Permission.

ACCT 299 (1-5) C**Independent Study – Accounting**

Independent study of selected accounting topics. Prereq: Permission.

ADULT BASIC EDUCATION**ABE 020 (1-15) C,N****Adult Basic Education – Level 2**

Covers reading and writing. Review and apply language skills, correct usage and spelling.

ABE 021 (1-15) C,N**Adult Basic Education – Level 2 Math**

Covers addition, subtraction, multiplication and division of whole numbers.

ABE 022 (1-15) C,N**Adult Basic Education – Level 2A****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**Computer Assisted ABE – Level 2**

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**Adult Basic Education – 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**Adult Basic Education – 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**Adult Basic Education – Level 3****Communications Skills**

Covers reading, writing and communication skills for review of basic grammar, punctuation and spelling. Concentrate on reading comprehension, main idea, vocabulary development, making inferences. Covers single paragraph writing. Prereq: ABE 031 or division placement test (C).

ABE 034 (1-15) 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 résumés, reports and formal letters. Compute percentages, ratios, proportions, simple formulas and interpret graphs and charts.

ABE 040 (1-15) C,N,S
Adult Basic Education – 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
Adult Basic Education – 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
Adult Basic Education – 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
Computer-Assisted ABE – Level 4

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
Basic Skills Support

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 – Level 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,S
Adult Secondary Education ASSET/COMPASS Prep

Preparation to pass exams needed to enter a college program.

ABE 061 (1-15) C
Adult Secondary Education Math Level 6

Preparation to pass the math portion of the COMPASS exams.

ABE 062 (1-15) C
Adult Secondary Education – Level 6 Communications Skills

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
Computer-Assisted ABE – 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
Educational Interview for ABE/GED Students

Helps ABE/GED students at all competency levels identify their current abilities, characteristics, styles and readiness to learn. Intro to campus resources.

HSC 091 (5) C
EDP Skill 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 (5) C
EDP Skill 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 206.

AMT 104 (5) S
Basic Mathematics, Basic Physics, Weight & Balance

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: Permission.

AMT 119 (5) S
Materials & Processes

Identify and select non-destructive testing methods including dye-penetrant, eddy current, ultrasound 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 137 (4) S
Aircraft Non-Metallic 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.

ACM 120 (4) S
Composite Fabrication

Develop skills in print reading, project planning, layout, distortion control, fixturing 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

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, fixturing and other fabrication techniques through assigned and/or personal projects. Prereq: Permission.

ALLIED HEALTH

Includes courses relevant to undergraduate level Emergency Medical Technician (EMT), Medical Assisting, Medical Office Assisting, Medical Transcription, Phlebotomy and Surgical Technician and to Bachelor of Applied Science (B.A.S.) degrees in Allied Health. For additional B.A.S. course listings, look under track titles:

Community Health & Education, page 217

Dental Hygiene, page 225

Healthcare Services & Management, page 244

Respiratory Care, page 306

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.

AHE 101 (8) S
Front Office Medical Assisting Procedures

Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.

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 081 or placement into MATH 084 and permission. Recommended: ENGL& 101.

AHE 104 (9) S
Medical Office Procedures & Document Processing

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.

AHE 105 (10) S
Medical Terminology, Insurance Billing & Coding

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.

AHE 111 (9.5) C
Nursing Assistant

Covers instruction and hands-on experience in basic nursing care skills and supervised clinical training in a long-term care facility. Develop job search skills. Prepare for the State of Washington Nursing Assistant Certified Examination.

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 124 (4) S
Software Applications for Health Care

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 126 (0.5-3) C
Essential Skills in Healthcare

Learn core skills applicable to all health disciplines. Each healthcare program chooses which modules are required.

AHE 127 (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 128 (4) C
Intro to Healthcare Practice

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 129 (1) C
Intro to 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 Coding & Insurance Processing

Intro to diagnosis and procedural coding. Covers basic ICD-9/ICD-10 (International Classification of Diseases) and the CPT (Current Procedural Terminology) coding systems, which are recognized by the insurance industry, the physician and medical office as the standard for billing and reimbursement. Includes documentation, information flow, insurance forms and medical office policies. Coreq: AHE 124.

AHE 131 (8) S
Medical Coding, Insurance, Medi-Soft

Provides skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within company guidelines.

AHE 137 (1) C
Medical Terminology III

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 (3) S
Pharmacology I for Professional Coders

Intro to pharmacology. Includes medication laws, classifications, safety, medication effects and responses, pharmaceutical abbreviations, systems of measurement and safe dosage calculations.

AHE 143 (5) S
Anatomy and Physiology for Coding Professionals

For coding professionals only. Analyze the human body's structure and functions related to diseases, disease process, and coding for diseases and procedures. Covers organization of body and body systems, homeostasis, cell functions, cellular diseases, mutations and abnormal cell behavior. Prereq: AHE 168 or permission.

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
Intermediate ICD-9 and ICD-10 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
Intermediate 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
Pathophysiology I for Professional Coders

Learn basic disease concepts, including mechanisms of disease, neoplasms, inflammation and infection. Study common diseases, disorders, symptoms and injuries by body system, relating these to coding for diagnoses and procedures in healthcare. Prereq: AHE 168 or permission.

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/First Aid

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
Healthcare 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 on completion. Prereq: Permission.

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

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 correspondence course.

AHE 170 (1) S
HIV/Blood-Borne Pathogens

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
Excel for Healthcare Professions

Microsoft Excel 2010 is a spreadsheet program for Health Care Occupations. Learn to manipulate numbers, track and chart medical sales, expenses and medical budgets to help make informed medical business decisions. Use calculations and pre-defined formulas to organize data, crunch statistical information and more.

AHE 179 (5) S
Word for Health Professions

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: operative reports, radiology reports, discharge summaries, H&P reports and others.

AHE 182 (5) S
Records Management for Healthcare Careers

Study the basic alphabetic, numeric, subject and electronic filing principles necessary to manage database filing systems in a health-care setting. Includes hands-on practice in creating and using a database system to create files, tables, forms and queries; enter and manipulate data; and generate reports.

AHE 190 (10) N
Emergency Medical Technician

Provides training in pre-hospital emergency care. Follows Department of Transportation EMT Basic Curriculum, State of Washington law and King County EMS guidelines.

AHE 191 (2-5) N
**Emergency Medical Technician
 Continuing Education**

Provides appropriate continuing education for EMTs to meet the State of Washington's requirements for recertification and upgrading.

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 195 (4) C
Pathophysiology for Health Professions

Overview of human physiological changes which cause or are the result of pathologic processes. Expands knowledge of human anatomy and physiology of the pathophysiological processes in major organ systems of the body. Covers key concepts of homeostasis.

AHE 197, 198, 199 (2-5) C
Work Experience – Allied Health

Allows students to earn work experience credit in Allied Health field. Prereq: Permission.

AHE 202 (1) C
Respiratory Care Orientation

Intro to the Respiratory Care Program. Covers curriculum, policy, clinical procedures, professional outlook and study and library skills.

AHE 209 (2) C
Intro to 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
Respiratory Care Clinical Assessment

Study the concepts and principles by which disease alters the normal function of the cardiopulmonary system. Analyze clinical data and synthesize patient case data into a formal assessment, emphasizing cardiopulmonary assessment.

AHE 215 (2) C
Basic Respiratory Care Pharmacology

Intro to principles of pharmacology and the medications used universally 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.

AHE 217 (5) C
Cardiopulmonary Anatomy & Physiology

Investigate the structure, function and interdependence of the respiratory and cardiovascular systems and the physiology of respiration. Learn basic bedside and laboratory pulmonary function testing.

AHE 218 (4) C
Basic Therapeutic Approaches

Intro to procedures used to assess and treat common respiratory diseases. Emphasizes safe and effective application of medical gas therapy and devices, aerosol and humidity therapy, hyperinflation therapy, and airway clearance techniques. Includes a review of gas physics.

AHE 219 (1) C
Basic Therapeutic Approaches Equipment and Techniques

Practice theory from RCP 218 using models, simulation and laboratory partners. Focuses on assessment, documentation, communication, medical gas and aerosol therapy, airway clearance and hyperinflation therapies.

AHE 232 (5) N
Intro to 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 to 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 and Network Security

Review HIPAA Regulations and Guidelines, basic IT network security, the Electronic Medical Record and intro to health informatics.

AHE 241 (3) S
Pharmacology 2 for Professional Coders

Continue learning medication laws, classifications, safety and medication processing by the body. Learn more medication effects and responses, abbreviations, systems of measurement and safe dosage calculations. Stresses the importance of accuracy in recording, transcribing and reporting medication information. Prereq: AHE 141.

AHE 242 (2) N
Basic Blood Collection Techniques

Theory and laboratory practice in supervised blood collection to meet requirements for job entry as a phlebotomist (blood drawer). Prereq: Take or placement into ENGL& 101.

AHE 244 (5) S
Advanced Electronic Health Records (EHR) & Ethics

Covers advanced functions and features of Electronic Health Records (EHR); includes laws and ethics and Electronic Data Interchange. Overview of health information systems, clinic administration, patient charts, office visits. Includes clinical tools, customizing templates, tests, procedures and diagnosis codes, productivity and utilities. Prereq: AHE 124, 130.

AHE 246 (5) S
Advanced ICD and CPT Coding

Covers advanced medical coding for medical records, hospital coding, medical situations, and clinical reports. Prereq: AHE 124, 130, 146, 147, 168.

AHE 296 (2) C
Clinical Seminar

Seminar format to share and compare clinical experiences, hold evaluative critiques and obtain additional instructional support in special areas of medical assisting.

AHE 299 (1-3) C
Allied Health Seminar

Seminar format to address current trends and issues in allied health occupations.

AHE 320 (5) C
Research Methods

Learn the concepts needed for understanding and evaluating validity of research studies. Includes study design, randomization, control of bias, variability, design of data collection methods, ethical issues, and human subjects review. ABS 320 may be substituted for AHE 320.

AHE 330 (5) C**Information Literacy**

Intro to the organization, retrieval, and evaluation of electronic and print information. Overview of college library systems, networked information systems, traditional scholarly resources, specialized allied health resources, and the concepts underlying the research process. ABS 330 may be substituted for AHE 330.

AHE 401 (5) C**Principles of Research in Allied Health**

Covers general principles of research design and methodology with emphasis on applications for allied health practice.

AMERICAN ETHNIC STUDIES**AME 150 (5) C,N,S****America's Ethnic 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 of the 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 (2-5) 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 or "change agent," and the personal 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, hetero-sexism, able-ism, class-ism, religious oppression and aspects of internalized oppression.

AMERICAN SIGN LANGUAGE

See Languages & Literature, page 262.

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,S**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,S**Human Variation**

Covers past and present evolutionary forces contributing to variations in human populations. Investigates the biological and social concepts of race.

ANTH 130 (3-5) C,N,S**World Cultures**

Exploration of ethnic traditions of the world, the concepts of worldview and the way people think in various cultures, using an ecological approach. Employs cultural relativism to examine traditional religious practices and educational systems in a comparative framework.

ANTH 135 (3-5) C**Intro to 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,S**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,S**Archaeology**

Intro to archaeology and the interpretation of archaeological remains, including theory and methods of archaeological research, data collection and analysis.

ANTH& 205 (5) C,N,S**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& 210 (5) C,N,S**Indians of North America**

Ethnographic survey of North American native cultures. Examination of historical and contemporary problems regarding legislation, treaties, reservations, fishing rights and education.

ANTH 211 (5) S**Peoples of Mainland Southeast Asia**

History and contemporary issues of the nations of Burma, Cambodia, Laos, Thailand and Vietnam and the tribal people who live there.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

ANTH 212 (3) N
Methods of East African Archaeological Research

Intro to paleo-anthropological research in East Africa in “digging up” hominid 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& 216 (5) C,N,S
Northwest Coast Indians

Ethnographic survey of the Indians of Alaska, British Columbia, Washington, Oregon and Western Idaho. Examines prehistoric and contemporary cultures and controversial legislation regarding fishing, water rights and treaties.

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,S
Cultures of the Middle East

Multidisciplinary intro to Middle Eastern cultures including ecological, 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.

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 in Anthropology

Independent study or fieldwork in anthropology. Periodic meetings with instructor. Prereq: Permission.

ANTH 299 (3-5) C,N,S
Special Problems in 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 AD&D who have little or no sewing or patternmaking experience. Intro to sewing terms, commercial and production pattern development, layout and cutting techniques, industrial sewing machine operation, and professional construction techniques for basic garments and samples.

APPRL 098 (2) C
AD&D Skill Development 2

For students preparing to enroll in AD&D. Intermediate beginners update their sewing machine handling and patternmaking skills. Intro to more complex sewing techniques and construction of sample garments using industrial sewing and pressing equipment. Includes pattern drafting and labeling for production. Prereq: APPRL 096 or prior sewing experience with understanding of patterns, grainline and layout.

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. Prereq: APPRL 098 or permission through successful completion of a skill test.

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 – Professional 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 – Professional Techniques

Presents techniques and methods using factory processes to construct garments for manufacturing. Blends skills in pattern design for target markets and construction for mass production. Continuation of technical specification development and industrial equipment use. Prereq: APPRL 102.

APPRL 104 (2) C
Alterations & Fitting

Covers professional ready-to-wear garment alteration techniques, evaluation methods, and industry fitting standards. Includes business management practices, record keeping, output efficiency and client relations. Prereq: APPRL 101 and 102.

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 – Design by Flat Patternmaking

Continues development of flat pattern and draping techniques from APPRL 111 and 112. Use fitting methods, production pattern blocks and pattern modifications to create more complicated garment designs. Prereq: 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.

APPRL 131 (3) C
Business Practices in Fashion

Examines aspects of conducting business in fashion 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.

APPRL 142 (2) C
Design 2 – Fabric Science & Textiles

Analyze how fibers, yarns, fabric structure and finish affect fabric characteristics. Studies include textile history, independent research and visual presentation. Prereqs: APPRL 130 & 151.

APPRL 143 (2) C
Design 3 – Color & Palettes

Investigates color design trends and application in the apparel market. Explore hues, values and saturation and basic color theory. Prereqs: APPRL 142 & 152.

APPRL 151 (3) C
Computer Applications for 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.

APPRL 152 (3) C
Computer Applications for 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 (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

Construction methods for sportswear and outerwear construction techniques used in the garment industry. Produce more complex and advanced garments made from patterns developed in APPRL 212. Prereqs: APPRL 201 & 211. Coreq: APPRL 212.

APPRL 211 (4) C
Pattern Design for Ready-To-Wear

Presents advanced pattern design for ready-to-wear and tailored garments. Employ a variety of methods to produce patterns from blocks, measurements, magazine tears and line drawings. Coordinates with APPRL 201 to construct pattern designs. Prereqs: APPRL 103 & 113.

APPRL 212 (4) C
Pattern Design for 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

Learn to grade patterns up to large sizes and down to small sizes according to certain specifications and measurements, using the grid and shift method.

APPRL 222 (4) C
Computerized 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

Produce a professional-quality portfolio and resume. Survey of job search and interviewing strategies. Prereqs: APPRL 197, 202, 212, 222, 242.

APPRL 241 (2) C
Design 4 – Print & Pattern

Development of surface designs for fabrics and garment silhouettes. Focus on design methodology, textile dye and print technology, and apparel industry practices. Prereq: APPRL 143

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. Explores 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.

**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
Discrete Math

Overview of tools and process that support a software product's life cycle. Includes life cycle management, team member roles, customers, task timeline and resources, development paradigms such as waterfall and agile, quality documentation, source code management, testing and debugging, legal and ethical issues, licensing and support agreements.

AD 315 (5) N
Discrete Math for Computer Science

Understand and use the abstract discrete structures that are the backbones of computer science. Intro to logic, proofs, sets, relations, functions, counting and probability applications in computer science.

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 Structures and 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

Presents strategies for effective communication in professional settings, with emphasis on technology environment. Practice and apply communication styles in formal, informal, in-person and virtual situations and learn effective development team collaboration. Covers ethical and legal issues including copyright fair use and intellectual property.

AD 340 (5) N
Mobile Application Development

Intro to mobile application development, native and web applications. Incorporates REST-based services and integrates location-aware third-party APIs and mapping tools to build device agnostic applications. Explores legal and ethical issues of mobile environment, security, privacy, benefits and unintended consequence. Prereq: AD 320.

AD 350 (5) N
Relational Database Technology

Covers intermediate programming in a relational database. Intro to non-relational databases as used in Cloud Computing and Big Data. RDMS topics include stored procedures, triggers, indexing and abstraction techniques, query construct efficiency. Compare and contrast RDMS to noSQL databases: uses, terminology, indexing, storage, compute consumption, ROI, reliability.

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 Applications 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 a Service

Intro to fundamentals of cloud computing. Focus on software as a service (SaaS) and Infrastructure as a service (IaaS). Learn tools and strategies to building web applications based on cloud services, integrate third-party APIs and big data tools such as predictive analytics. Explore legal and ethical issues including security, integrity, privacy and continuity of service. Prereqs: AD 320 & 325.

AD 430 (5) N
Mobile Application Practicum

Work in teams to create a mobile 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 implementation, and working in a diverse and collaborative environment. Prereqs: AD 310 & 340.

AD 440 (5) N
Cloud Computing Practicum

Work in teams to create a cloud-hosted application. Store and share code via a 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 cloud computing and working in a diverse and collaborative environment. Prereqs: AD 310 & 420.

AD 490 (5) N
Capstone/Internship

Provides practical work experience and employment contacts by integrating academic studies with actual on-the-job training situations. Orientation to internships is required prior to registration. Produce a major project that responds to a client problem or request. Work in a team or as an individual intern/extern. Select and work closely with industry mentors. Emphasis on research, accuracy, technology skills, timeliness, teamwork, professional ethics, quality, client/customer satisfaction and usability. 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 Technical Writing & Applied Technology

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 BAS degree. Prereqs: ENGL& 101, 102 and MIC 101.

ABS 310 (5) C Professionalism & Ethical Practice

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 Information Literacy & 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.

ABS 350 (5) C Quantitative Principles in Research & Assessment

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 (5) C Independent Study & Research

Pursue academic and professional areas of interest and possible employment related to applied behavioral science.

ABS 410 (5) C Economic & Political Systems: Implications for Public Service

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. Prereqs: Microeconomics suggested.

ABS 415 (5) C Cross-Cultural Competency in Human Services

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 Multiculturalism and Artistic Expression: Our Jazz Heritage

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 requirements 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 requirements for supervised field practice required for licensure and professional accreditation in many professional specialties.

ABS 499 (5) C Independent Study & Research

Pursue academic and professional areas of interest and possible employment related to applied behavioral science.

ART

ART& 100 (5) C,N,S Art Appreciation

Historical backgrounds and design fundamentals that have affected art using slide lectures, reading and practical studio applications.

ART 101 (5) C,N,S Design

Studio series in the fundamentals of two-dimensional art with problems based on line, space, texture, shape and color theories. Includes practical applications of theories to design. Required for art majors.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

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 105 (5) C,S
Survey of Modern Art

Understanding today's cultural environment and viewpoint by using art and architecture to analyze cultural philosophies of the past that affect today's aesthetic values.

ART 110 (5) N
Visualizing Science & Technology

Hands-on course to increase ability to represent complex information using the principles and elements of the visual arts. Explore modes of illustration and presentation from pencil to pixel and from paper to PowerPoint.

ART 111 (5) N,S
Drawing

Study of line, value, space, perspective and composition through the use of charcoal, pencil, pen and brush.

ART 112 (5) N,S
Drawing

Drawing from the human figure in black and white media. Focus on composition. Emphasis on proportion and shading in short sketches as well as long poses. Prereq: ART 111 or permission.

ART 113 (5) N,S
Drawing

Continuation of ART 112. Drawing from human figures in black, white and color media. Emphasis on expression and composition. Prereq: ART 112 or permission.

ART 114 (5) C,N,S
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 mega-pixels, Auto, Auto-P, Aperture Priority, Shutter Priority, and full manual Exposure Modes.

ART 115 (5) C,N,S
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,S
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,N
The Painterly Print: Monotype & Monoprint

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 163 (3) S
Intro to Still Photography

Covers basic photographic techniques using 35mm photographic equipment. Includes camera, exposure, lighting, composition, black and white darkroom work and digital imaging.

ART 166 (5) S
Video Art I

Focuses on the art of digital video editing and shooting using Adobe Premiere. Explore in-depth digital video editing, effects, transitions, graphics animation, sound and music integration, selecting format, basic DVD authoring and distribution strategies and options. Create a finished digital video film. Also offered as CTN 166. Recommended: ART 210.

ART 170 (3-5) 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

Beginning painting in oil or synthetic media using still life. Emphasis on basics: composition, value studies, color mixing, canvas preparation, styles and techniques. Recommended: Drawing background.

ART 202 (5) C,N,S
Painting

Further development of color and composition. Individual instruction. Prereq: ART 201 or permission.

ART 203 (5) C,N,S
Painting

Further studies in color, composition and subject matter. 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,N,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,N,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,N,S**Water Color Painting**

Individual water color projects in series. Prereq: ART 206 or permission.

ART 209 (5) S**Art on the Touchscreen Tablet**

Explore the principles and elements of art – line, value, space, composition and color– through the use of the iPad. Create art on the iPad and explore visual literacy issues.

ART 210 (5) N,S**Computer Art**

First of 2 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**Advanced Computer Art**

Continuation of ART 210. Explores creative, technical and aesthetic concepts and problems for comprehensive fine art and commercial projects. Prereq: ART 210.

ART 215 (5) C,S**Advanced Computer Art II**

Continuation of ART 214. Advanced projects and intro to advanced programs. Prereq: ART 214.

ART 216 (5) S**Multimedia Art I**

Covers the key artistic concepts and practical skills in multimedia design and production: linear and nonlinear storytelling and the role of interactivity from aesthetic and technical viewpoints. Includes a survey of industry-standard multimedia production tools. Build several interactive projects using Macromedia Flash. Also offered as CTN 164. Recommended: ART 210.

ART 217 (5) S**Multimedia Art II**

Expand multimedia design and scripting skills. Technical focus on Macromedia Flash development using complex animation, advanced design and action scripting for increased interactivity. Covers event/event handler logic, creating variables, setting values and using Flash to create animation and effects for video. Also offered as CTN 205. Prereq: ART 216 or CTN 164.

ART 221 (5) 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**Ceramic Art**

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**Ceramic Art**

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 231 (5) N**3D Computer Modeling & Realization**

Intro to computer based 3D modeling. This medium provides a creative environment and imposes a new framework for creating in 3-dimensional space. Prereq: MATH 098.

ART 232 (5) N**Advanced 3D Computer Modeling & Realization**

Increase skills using the 3D modeling system by delving more deeply into the capabilities and options of each command. Learn animation through deeper understanding of camera lenses and light sources along with motion control of objects, cameras and lights. Learn to design for and print with a 3D printer. Prereq: ART 231.

ART 251 (5) C,S**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, S).

ART 252 (5) C,S**Art History**

Continuation of ART 251 with emphasis on the Medieval period through the Renaissance focusing on European and Middle Eastern art.

ART 253 (5) C,S**Art History**

Continuation of ART 252 with emphasis on the 17th century Baroque through 20th century Western/Modern Art.

ART 254 (3-5) C,S**Survey of the Art of the Pacific Northwest**

Focus on visual arts of the Pacific Northwest, from early coastal tribal art to the present day. Covers architecture, sculpture, painting and analysis of contemporary art in public places.

ART 255 (5) C,N,S**History of the Art of Asia**

Study of the paintings, drawings, sculpture, architecture and crafts of India, China, Japan and other countries of Southeast Asia. Study of influences brought about through invasion, assimilation and transformation of Hinduism, Buddhism, Daoism and Confucianism as reflected in the arts, history and culture.

ART 281 (5) N**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 282 (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 283 (5) N
Intro to Alloying & Jewelry Casting

Explore the alloying and casting processes of Jewelry Design. Learn lost wax casting and rubber molding processes. Prereq: ART 282 or permission.

ART 284 (5) N
Bench Techniques & Practices in Metal

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 285 (4) N
Metal Techniques for Small Scale Sculpture

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 290 (5) N
The Art Business

Fundamentals of the business aspects of art, including designing and packaging the portfolio for A.F.A./C.F.A. degrees, photographing artwork, building a résumé, marketing, copyrights, contracts and other essential business practices. Recommended: At least two college-level art courses.

ART 291 (2) C,N
Art Seminar

Readings and discussion in the philosophy and ideas of artists and art movements with criticism and analysis of works of art.

ART 298 (3) C,S
Special Problems in Film Media

Advanced film production involves scripting, budgeting and scheduling. Emphasis on information film production, interior and studio lighting for color, sync-sound recording and editing techniques.

ART 299 (1-5) C,N,S
Special Problems in Art

Individual or seminar instruction. May be repeated to earn a maximum of 9 credits. Prereq: Second year art major, level of ability and permission.

ASTRONOMY**ASTR& 100 (5) C,N,S**
Survey of Astronomy

Emphasis on astronomic concepts fundamental to an understanding of the solar system, stars, galaxies and origin and history of the universe.

ASTR 102 (5) N
Space & Space Travel

Intro to space exploration, both robotic and human, and the engineering of space-faring vehicles to withstand space hazards. Prereq: Placement or completion of MATH 098. ENGL& 101 strongly recommended.

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) C,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 permission. Recommended: test into ENGL& 101 or higher.

ASTR& 115 (5) N
Stars Galaxies & Cosmology

Learn the methods and goals of scientific inquiry through 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. Lab. Prereq: MATH 098 with a 2.0 or higher.

ASTR 201 (5) C,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.

**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 Automotive Collision Technology

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 & Environmental Practices

Covers various environmental and other regulations in an automotive refinishing 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 & 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 Replacement & 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**Understanding Automotive 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**Preparing the Surface for Refinishing**

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**Preparing the Equipment, Paint & Refinishing Materials**

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.

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 & Replacement**

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**Restoring 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-scaler, and apply single stage paint, base, clear-coat 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, Causes & Cures**

Covers identifying paint film defects, causes and corrective methods, surface defects and corrective methods of repair. Prereq: ABR 131.

ABR 197 (1-5) S**Internship I**

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 299 (1-12) S**Special Topics in Automotive Collision Repair**

A special topics course for an individual or group in Automotive Collision Repair.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

AUTOMOTIVE TECHNOLOGY

NOTE: Courses include instruction in safety, environmental awareness, human relations and work ethics.

MVM 100 (4) S

Intro to Automotive Technology I

Includes safety and MSDS; tools and equipment; looking for information; repair orders, manuals, parts and time estimating guides; component identification, theory, fasteners, function and construction; diagnosis and service. Prereq: Basic math skills, 9th grade reading level or permission.

MVM 102 (4) S

Intro to Automotive Technology II

Includes vehicle inspection; lube, oil and filter; cooling system, belt, hose; heating and air conditioning; driveshaft; manual and automatic transmission; servicing vehicles by performing. Covers function, construction, diagnosis and service. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

MVM 298 (VARIES) S

Special Topics in Motor Vehicle Maintenance

Individual or group study on topics in motor vehicle maintenance.

AUT 100 (4) S

Intro to Electricity

Covers safety in the shop, basics of electricity from electron theory to Ohm's law. Also covers use of multimeters on the three types of circuits. Prereq: MVM 100 or equivalent

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 110 (3) S

Clutches, Drivelines & Half Shafts

Covers basic principles involving clutches, drivelines and half shafts, including function and construction of each component, diagnosis and service procedures. Prereq: MVM 100, basic math skills, at least 9th grade reading level or permission.

AUT 112 (3) S

Manual Transaxles & Clutches

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, Transfer Cases & Drive Axles

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, basic math skills, at least 9th grade reading level or permission.

AUT 118 (4) S

Automatic 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 Automatic Transmission 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

Basic Brake Systems

Intro to automotive brake systems. Covers operation, diagnosis and service of master cylinders, wheel cylinders, hydraulic valves, brake hoses and lines, drum brakes and parking 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 disc brakes, 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 Diagnosis/
Remove & Replace**

Covers diagnosing engines for compression. Prereq: MVM 100 or permission.

AUT 130 (8) S
Automotive Engine Rebuild

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 132 (3) S
Automotive Welding

Covers safety in welding and proficiency in oxy-acetylene welding, oxy-acetylene brazing, oxy-acetylene cutting and MIG welding. Learn which type of welding process is used when joining various types of metals in different situations. Prereq: MVM 100 and 102 or permission.

AUT 134 (3) S
Intro 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 136 (4) S
Minor Tune-Up Procedures

Covers shop safety, basic mechanical engines, Ohm's law, physics laws that apply to the automobile, battery starting and charging systems as they apply to engine runability. Includes using and maintaining emission-related equipment in the shop. Prereq: MVM 100, AUT 100, 102, 104 and 106 or equivalent, or permission.

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 Controls & Diagnostic Equipment

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 (2-18) S
Special Topics – Automotive

Special topics for individual or group study. Prereq: Permission.

**AVIATION MAINTENANCE
TECHNOLOGY**

Prerequisites for this program include Compass or ESL/Compass Test Scores: 65 in Writing; 75 in Reading (and Grammar for ESL); 54 pre-algebra in Math; and 75 in Listening for ESL.

Also see Aerospace Composite Materials, page 192.

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: High School Completion/GED or equivalent.

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 (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 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 214 (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 (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 298 (VARIES) S
Special Topics: Aviation Maintenance

Overview of various parts of the aircraft and their operation, including methods of corrosion detection, removal, treatment and correct painting techniques. Prereq: Permission.

AMT 299 (VARIES) S
Special Topics: Maintenance for Aviation Professionals

Basic aircraft maintenance on a variety of aircraft systems and components by arrangement.

BAKING

See *Culinary Arts - Central*, page 220.

BIOLOGY**SPS 201 (5) C**
Intro to Audiology

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.

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 and ENGL& 101 (C).

BIOL 102 (5) C,N,S
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 for Food Service Professionals

Identification of the 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 106 (5) C
Biotechnology & Society

Intro for non-science majors to biotechnology and its impact on society. Includes cloning, DNA, antibodies, gene therapy, plant biotechnology, the human genome project, DNA fingerprinting, genetic testing, diverse products made through biotechnology and the ethical, legal and social implications of this technology. Prereq: Eligibility for MATH 084 and ENGL& 101 (C).

BIOL 107 (5) C,N,S
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 and ENGL& 101 (C).

BIOL 109 (2) C
Biology of Sexually 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,S
Marine Biology

Emphasis on natural history, ecology, distribution, habitat, adaptation, interrelationships of local species. Field trips and lab included. Prereq: High school biology or permission, eligibility for MATH 084 and ENGL& 101 (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 and ENGL& 101 (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) S
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 084 and ENGL& 101 (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 and ENGL& 101.

BIOL 166 (5) C,N,S
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 198 (1-5) 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, 212, 213 (5 EA) C,N,S
Majors Biology (Cellular, Animal, Plants)

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. Lab included. Prereq: ENGL& 101 and CHEM& 160.

BIOL& 211 (5) C,N,S
Majors Cellular

Initial course of series, focusing on cellular biology: cell structure, organization, metabolism, energetics, the gene and chromosomal, microbial and molecular genetics. Prereq: ENGL& 101 and CHEM& 160.

BIOL& 212 (5) C,N,S
Majors Animal

Continuation of series. Emphasis on the biological diversity of animals, general principles of animal physiology, growth and development. Prereq: BIOL& 211. One quarter college chemistry (pref. inorganic series) or permission (C).

BIOL& 213 (5) C,N,S
Majors Plant

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. Prereq: BIOL& 211 with 2.0 or better (N,C). BIOL& 212 with 2.0 or better (S)

BIOL 228 (4) C
Molecular Cellular Methods 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 229 (4) C
Molecular Cellular Methods 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 239 (5) C
Virology – Emerging Viruses & Public Health

Intro to virology, with special emphasis on emerging pathogens. Covers biological and relevant public health themes, explaining the science in the context of severe health crises of our times and their challenges. Prereq: Eligible for ENGL& 101 and MATH 084, BIOL 160 or permission.

BIOL& 241 (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. Prereq: BIOL& 160 or CHEM& 121.

BIOL& 242 (5) C,N,S
Human Anatomy & Physiology 2

Continuation of BIOL& 241. Lab. Prereq: BIOL& 241.

BIOL& 260 (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. Prereq: Two college-level BIOL or CHEM courses with 2.0 or higher; eligible for MATH& 098 and ENGL& 101 or permission.

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 295 (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 297 (1-5) C,N,S
Special Topics in Anatomy & Physiology

Anatomy and/or Physiology seminar or activity.

BIOL 298 (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 - Biology

Independent study of approved topics in the biological sciences. Prereq: Permission.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

BOTANY

BOT 110 (5) C,N,S
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 and ENGL& 101 (C).

BOT 112 (5) C,N,S
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.

BOT 113 (5) C,N,S
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.

BOT 299 (1-5) C,N,S
Independent Study – Botany

**BUILDING TRADES
PRE-APPRENTICESHIP**

See MTA, SVI only, page 184.

BUSINESS

NOTE: It is recommended that students at North Seattle College see an advisor or counselor for prerequisites.

BUS 090 (2-5) S
Foundation in Business Prep

Offered as a two-quarter course listed as BUS 090a and 090b. Lecture/lab to develop competencies in office administration and computation. 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 091 (2-17) S
Foundation in Business Prep II

Two-quarter course listed as BUS 091a and 091b. Continuation of BUS 090. Lecture/lab to develop competencies in office administration and computation. Includes keyboarding, computer software (Excel and Access) and intermediate/advanced business communications.

BUS 100 (3) C
Fundamentals of Supervision

Intro to first-line supervision, covering total responsibilities of a supervisor. Includes the function of management, human relations and motivation, effective communications, systems concepts and problem-solving.

BUS& 101 (5) C,N,S
Intro 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 103 (3) C
Personnel/Human Resource Management

Intro to organizational structure of the modern business office; recruitment and training; management of human resources; employee rights and ethical issues; legal responsibilities; and team-oriented collaboration for human relation dynamics.

BUS 104 (3) C,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 drills and timings. May be taken for S/NC or decimal grade and may be repeated for credit (N,S). Prereq: Keyboarding of 25 net wpm (C,N).

BUS 112 (5) N
Multicultural Issues in the American 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 113 (3) C,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 maintain 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) C,N,S
Business Math & Spreadsheets

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) C,N
Project Management Intro

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.

BUS 122 (3) C
The Entrepreneur Toolkit

Identify and learn entrepreneurial and small business skills. Develop an understanding of the difference between an employee and an entrepreneur/employer. Appropriate for students from any discipline that might lend itself to self-employment such as culinary, optician, photography, and others.

BUS 123 (5) N
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 (5) N
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 (5) N
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 (2) N
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 (2) N,S
Outlook for Business

Covers a basic knowledge of Outlook and the effective use of electronic communication.

BUS 131 (5) C,N,S
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,C), ASSET: W&R=46, SLEP: combined=65.

BUS 132 (5) C
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 138 (3) S
Leadership for Ground Service Companies

Intro to leadership for SEA-TAC airport employees. Covers leadership styles and skills in various organizational settings. Includes developing productive teams, motivating employees, handling difficult people and situations, learning practical skills and the role and responsibilities of being a leader/supervisor within the company policy and procedures guidelines.

BUS 139 (18) S
Customer Service/Call Center Training

A short-term program designed to provide skills needed for employment in a call center environment. Emphasizes practical skill development and application of policies and procedures within the company guidelines.

BUS 140 (5) C,N,S
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 (5) N
Intro 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 (3) N
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 (5) N
Entrepreneurship: Product/Service Selection, Pricing & Marketing

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 (5) N
Entrepreneurship: Planning Business Financials

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 (5) N
Entrepreneurship Overview

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 (5) N
Intro to e-Business/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 164 (2) C,S
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 (2) C,S
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 (2) C,S
Career Development III

Plan and create a project proposal. Research an area business or non-profit 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 (4-5) C,N,S
Information Technology 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 (4-5) C,N
Information Technology 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 170 or permission and touch type 35 correct wpm.

BUS 172 (4-5) C,N
Information Technology 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 – A Decision-Making Process

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 (S).

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 178 (5) C
Intro to Web Design/Development with Dreamweaver

Focuses on website design, concepts and processes necessary to develop, maintain and upload a commercial website to a worldwide web server through the use of Dreamweaver software. Covers design, color, graphics, sound and navigation. Prereq: Keyboard 25 net wpm plus BUS 170, MIC 101.

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 mailmerge. Prereq: BUS 169 or 170 or equivalent.

BUS 181 (5) C,N
Intro to Desktop Publishing

Creation of documents using desktop publishing software on the PC. Combines text-processing and graphics to create brochures, newsletters and other business materials using a popular software. Prereq: 25 net wpm and knowledge of word processing (C); BUS 172 or concurrent enrollment (N).

BUS 182 (5) C,S
Information & Records 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 184 (5) C
Business Database Applications

Covers the concepts of relational database design for solving typical business problems. Uses Microsoft Access and OpenOffice Base relational database software to implement the proposed business solutions. Prereq: BUS 170.

BUS 185 (5) C
Small Business Management

Covers the skills necessary to start and successfully manage a small business, especially for entrepreneurs and those wanting to work for and/or improve an existing business. Includes business plan creation, marketing, copyrights/patents, prototyping, and cash flow.

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 (2-8) C,S
Work Experience – Business

Earn work experience in the business field. Prereq: Permission.

BUS 200 (5) N,S
Law & 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 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 215 (5) N
Intro to International 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) 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, 201 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 in 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 Communications for the 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 the 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 servicemark 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
Global Marketing

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
Special Topics – Business

Individual or group study projects on topics in the field of business. Prereq: Permission.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN **Watch Technology**

NAME TO PREFIX

Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

CHEMICAL DEPENDENCY

See *Social and Human Services*, page 309.

CHEMISTRY

CHEM 106 (5) N,S
Intro to Food Science

Studies the biological and chemical consequences of food preparation. Explores questions such as why cut potatoes turn brown, why starch thickens sauces and why bread rises. Lab.

CHEM& 110 (5) C,N,S
Chemistry Concepts with Lab

Stresses a humanistic approach to chemistry and de-emphasizes mathematical problem-solving. Reveals chemical principles, facts and theories through practical applications, computer graphic illustrations and experiments. Includes lab.

CHEM& 121 (5) C,N,S
Intro to Chemistry

Fundamental inorganic chemistry, including bonding, stoichiometry, gas laws and acid/base topics. Of particular interest to Health Science and Biotechnology students. Lab included. Prereq: One year of high school algebra or MATH 085.

CHEM& 122 (5) C,N,S
Intro to Organic Chemistry

Continuation of organic chemistry and intro to biochemistry. Lab included. Prereq: CHEM& 121.

CHEM& 123 (5) C,N,S
Intro to Biochemistry

Explores the role of biochemistry in modern society. Covers functional groups, carbohydrates, amino acids, lipids, nucleic acids, steroids, genetics and pharmaceuticals. Lab included. Prereq: CHEM& 122.

CHEM& 131 (5) N
Intro to Organic Chemistry & Biochemistry

Covers the structure, properties and reactions of various organic compounds, including hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids and amines. Examines complex compounds found in living systems: carbohydrates, lipids, proteins, and nucleic acids. Lab focuses on analysis and separation techniques. Prereq: CHEM& 121 with 2.0 or higher.

CHEM& 139 (5) C,N,S
General Chemistry Prep

Lecture. Includes chemical mathematics, basic atomic structure, chemical bonding, chemical equation balancing, mole concept and chemical stoichiometry. Prereq: MATH 098.

CHEM& 161 (6) C,N,S
General Chemistry with 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 with 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 with 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 191,192 (9 EA.) N
General Chemistry (two-quarter sequence)

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& 241 (4) C,N,S
Organic Chemistry I

Structure, nomenclature, reactions and synthesis of the main types of organic compounds. Prereq: CHEM& 163.

CHEM& 242 (4) C,N,S
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,S
Organic Chemistry III

Polyfunctional compounds and natural products, lipids, carbohydrates, amino acids, proteins and nucleic acids. Prereq: CHEM& 242.

CHEM& 251 (4) C,N,S
Organic Chemistry Lab I

Preparation of representative compounds. Prereq: CHEM& 241 or concurrent enrollment.

CHEM& 252 (4) C,N,S
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 298 (1-5) C,N,S**Special Topics - Chemistry**

Seminar of selected topics and/or activity in the chemical sciences. Prereq: Variable, dependent on topic.

CHEM 299 (1-5) C,N,S**Independent Study - Chemistry**

Independent study of approved topics in the chemical sciences. Prereq: CHEM& 163 and permission.

CHILD & FAMILY STUDIES**CFS 110 (3) C****Activities & Environments for Young Children**

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 & Cognitive Development of Young Children**

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 of Young Children**

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**Activities that Foster Development During the 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 the Adolescent 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 Behavior & Social Development During School-Age & Adolescent Years**

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 Activities & Spaces for School-Age & Youth Programs**

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**Mathematics & Science Methods for Working 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 & Youth Programs**

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**Childhood/Adolescent Sexuality & Education**

Explores biological sexual development and culturally specific responses to myths and misinformation common among children, youth and families. Covers strategies for incorporating accurate, culturally-sensitive information with families, children and youth. Explores issues of sexual-identity development including gender roles, sexuality, stereotypes and the impact of the media. Examines responses to teen-pregnancy and sexual abuse. Prereq: Eligible for ENGL& 101 and MATH 084.

CFS 245 (3) C**Building Partnerships with Diverse Families**

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 & Community Development with Children, Youth & Families**

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**Working with 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 & MATH 084.

CFS 270 (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 & MATH 084.

CFS 280 (3) C**Methods for Cultural Relevancy & Anti-Bias Strategies for Children & Families**

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 Children & Their Families**

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 & Finance for Non-Profits**

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 297 (1-5) C**Special Topics**

A series of workshops on a wide-variety of topics related to education and early learning such as program administration, English language learning, pre-K-3 alignment, assessment, rating, and child advocacy. Special Topics may be tailored to meet community program needs.

CFS 298 (1-5) C**Independent Study**

Course work designed to meet your individual student learning plan; completed independently with an instructor's guidance. Prereq: Permission

CFS 299 (2) C**MERIT**

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.

CHINESE

See Languages & Literature, page 262.

COMMUNICATION**CMST& 101 (5) C,N,S****Intro to Communication**

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,S**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,S**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 095/096 or higher; or permission.

CMST 145 (5) C,N,S**Gender & Family Communication**

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,S**Argumentation & Public Debate**

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,S**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 (3-5) C,N,S**Organizational Communication**

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 Communication**

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 Communication**

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 (3-5) N,S**International Communication & Relations**

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; preparation and delivery of informative, persuasive, special occasion and other forms of presentations. Prereq: Placement into ENGL& 101.

CMST& 230 (5) C,N,S**Small Group Communication**

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 (5) N**Media Research, Marketing & 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 245 (5) N,S**Media Communication & 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.

CMST 255 (3-5) N,S**Writing for Organizations & the 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) 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 (3-5) N,S**Online Communication**

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,S**Current Topics in Communication**

Timely, multidisciplinary approaches to interpersonal, group, organizational, intercultural and media communication. Prereq: ENGL& 101 and 102; or permission.

CMST 290 (5) N**Media Project Management 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) 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) 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 aural material.

CMST 293 (5) N**Television & Video Practicum**

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) N**News & Public Information Practicum**

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

CMST 295 (1-5) C,N,S

Studies & Works in Communication

Analytical study or creative work in Communication. Prereq: ENGL& 101 and 102, an approved learning contract/proposal and permission.

CMST 298 (1-5) C,N,S

Special Projects - Communication

Special projects in Communication.

CMST 299 (1-5) C,N,S

Studies & Works in Communication

Special projects in Communication.

COMMUNITY HEALTH & EDUCATION**Bachelor of Applied Science in Allied Health – Community Health & Education Track**

Students must be accepted into the program in order to take these courses. Courses in development. See Allied Health Department or website for further information.

COMMUNITY POLICING

CPP 101 (5) N,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

See Computer Science, Computing Technology, Information Technology and Network Technologies.

COMPUTER SCIENCE

CSC 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 (1-5) C

Using Computers – Modules

Covers computer topics chosen by the instructor and/or division. Topics may supplement content in another course (word processing for English, graphics for math or spreadsheets for economics). Class format varies. Prereq: Permission.

CSC 110 (5) C,N,S

Intro to Computer Programming

Overview of computer program design and problem-solving with a focus on problem analysis, program development, testing and debugging. Use decision and loop structures to develop a variety of programs to solve scientific and technical problems. Programming language used may vary. Prereq: MATH 098 or MATH 106.

CSC 111 (5) C,N,S

Computers for Math & Science

Learn to electronically find, share and access scientific information on the Internet and use applications to collect, analyze and present data. Create a website, handle email, compress and archive files and write simple programs. Includes hardware, software, networks and privacy. Prereq: MATH 098.

CSC 142 (5) C,N,S

Computer Programming for Engineers

Covers 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& 141. May be taken as ENGR 142.

CSC 143 (5) C,N,S

Computer Programming II

Continuation of CSC 142. Covers classes and interfaces, inheritance, graphics, exceptions, stream I/O, recursion, analysis of algorithms and some dynamic structures (lists, stacks, trees). Intro to advanced Java language features and new programming topics. Learn the tools for building efficient software systems: dynamic data allocation, recursion and analysis of algorithms. Prereq: CSC 142.

CSC 198 (1-5) N

Computer Workshop

Covers computer topics considered appropriate by the instructor and/or division. May be supplemental to another course.

CSC 273 (5) N

Data Structures and 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 (1-5) C,N

Special Topics

A seminar of selected topics or activities in computer science. Prereq: Variable, dependent on topic.

CSC 299 (1-5) C,N

Independent Study

Independent study of approved topics in computer science. Prereq: Permission.

COMPUTING TECHNOLOGY

Also see Computer Science, Information Technology and Network Technologies.

ICT 103 (2) S

Computer Applications

Intro to popular applications software. Hands-on experience with a word processor, spreadsheet, database manager and MS-DOS.

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**Databases 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. Final projects 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**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**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 172 (5) S**Hardware III**

Focus on A+ certification and preparation for certification tests relevant to most current CompTia testing. Includes troubleshooting, customer interaction and networking information included in testing. Prereq: CTN 171.

CTN 173 (5) S**Content Management Systems**

Covers the basics of content management systems, installs, updates, and some configurations of a CMS. Learn to insert, update and delete available information and content in the portal. Includes installing, managing, and using CMS add-ons, widgets and themes. Prereq: CTN 160 with 2.0 or higher.

CTN 197 (1-15) S**Computing Internships**

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.

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 with 2.0 or higher; CTN 270 recommended.

CTN 267 (5) S**XML I**

Comprehensive intro to the XML specification and accompanying standards. Covers the basics of XML syntax, DTDs and an overview of XML schemas, XSL transformations, XML namespaces and an intro to XHTML. Prereq: CTN 131 and 160 or permission.

CTN 270 (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 operation 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 & the 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 (5) 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**

CCNA 5.0 "CCNA Routing and Switching: Routing Protocols". Second of four-course Cisco training program which prepares the student for the Certified Cisco Network Associate certification exam. Includes Routing Concepts, Static and Dynamic routing, EIGRP, OSPF. Uses IPv4 and IP v6. Prereq: CTN 282 and pass the CCNA 1 final.

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 WLANs, 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 & the 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**Help Desk, 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 in Computing Technology**

Special topics in individual or group study in the Computing Technology field. Prereq: Permission.

CTN 299 (1-5) S**Special Topics in Industrial Computing Technology**

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 101 (2) N****Portfolio, Job Search & Interviewing**

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 (1-2) 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 (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 197 (1-8) C
Cooperative Education/Work Experience

Earn credit for work or internship experiences.

CWE 495 (9) N
Baccalaureate Internship

Culminating course for IB BAS. Arrange and complete an internship, applying theory and skills learned in the classroom to the workplace. Reflect on experiences and integrate them with classroom learning. Prereq: Enrollment in International Business BAS program.

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.

CULINARY ARTS • CENTRAL •

Culinary Arts Specialty Breads & Desserts

BAK 101 (4) C
Intro to Desserts & Breads (Theory)

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
Advanced Theory

Presents advanced theory and ingredients in chocolate 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.

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: CUL 102.

BAK 111 (6) C
Intro to Desserts & Breads (Practicum)

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
Beginning Desserts & Breads (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: BAK 111.

BAK 113 (8) C
Intermediate Desserts & Breads (Practicum)

Development of independent 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: BAK 112.

BAK 115 (1) C
Restaurant Baking (Practicum)

For culinary arts students. Production of baked goods including ganache, custards, creams, puddings, mousses and purees. Prereq: CUL 102.

BAK 116 (1) C
Fine Dining Baking (Practicum)

For culinary arts students. Applies baking theory to production of yeast doughs (bread, puff pastry and choux), breads, focaccia, cakes, icings, decorations, mousses, tortes, puff pastries and fine plated desserts. Prereq: BAK 115.

BAK 117 (1) C
Intro to Cheese Making

For culinary arts students. Learn cheese making and fermentation techniques in the culinary field, including cheese diversity, milk composition, and the eight basic steps.

BAK 123 (2) C
Advanced Desserts & Breads (Theory)

Design and develop a line of bakery goods. Learn how to purchase goods, inventory goods, calculate cost analysis and develop a bakery line for presentation. Prereq: BAK 101.

BAK 124 (8) C
Advanced Buffet Desserts & Wedding Cakes (Practicum)

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. Prereq: BAK 101.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN **Watch Technology**

NAME TO PREFIX

Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

BAK 125 (8) C**Advanced Desserts & Breads: (Practicum)**

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 210 (1) C**Science & Baking**

Overview of food science for baking students. Begin developing baking formulas for those who need gluten-free, diabetic diet and other special baking products.

BAK 299 (1-5) C**Special Projects, Specialty Desserts & Breads**

Independent study course for individual projects in the desserts/pastry field. Prereq: permission.

BIOL 103 (3) C**Nutrition for Food Service Professionals**

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.

CUL 101 (6) C**Food Theory I**

Intro to fundamentals of professional cooking, including history of the food service history; professional attributes; kitchen safety, tools and equipment identification; knife safety and cutting techniques; basic kitchen ratios; mise en place; moist and dry heat cooking; stocks; egg cookery; intro to vegetables, starches, meats, poultry, fish and shellfish; and basic aromatic and flavoring combinations. Prereq: Admission to program.

CUL 102 (5) C**Food Theory II**

Continuation of professional cooking, particularly theory relating to quantity food production. Includes trade terminology, heavy equipment, tool identification, mise en place, soups, salads, meats, fish, poultry, vegetables, starches, sandwiches, butchering, garnishes and presentation. Prereq: CUL 101.

CUL 103 (4) C**Food Theory III**

Covers professional cooking at the casual American restaurant, Explore the cultural roots of contemporary American cooking and the cultural and technical background of dishes. Includes recipe and menu writing, and chemical changes that occur when heat in various forms is applied to food. Practice identification, selection, receiving and handling of ingredients such as herbs, spices, vegetables, fin fish and shellfish. Prereq: CUL 102.

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: CUL 103.

CUL 106 (1.5) C**Intro to Culinary Arts (Theory)**

Intro to culinary arts. Includes the theory of the various types of moist and dry heat cooking methods; product identification; preparation methods for stocks, sauces, vegetables and side dishes. Prereq: Admission to program.

CUL 111 (6) C**Intro to Professional Cooking (Practicum)**

Intro to fundamentals of professional cooking. Includes kitchen safety and operations, knife skills, basic food and stock preparation, teamwork and leadership, general house-keeping, sanitation and clean up. Prereq: Admission to program.

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: CUL 111.

CUL 113 (8) C**Restaurant Cooking (Practicum)**

Prepare meals for on-campus casual American restaurant. Work pantry, sauté, grill and fryer stations. Use traditional and contemporary culinary techniques to produce a culturally diverse selection of soups and salads, casual entrees and desserts. Practice fabrication of various meats, seafood and vegetables and various wet and dry cooking methods. Includes concepts of mise en place, collaboration and seasonality. Develop skills in organization, speed, plate presentation and evaluation of finished products. Prereq: CUL 112.

CUL 114 (8) C**International Cooking (Practicum)**

Practice cooking creativity with classical and contemporary Northwest, Spanish, Oaxacan, French, Pan-Asian and Middle Eastern cuisines. Focus on seasonal ingredients, sustainable purchasing practices, healthy cooking techniques, plate presentation, accuracy, speed, effective working habits, palate development, care for ingredients, safety, professionalism and organization. Produce dishes for "One World" restaurant and private dining room. Prereq: CUL 113.

CUL 116 (1) C**Intro to Culinary Arts (Practicum)**

Covers fundamentals of culinary arts. Rotate into a different kitchen each day and prepare a variety of dishes in each area. Includes various types of moist and dry heat cooking methods and preparation methods for breakfast items, poultry or rabbit, fish, soups, stocks, sauces, vegetables and side dishes, salads and dressings. Prereq: Admission to program.

CUL 120 (1) C**Intro to Wine**

Covers the fundamentals of grape growing and winemaking, including table, sparkling and fortified wines. Includes sensory evaluation of classic grape varieties and their growing regions with emphasis on Washington state wines. Learn strategies for food and wine pairing. Prereq: BAK 103 or CUL 104.

CUL 130 (1.5) C**Intro to Growing a Chef's Garden**

Intro to all aspects of edible gardening, including general plant science and edible plant families. Learn strategies for maximizing yield and for incorporating kitchen gardens into a restaurant business plan. Prereqs: CUL 104, BAK 103 & 113.

CUL 151 (1) C**Sustainable Food Systems Practices I**

Intro to 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 food system. Prereq: Admission to program or permission.

CUL 152 (1) C**Sustainable Food Systems Practices II**

Continuation of CUL 151. Prereq: CUL 151 with 2.0 or better or permission.

CUL 153 (1) C**Sustainable Food Systems Practices III**

Explore 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 to navigate and purchase from the local producer market. Prereq: CUL 152 or permission.

CUL 205 (1) C**Advanced Culinary Theory**

Explore the technical aspects of designing menus and menu items for specific target populations with an emphasis on high-end fine dining. Learn to communicate "main message points" to describe and promote new or existing dining concepts for public relations and promotional purposes. Prereq: CUL 104.

CUL 215 (4) C**Advanced Culinary Practices**

Culminate culinary experience in 4 capstone projects. Create and serve own menus in private dining room; create meals with nutrition focus; practice advanced technique; and build culinary competition skills. Lead others while practicing professionalism and commitment to producing quality food. Prereq: CUL 114.

CUL 251 (4) C**Buffet Catering, Garde Manger & Ice Carving (Theory)**

Covers garde mange applications such as charcuterie, forcemeats, curing and smoking, and hors d'oeuvres. Learn to design an ice carving and show platter. Learn about produce farming, sustainability, and seed to plate food production while visiting Skagit Valley Farm. Prereq: CUL 102 or permission.

CUL 255 (8) C**Buffet Catering, Garde Manger & Ice Carving (Practicum)**

Prepare food for a buffet setting, including salads, canapés, dim sum, sushi, hot entrees and breads. Operate a "to go" sandwich program to develop marketing and packaging skills. Produce a variety of charcuterie items. Work on one ice carving and show platter for buffet presentation. When applicable, use weekly harvests from Skagit Valley Farm in menus and recipes. Prereq: CUL 112 or permission.

CUL 291 (5) C**Seattle Culinary Academy Travel 1: Culinary Immersion**

Intensive culinary immersion programs in international culture and cooking with international partners. Travel and learn history, language, culture, traditional and modern cuisine of a specific 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.

CUL 292 (5) C**Seattle Culinary Academy Travel 2: Culinary Immersion**

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.

CUL 299 (1-5) C**Individual Projects Hospitality & Culinary Arts**

Permission required.

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: Admission to program.

HOS 102 (1) C**Customer Service Practicum II**

Refine customer service skills by further practice in a pastry case or full-service restaurant. Includes dining room arrangement, customer service and wait staff duties. In the bakery counter setting, practice product rotations and merchandising. Prereq: HOS 101.

HOS 103 (1) C**Customer Service Practicum III**

Acquire expertise in customer service by performing opening/closing procedures, using a variety of service techniques and training bus staff. Prereq: HOS 102.

HOS 104 (1) C**Customer Service Practicum IV**

Intro to leadership positions in the front of the house. Includes maitre d' duties, managing reservations and cashiering. Prereq: HOS 103

HOS 105 (1) C**Customer Service for Specialty Desserts & Breads**

For desserts students. Assume responsibility for opening/closing, sales, organization and merchandising of product and training of first-quarter students at a retail pastry case. Prereq: HOS 102

HOS 106 (1) C**Advanced Bakery Counter Service (Practicum)**

Explains advanced counter service techniques. Includes training beginning students in customer service (pastry sales, general housekeeping and pastry case mise en place); responsibility for daily setup; and supervision of merchandising and product organization. Prereq: HOS 105.

HOS 108 (4) C**Dining Room & Kitchen Management**

Covers management and supervision and training practices within the hospitality and culinary arts industries. Includes tableside cooking and service for COD projects. Prereq: CUL 104.

HOS 109 (.5) C**Advanced Customer Service Practicum**

Further exploration of customer service including communication strategies, behavior assessments, complaint resolution, customer characteristics, professionalism, teamwork, buffet arrangements and display of ice carvings. Prereq: HOS 101.

HOS 110 (3) C**Principles of Sanitation**

Fundamentals of food service sanitation and its importance to the industry. Includes microorganisms in food spoilage and food-borne 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.

HOS 111 (1) C**Dining Room Theory**

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 and ticket writing. Use a variety of dining room equipment. Prereq: HOS 110.

HOS 122 (1) C**Purchasing & Inventory Theory**

Intro to principles of food costing and 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: HOS 101.

HOS 123 (1) C**Food Costing Principles & Application**

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: HOS 101.

HOS 124 (2) C**Computerized Menu Planning**

Learn various menu layouts and designs. Use proper menu language, word processing and Excel programs to create menus and cost recipes. Perform weight to volume conversions. Prereq: MIC 102.

HOS 150 (2) C**Measurements & Meanings**

Covers the ways measurements, numerical expressions and calculations are used in the culinary and pastry arts. Learn to perform basic calculations, use percents, measure ingredients, calculate and adjust the yield of recipes, cost recipes, price menu items and interpret data in chart and graph format. Prereq: Program enrollment.

HOS 201 (2) C**Functions of Management**

Covers management and communication theories and practices within the culinary arts and baking industries. Includes current issues: intro to hospitality, Americans with Disabilities Act, sexual harassment and other legal and human resource issues. Covers communications skills, functions of management, beverage management and financial statement analysis and résumé writing. Prereq: Quarters 1-4 of Specialty Desserts and Breads or Culinary Arts program.

CULINARY ARTS • SOUTH •**Banquets & Catering
Pastry & Baking Arts
Restaurant Production**

Also see Hospitality Management BAS Degree, page 246.

FSD 100 (3) S**Food Safety & Sanitation**

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.

FSD 101 (1) S**Orientation to Food Production**

Two-week module introducing the culinary kitchen lab areas. Includes equipment operation, safety and sanitation. Practice beginning knife skills.

FSD 160 (5) S**Theory 1 – Culinary Fundamentals**

Beginning level culinary fundamentals covering history, tools and equipment, flavors and pairings, product identification and breakfast cookery. Prereq: Culinary Arts enrollment or permission.

FSD 165 (15) S**Culinary 1**

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.

FSD 170 (5) S**Theory 2 – Advanced Culinary Fundamentals**

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.

FSD 175 (15) S**Culinary 2**

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.

FSD 180 (5) S**Theory 3 – Garde Manger/
Advanced Cold Food**

Covers concepts of the art of garde manger, 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.

FSD 185 (15) S**Culinary 3**

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.

FSD 190 (5) S**Theory 4 – Restaurant Cost Controls**

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 (1-15) S
Internship in 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 & Catering

Final course in Banquet & Catering Track includes advanced garde manger, 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 in Culinary Arts

Independent study on an individual basis in the Culinary industry. Prereq: Permission.

HOS 203 (3) S
Commercial Food Nutrition

Complete overview of the six nutrient categories – carbohydrates, lipids, protein, vitamins, minerals and water. Practical information on 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.

PST 101 (5) S
Pastry and 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 I

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 flow, marzipan, macaronade, rose paste, and chocolate tempering. Prereq: PST 102 or permission.

PST 104 (4) S
Decoration Theory II

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 III

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 I

Covers production of cookies, cakes, and quick breads. Learn terms, ingredients and their functions, and techniques of basic baking. Prepare assorted doughs and batters using classic and modern mixing methods. Includes assessment of doughs and batters, product finishes, safety and sanitation procedures. Prereq: PST 101 or permission.

PST 112 (15) S
Pastry I

Covers French pastry and beginning decorating and finishing. Make primary doughs and bases using classical techniques: Pate Feuilleté, pâte à choux, pâte sucrée 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 II

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 yeasted 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 (1-15) S
Internship in Pastry & Baking

Individual internship in Pastry and/or Baking Arts industries. Prereq: permission.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

PST 211 (15) S
Pastry II

Covers advanced 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.

PST 212 (15) S
Pastry III

Covers terms and techniques of chocolate work, seasonal baking and show pieces, including tempering, candy cooking, enrobing, piping and product finishes. Also covers use of local, sustainable, natural and organic dairy and seasonal produce in baked and dessert products. Learn storage and care, stock rotation, safety and sanitation. Produce a decorative display piece. Prereq: PST 211 or permission.

PST 213 (15) S
Pastry IV

Covers terms and techniques of advanced pastry decoration by making complicated desserts and highly decorated cakes, including advanced mousses, Bavarians and meringues. Learn practical management skills through student lead experiences: delegation, leadership, time management, conflict resolution, customer relations, inventory control, product receiving and rotation, safety and sanitation. Prereqs: PST 102 and 212 or permission.

PST 299 (1-15) S
Special Topics in Pastry & Baking

Special topics on an individual or group basis related to Pastry and Baking Arts industries.

DENTAL ASSISTANT

See *Dental Assistant Program at SVI, page 180.*

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 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 of 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
Dental 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 Practice

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 and Neck Anatomy

Covers anatomy and function of the head and neck, including location, characteristics and function of all anatomical structures, all hard and soft tissues and all components of the circulatory system and cranial nerves.

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

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 (1-5) 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 298 (1-5) 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

Curriculum under development at time of printing. Contact department or website for more information.

DHY 306 (2) C
Restorative Practice & 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.

DHY 307 (1) C
Restorative Practice & Materials I

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 (1) C
Restorative Practice & Materials II

Covers the physical, mechanical, chemical and biological properties of dental materials commonly used in direct and indirect restorative procedures. Includes basic knowledge of materials used in preventive, periodontics, restorative and other specialty fields in dentistry.

DHY 309 (1) C
Restorative Practice & Materials III

Study clinical restorative dentistry, focusing on the chemical, physical and mechanical properties of commonly used dental materials and their uses, manipulation and application. Practice lab applications including proper handling, manipulation and application of different dental materials into prepared typodonts. Lab.

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 (1) C
Pain Control & Anesthesia Lab

Curriculum under development at time of printing.

DHY 313 (3) C
Periodontology 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 aides.

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.

DHY 315 (2) 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 (1-5) 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 391 (1) C
Community Dental Health I

Intro to community dental health assessment, education and health promotion, and program development, and Dental Hygiene Process Care. Intro to evidence-based research techniques and theoretic models as a means to achieve improved oral health outcomes at local, state, federal, and global levels, specific to identified target populations.

NOTE: The following courses are under development at the time of printing. Consult the department or the website.

DHY 400, 401, 402 (8EA.) C
Advanced Practicum in Dental Hygiene I,II,III**DHY 404, 405, 406 (3EA.) C**
Principles of Dental Hygiene Practice I,II,III**DHY 407 (1) C**
Capstone**DHY 408 (1) C**
Strategies of Capstone Project**DHY 409 (3) C**
Ethics and 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, the 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
Periodontology 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.

NOTE: The following courses are under development at the time of printing. Consult the department or the website.

DHY 414 (1) C
Selective Populations**DHY 415 (1) C**
Selective Populations Lab**DHY 416 (1) C**
Professional Issues**DHY 419 (2) C**
Community Dental Health II**DHY 420 (1) C**
Community Dental Health III**DHY 482, 483, 484, 485 (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.

DIESEL & HEAVY EQUIPMENT TECHNOLOGY

NOTE: These courses include instruction in safety, environmental awareness, human relations and leadership.

HDM 101 (3) S
Intro to Heavy Duty

Covers the basics of hand tools, power tools, safety, measuring instruments, repair orders, lubrication and some of the specialized tools used in the heavy-duty industry.

HDM 102 (6) S
Electrical-Electronics, Basic

Covers safety procedures when working with electricity and fundamental electrical theory. Includes types of circuits, Ohm's law, use of common test equipment and reading wiring diagrams. Prereq: HDM 101 or permission.

HDM 103 (3) S
Intro to Truck & Trailer Maintenance

Includes training on material safety data sheets (MSDS) and the identification of tools and their uses. Includes how to work safely with tools and equipment in a repair shop. Prereq: Permission.

HDM 104 (6) S
Batteries, Generators & Alternators

Diagnose and repair charging systems commonly used in heavy-duty truck and equipment maintenance. Prereq: HDM 102.

HDM 105 (4) S
Truck & Trailer Preventive Maintenance

Covers preventative maintenance including inspection of trucks and trailers, service of vehicles and changing oil and lube, according to manufacturers' specifications for problem prevention. Prereq: HMD 103.

HDM 106 (5) S
Cranking & Lighting Systems

Covers theory, operation and repair of starter motors commonly used in the industry, including control devices and wiring used with these motors. Covers troubleshooting and the use of common test equipment. Includes knowledge of truck equipment lighting systems and the hardware to control them. Prereq: HDM 102.

HDM 107 (9) S
Hydraulics & Pneumatics

Covers theory, basic operation principles, design, function, testing and repair of selected types of hydraulic and air pumps, motors, hoses and accessories used on mobile equipment, as well as application and repair of pressure, flow and directional control valves and actuators. Prereq: HDM 101 or permission.

HDM 109 (4) S
Truck & Trailer Repair

Covers how to make minor repairs to trucks and trailers, change tires, repair tires and adjust wheel bearings to manufacturers' specifications. Prereq: HDM 105.

HDM 113 (6) S
Basic Welding & Cutting – Diesel & Equipment Technician

Intro to SMAC (shielded metal arc welding), oxyacetylene and carbon arc skills involved in the repair and maintenance of heavy-duty trucks and construction equipment. Perform several pertinent tasks and projects contained in an industry-approved competency-based learning module. Prior knowledge of hand and basic power tools is helpful. Prereq: Enrollment in program or permission.

HDM 123 (12) S**Diesel Engine Repair & Performance**

Study and perform diagnosis, repair, tune-up and servicing procedures on current diesel engines used in the heavy-duty truck and equipment industry. Disassemble, clean and inspect engines and components, installing replacement parts as needed. Prereq: HDM 101 or permission.

HDM 124 (5) S**Preventive Maintenance**

Learn preventive maintenance practices commonly found in the trucking and equipment industry. Includes inspection and determination of failures along with the necessary repairs. Covers proper handling and disposal of hazardous material. Prereq: HDM 101 or permission.

HDM 127 (8) S**Drive Train**

Covers diagnosis and repair of Drive Train components, including mechanical clutches, flywheels, standard transmissions, torque converters and automatic/power shift transmissions. Learn to troubleshoot, diagnose, disassemble and reassemble transmissions common to the industry; and to check universal joints, drivelines, differential assemblies and final drive units. Prereq: HDM 101 or permission.

HDM 128 (4) S**Basic Gasoline Engines**

Study the basic operation of gas engines, diagnosing their condition by disassembling various types of current model engines. Prereq: HDM 101.

HDM 138 (15) S**Steering, Suspension & Brakes**

Study components and systems relating to truck or equipment running gear. Covers theory, operation, diagnosis and repair of wheels, tires, brakes, steering and suspension systems. Prereq: HDM 101 or permission.

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 191 (4) S**Advanced Gasoline Engines**

Theory and operation of fuel and ignition systems used on industrial gas engines commonly found in the heavy-duty industry. Covers common types of ignition and carburetion systems. Prereq: HDM 128 or permission.

HDM 193 (6) S**Heating, Ventilation & Air Conditioning**

Study the operation, system diagnosis and repair of heating, ventilation and air conditioning systems related to trucks and equipment. Covers retrofit of R-12 systems to R-134a refrigerant. 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 Mechanical Repair**

Study selected procedures and skill tasks for truck and heavy equipment technicians. Course content, format and projects vary. Prereq: Permission.

HDM 201 (5) S**Shop Practices**

Apply the knowledge and tasks learned in prior mechanical skills units, including repair and service work on a variety of heavy-duty trucks and equipment. Repair procedures and shop policies will simulate work site situations. Students electing to work within the industry will complete a minimum of 66 supervised hours in trade-related employment. Prereq: Permission.

HDM 298 (1-10) S**Advanced Special Topics Heavy Duty Mechanical 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 • NORTH •**Architectural Engineering Drafting****TDR 100 (5) N****Basic BIM for Design and Construction**

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 BIM for Design and Construction**

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 BIM for Design and Construction**

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**

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. Prerequisite: TDR 100, 101 and 102 or permission.

TDR 109 (1) N**Architectural Engineering Drafting 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 Drafting for 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**Intermediate CAD Drafting for 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

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 & Site Drafting

Study development of site plans including basic contours, utility features, simple road layout and storm drainage features. Perform simple calculations.

TDR 124 (5) N
Material & Methods 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 134 (5) N
Systems in Building

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 144 (5) N
Design & Construction 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
Applied Mechanics I

Primarily for non-engineering students. Covers basic concepts of force systems, equilibrium, moments, centroids, moments of inertia, and simple beam design as applied to structural steel. Includes loading criteria, tributary loads and deflection.

TDR 161 (5) N
Applied Mechanics II

A continuation of TDR 160. Covers basic wood beam design. Includes allowable stress, loading criteria, shear and deflection. Covers basic truss analysis.

TDR 176 (4) N
Advanced AutoCAD for Architectural & Engineering Drafting

Advanced concepts of AutoCAD. Develop productivity tools such as macros, templates and system customizing. Begin to work in 3-D.

TDR 200 (5) N
Intro to SolidWorks

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. Prereq: MATH&141 or EET 109, TDR 111 & 113.

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 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 297 (2-10) N
Special Topics in Construction & Design Drafting with CAD

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 299 (1-3) N
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.

DRAFTING • SOUTH •

Engineering Graphics & Design Technology

TDR 105 (1) S
Technical Employment Preparation

Intro to 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 121 (4) S
Drafting Technology I

Covers basic drafting knowledge, skills and standards required to prepare three-view and pictorial drawings to current industry standards. Prereq: COMPASS or SLEP test.

TDR 123 (4) 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 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) 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.

TDR 131 (4) S**Intro 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) 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 135 (4) S**AutoCAD 3D 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 160 (5) 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 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 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 (1-3) 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 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**Basic CAD – 3-D**

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) S**Advanced CAD 3-D**

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 233 (5) S**Field Specialty Drafting – Civil**

Student/instructor designed course covering drafting techniques and practices specific to the field of civil engineering. Prereq: Completion of Technical Drafting & Design certificate.

TDR 235 (5) S**Field Specialty Drafting – Mechanical**

Student/instructor designed course covering drafting techniques and practices specific to the field of mechanical engineering. Prereq: Completion of Technical Drafting & Design certificate.

TDR 236 (1) 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.

TDR 237 (2) S**Design Project 1**

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 2**

Practical application course utilizing previously acquired skills. Concentration on the aspects of a major design project.

TDR 239 (4) S**Design Project – Mechanical**

Application of drafting skills and knowledge to the design and drawing of a moderately complex mechanical system, including development of formed sheet metal parts. Prereq: Second-year standing or permission.

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 243 (4) S**Basic Tool Design**

Study locating and clamping of parts so that they can be formed, machined, or assembled with very simple tools or with automated machinery. Design projects include simple jigs and fixtures as well as automatic machinery tooling. Prereq: TDR 179 and 135 or permission.

TDR 245 (4) S**Design of Machine Elements**

Intro to the vast field of machine design. Covers machine design principles and calculations to determine the strength, size and shape of various machine parts, such as bearings, shafts and couplings, gear drive systems, clutches and brakes. Includes loads of various types. Prereqs: TDR 179 and 272 or permission.

TDR 250 (3) S**CAD & CAM**

Covers the use of G and M codes and MASTERCAM to produce programs to run Computer Numeric Controlled (CNC) equipment. Prereq: IMT 120 or two quarters of computer-aided drafting.

TDR 263 (4) S**Applied Mechanics 1**

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 268 (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 272 (4) S**Applied Mechanics 2**

Covers structural material strength and basic calculations involved when loading structural members and joints. For drafting majors. Prereq: TDR 263.

TDR 280 (4) S**Geometric Dimensioning & Tolerancing**

Basic interpretation of geometric tolerances on engineering drawings. All studies are based on ANSI Y14.5M-1982. Prereq: TDR 179.

TDR 298 (1-10) S**Special Topics in Drafting**

Individual or group study in industrial drafting. Prereq: Permission.

DRAMA**DRMA& 101 (5) C,N,S****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 (5) N**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 (5) N**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.

DRMA 108, 109, 110 (2-5) N**Rehearsal & Performance**

Participation in rehearsal and performance process culminating in performance. Audition or instructor permission.

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 & 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.

DRMA 116 (4) N**Fundamentals of Acting for the 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**Intro to Acting**

Builds a foundation of theory and application with the broad use of improvisational techniques and movement for the actor.

DRMA 121 (5) C,N,S**Acting**

Theory and practice of acting fundamentals. Exercises in voice, movement, observation, imagination and script analysis. Culminates in scene study, production and performance process. Recommended: DRMA& 101 or DRMA 120.

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.

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.

DRMA 131 (5) C,N**Intro to Technical Theatre**

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 (3) N**Theater Appreciation**

For non-majors who wish to know more about the theatrical event, specifically within the Seattle area. Read and evaluate scripts and performances occurring locally, visit theaters and studios, talk with actors, directors and designers, as well as participate in the theatrical experience with a taste of acting and improvisation.

DRMA 180 (5) N**Music Theater 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 (4) N**Intro to Musical Theater**

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**Series – Special Projects in Drama**

Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

DRMA 201, 202 (1-5) C,N**Special Studies**

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.

DRMA 204 (5) C,S**Jazz I**

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.

DRMA 205 (5) C,S**Jazz II**

Continuation of DRMA 204.

DRMA 206 (5) C,S**Jazz III**

Continuation of DRMA 205.

DRMA 211 (1-5) C,N**Theater Management**

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.

DRMA 221 (5) C,N**Advanced Acting**

Examination of acting styles and techniques with emphasis on scene study and analysis in contemporary and classical drama. Prereq: DRMA 123 or permission.

DRMA 222 (5) C,N**Advanced Acting**

Continuation of DRMA 221. Prereq: DRMA 221 or permission.

DRMA 223 (5) C,N**Advanced Acting**

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.

DRMA 224 (1-5) C,N**Production & Stage Management****DRMA 231 (1-5) C,N****Props & Sound****DRMA 241 (1-5) N****Costuming****DRMA 251 (1-5) C,N****Stage Scenery****DRMA 261 (1-5) C,N****Stage Lighting****DRMA 271 (1-5) C,N****Acting****DRMA 272 (1-5) N****Acting****DRMA 273 (1-5) N****Acting****DRMA 281 (1-5) C,N****Directing****DRMA 284 (5) N****Playwriting**

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& 101 placement or permission.

DRMA 285 (2-5) N**Playwriting 2**

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.

DRMA 286 (2-5) 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, 292, 293 (1-5) C,N**Series – Special Projects in Drama: Theatrical Internship**

Individual student-initiated and developed performances/projects under faculty supervision. Prereq: Permission.

DRMA 298 (1-5) N,S**Individual Projects in Theater**

Individual projects in set design, lighting, costuming, directing, house management and acting, as determined by advanced drama students and the drama faculty. Prereq: Advanced standing, permission.

EARLY CHILDHOOD EDUCATION

NOTE: At Central, Early Childhood Education courses are listed under Child and Family Studies (CSF) page 214.

See also Education, page 235.

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 Early Childhood Education**

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN **Watch Technology**

NAME TO PREFIX

Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

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 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 Children

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 (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 (2-8) N
Connecting to Children

The 4 modules listed on page 107 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 (2-18) N
Creating the Conditions for Learning

The modules listed on page 107 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 & Design

Presents methods for developing a sense of competence and enjoyment in exploring cognitive-mathematical activities in children ages 3–5. 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 (1-6) 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 Education

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 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 200 (3) N
Children & 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 204 (2) N
Autism & 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 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 (3-4) 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**Multicultural 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 261 (1-6) N**Reading 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 292 (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.

ECED& 105 (5) 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, and 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 (2) C,N**Practicum 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& 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& 136 (3) C,N**School-Age Care**

Develop skills to provide developmentally appropriate and culturally relevant activities and care, such as preparing the environment, implementing curriculum, building relationships, guiding academic/social skill development, and community outreach. 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.

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**

Covers resource allocation and income distribution with emphasis on price determination, production costs and market structures. Application of economic reasoning to public issues and business. Prereq: MATH 098. Recommended: ENGL& 101.

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.

ECON 298 (1-5) C,N,S**Special Topics in Economics**

Independent study or field work in selected economics topics under the supervision of sponsoring faculty. Prereq: Permission.

EDUCATION

Also see *Early Childhood Education*, page 232.

EDUC& 115 (5) C,N**Child Development**

Build a functional understanding of the foundation of child development, prenatal to early adolescence. Observe and document physical, social, emotional, and cognitive development of children, reflective of cross cultural and global perspectives. Work/volunteer directly with children.

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& 136 (3) C,N**School-Age Care**

Develop skills to provide developmentally appropriate and culturally relevant activities and care, such as preparing the environment, implementing curriculum, building relationships, guiding academic/social skill development, and community outreach. Work/volunteer directly with children.

EDUC 197, 198, 199 (2-5) C,N**Education Community Service**

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) S**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,S**Exceptional Child**

Emphasizes diversity and a value-based approach to human exceptionalality 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.

EDUC& 205 (5) C**Intro to Education with Field Experience**

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, multi-cultural 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 207 (2) S**Classroom Management, Planning and Practicum**

Provides support and makes links between classroom learning and field experience in elementary education. Focuses on classroom management, planning and broader issues of teaching and learning through the case study of teaching, lesson plans, student work, and other forms of practice. Emphasizes questioning, observation, and reflection on weekly class meetings, field observations and in-class efforts at a school setting. Prereq: ENGL 098 completion and either prior completion/concurrent enrollment in EDUC& 202 or permission.

EDUC 210 (5) C**Intro to Bilingual Education – Strategies & Methods**

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 – History & Theory**

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 the Bilingual Student – Consideration for Regular & Special Ed Teachers**

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 (1-3) C**Paraprofessionals & Teachers: A Partnership**

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 Arts**

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 the Mainstream Classroom**

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 the World as a 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 Language Students**

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.

ELECTRONICS TECHNOLOGY

Includes courses in Biomedical Equipment Technology, Broadband Technology, Electronics Engineering Technology, Sustainable & Conventional Energy & Control Technology, and Telecommunications Technology.

EET 105 (2) N
Intro to Technology

Survey of the field of electronics and technology occupations. Learn the standards, practices and skills necessary for employment in electronic-related occupations.

EET 107 (4) N
Intro to Aviation Electronics

Intro and overview of aerospace manufacturing, avionics and instrumentation.

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. Prerequisite: MAT 081 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 131 (5) N
IT Essentials I – A+ Certification

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

Intro to broadband cable technologies, theory and skills required for technicians working in the broadband industry, including HDTV, high speed internet and telephony. Training is adopted from the Society of Cable and Telecommunications Engineers (SCTE) with input from local cable providers.

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 Applications

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) C,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 rigors of math found in standard course offerings.

EET 161 (5) C,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
AC Principles of Electronics

AC theory and fundamental principles as applied to electricity, electrical, and electronic terms and units; Intro to AC measuring devices, circuits and circuit analysis. Prereq: EET 161..

EET 163 (5) N
Solid State Electronics I

Analyze characteristics of semiconductor devices and their application in common electronic circuits. Covers construction of simple power supplies and more complex amplifier circuits and regulators. Includes construction and measurement of devices and circuit parameters to verify math analysis of circuits designed. Prerequisite: EET 161.

EET 165 (5) N
Analog Circuits & Devices I

Explanation of the op amp, its nomenclature, IC package pin identification, characteristics and parameters. Prereq: EET 163.

EET 166 (5) N
Analog Circuits & Devices II

Further study of common analog devices, circuits and subsystems in the fields of communication and industrial controls. Prereq: EET 165 or equivalent.

EET 170 (5) N
Digital Circuits I

Fundamentals of digital electronics and interface circuits. Covers number systems, logic gates, DeMorgan's theorem, Karnaugh mapping, flip-flops, and counters. Prereq: EET 161.

EET 171 (5) N
Digital Circuits II

Covers logic fundamentals, logic IC families and their characteristics, logic controls, and associated circuitry. Includes construction of logic control circuits and measurement of circuit parameters and functions. Examines logic numbering systems, Boolean algebra, detectors, combinational logic, ADA converters, memories and registers, and intro to microcomputers and microprocessors. Prereq: EET 170.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN **Watch Technology**

NAME TO PREFIX

Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

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 II

Continuation of telephony: apparatus, plant design, network design, traffic planning, private networks, data systems, distribution of switched networks. Lab. Prereq: EET 241.

EET 243 (5) N
Principles of Telecommunications III

Basic switched telephony: telephone apparatus and plant design, switched network designs and network traffic planning of switched and private switched networks. Lab. Prereq: EET 242.

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 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

Describes the issues unique to working in the healthcare environment, 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. Prereqs: EET 114, 161, 162, 165, 166, AHI 100, BIOL 128 and CHEM 121.

EET 287 (12.5) 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 (1-4) 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 Externship

Placement in a clinical engineering department or equipment manufacturer for >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 (1-5) C,N
Special Topics in Electronics Technology

Selected topics in electronics technology. Prereq: Permission.

**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

Mechanical Engineering Technology

MSC 101 (5) N
Intro to Material Science

Intro to the molecular structure of different materials and the resulting effects in tensile strength and heat transmission. Emphasis on semiconductors and applications to electronic devices. Prereq: PHYS& 122 and PHYS 118, CHEM& 121 or equivalent; and MATH 120 or equivalent; or permission.

MET 102 (3) S
Creative Technical 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 180 (15) S
Electronic Assembly (Short Term Training)

Intro to wire harness construction, mechanical assembly and soldering skill for “through hole” and SMT. Includes small electric motor assembly, soldering of various terminals, wire tinning, passive and active components, integrated circuits and other special devices. Emphasis on component removal techniques through hole printed circuit boards, surface mount technology and basic soldering processes.

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**Technical Strength of 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 298 (1-10) S**Special Topics in Mechanical Engineering**

Special topics for individual or group study in the mechanical engineering technology field. Prereq: Permission.

Engineering (Pre-major)**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**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 Engineering**

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,S**Computer Programming for Engineers**

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& 141 (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 (5) S**Plane Surveying**

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 Material Science**

Survey of materials used in engineering. Covers physical and chemical principles related to structure, properties and engineering applications. Studies include metals, alloys, semiconductors, polymers, ceramics and composites. Prereq: CHEM& 161.

ENGR 171 (1) S**Material Science Lab**

Practical application of the terminology of engineering materials and of methods used to solve materials problems. Experiments expand on ENGR 170. Includes a tour of an industrial materials testing lab. Prereq: ENGR 170.

ENGR& 204 (5) C,N,S**Electrical Circuits**

Covers basic circuit and systems concepts. Includes resistors, sources, capacitors, inductors and operational amplifiers. Includes solution of first and second order linear differential equations associated with basic circuit forms. Prereq: PHYS& 222 and MATH& 152.

ENGR& 214 (5) C,N,S**Statics**

Covers statics, Newton's Laws, resultants, force systems, equilibrium diagrams, analysis by vector algebra of two- and three-dimensional structures, frames, machines, trusses, beams and friction. Prereq: MATH& 152 and ENGR 140 or PHYS& 221.

ENGR& 215 (5) C,N,S**Dynamics**

Studies motion and the forces which affect the motion, including rectilinear motion, curvilinear motion, plane motion, dynamic force analysis, work and energy, impulse and momentum. Prereq: ENGR& 214 with a 2.5 or better and MATH& 152.

ENGR& 224 (5) C,N,S**Thermodynamics**

Intro to thermodynamics from a macroscopic point of view. Development of the laws of thermodynamics and application to energy transformations and state changes. Prereq: MATH& 153, PHYS& 222 and CHEM& 161.

ENGR& 225 (5) C,N,S**Mechanics of Materials**

Covers basic relationships between axial, torsion, bending and shear loads acting on solid elements such as rods, shafts, columns and beams and their allowable stress, strains and deformations, Mohr's circle of stress. Prereq: ENGR& 214 and MATH& 152.

ENGR 240 (5) N**Intro to Numerical Methods**

Covers numerical solutions to engineering problems using modern scientific computing tools. Includes intro to MATLAB programming, matrix algebra, finding roots, curve-fitting, integration, differential equations. Prereq: MATH& 152 and CSC 110.

ENGR 271 (6) S**Fundamentals of 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.

ENGLISH

See *Languages & Literature*, pages 263-270.

ENGLISH AS A SECOND LANGUAGE

See *Languages & Literature*, pages 267-270.

ENVIRONMENTAL SCIENCES**ENV 150 (5) C,N,S**
Environmental Issues & Problems I

Covers natural principles governing operation of the environment including interactions between humans and the environment, emphasizing attitudes and actions to maintain a healthy ecosystem.

ENV 160 (5) C,S
Principles of 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 ENG& 101 and MATH 084.

ENV 170 (5) C,N,S
Energy & Resources: Now & 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.

ENV 197 (5) C
Internship in 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.

ENV 200 (2) C
Sustainable Food Systems Employment 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 or permission.

ENV 201 (5) N,C
General Ecology

Covers the nature of ecosystems, energy flow, bio-geochemical cycles, population dynamics, organization and dynamics of communities and identification of environmental problems.

ENV 202 (5) C,S
Principles of 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: Eligibility for ENGL& 101 and MATH 084 or permission.

ENV 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.

ENV 204 (5) C
Intro to Soil Science Restoration Conservation

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 and ENGL& 101; recommend ENV 202.

ENV 205 (3) C,N,S
East African Bio-Cultural Ecology

For educators interested in developing classroom materials based on topics and areas covered by the East Africa Study and Travel Program. Field trip.

ENV 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 and ENGL&101 or permission; ENV 202 and 204 recommended.

ENV 208 (5) C
Ecosystem Science Management

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.

ENV 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 and ENGL& 101 eligibility or permission.

ENV 216 (5) C
Sustainable Urban Food Production

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.

ENV 221 (5) C,N,S
Nuclear Choices

Covers nuclear-generated electricity, nuclear waste, and nuclear weapons, including those existing and those proposed for the near future. Explores possible defenses against nuclear war and ways to avoid it. Writing class.

ENV 294 (2) C
Sustainability Seminar Series

Explores sustainable development and invites speakers to demonstrate how they apply sustainable principles to their field of work.

ENV 298 (1-5) C,S
Special Topics

Seminar of selected topics and/or activities. Prereq: Variable, dependent on topic.

ENV 299 (1-5) C,S
Special Problems

Independent study of approved topics in environmental sciences. Prereq: Permission.

**EXPANDED FUNCTION
DENTAL AUXILIARY**

Prereq: Acceptance into the EFDA program.

EFDA 100 (1) C
Procedures I

Reviews and reinforces the duties and skills of a dental assistant: oral hygiene instructions, radiographs, coronal polishing and fluoride treatments. Covers final impressions. Perform many of these procedures under "general" rather than "close" supervision of a dentist.

EFDA 101 (3) C
Restorative Lab I

Pre-clinical lab course. Practice skills and techniques on dentoforms and classmates. Clinical skills include radiographs, coronal polishing, fluoride treatments, use of dental materials, actual placement of amalgam and composite restorations on prepared typodont teeth, and taking final impressions on typodonts.

EFDA 110 (2) C
Dental Coronal Anatomy

Covers dental anatomy related to the EFDA's scope of restorative practice: tooth morphology, anatomical features and function. Emphasizes coronal anatomy, occlusion, Black's classification of cavity preparation and basics of primary and permanent dentition.

EFDA 111 (2) C
Dental Materials & Technique

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 & 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, pages 262-273.

FRENCH

See Languages & Literature, page 271.

**GENERAL EDUCATIONAL
DEVELOPMENT****GED 050 (1-15) C,N,S**
Basic GED Preparation – Level 5

Prepares learners to pass successfully any two of the four GED subject areas.

GED 051 (1-15) C,N,S
Basic GED Preparation Math – Level 5

Prepares learners to pass successfully the GED Math test.

GED 052 (1-15) C,N,S
Basic GED Preparation Communications – Level 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,N,S
**Basic Computer-Assisted
GED Preparation – Level 5**

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
Advanced GED Preparation – Level 6

Prepares learners to pass successfully the remaining GED tests needed to complete the official GED certificate.

GED 061 (1-15) C,N
Advanced GED Preparation Math – Level 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
Advanced GED Preparation Communications – Level 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,N
**Advanced Computer-Assisted
GED Preparation – Level 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

GEOGRAPHY**GEOG& 100 (5) C,N,S**
Intro to Geography

Intro to major concepts of geography, including patterns of human occupancy, analysis of population, settlement, resource use and environmental concerns.

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,S
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,S
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,S
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,S
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,S
Special Topics/Geography

Independent study in selected geography topics under faculty supervision. Prereq: Permission.

GEOLOGY**GEOG& 101 (5) N,C,S**
Physical Geology

Covers the origin and development of minerals and rocks, changing features of the Earth's crust and the processes that have shaped these features. Lab included. One field trip may be required.

GEOG& 103 (5) N,S
Evolution of the Earth

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. One field trip may be required.

GEOG 104 (5) N
Intro to Remote Sensing/GIS

Covers the fundamentals of ArcView and satellite remote sensing and the basics of using a geographic information system (GIS) to analyze and draw conclusions about the geology of Seattle and larger areas. Lab. Prereq: GEOL& 101, or PHYS& 123, or CHEM& 162, or equivalent or permission.

GEOG 105 (5) C
Introductory 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.

GEOG 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.

GEOG 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.

GEOG& 110 (5) N,C,S
Geology & the Human Environment

Focus on the effects of geologic processes and materials on human activity and vice versa. Emphasizes awareness of geologic aspects of our everyday environment including problems, formulation, and evaluation of solutions. Lab included. Up to three field trips may be required.

GEOG 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.

GEOG& 115 (5) N,S
Geology of the National Parks & Monuments

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.

GEOL 118 (1) N,C**Volcano Field Day**

Intro to the origin and destruction of the Cascade volcanoes such as Mount St. Helens, Mount Rainier and Glacier Peak. Includes five hour lecture and one day field trip. Lab credit. Also offered as SCI 118.

GEOL 202 (3) N**Geology & Human Environment: East Africa**

Cenozoic geologic evolution of East Africa with specific emphasis on the origin of the East African Rift Valleys and their relation to the evolution of early hominids.

GEOL 207 (5) N**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.

GEOL& 208 (5) C,N**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 272.

GRAPHIC DESIGN**DES 110 (3) C****History of Graphic Design**

Overview of graphics design from the earliest forms of writing to the digital present. Covers prominent individuals and epochs, the development of the Roman alphabet, illuminated manuscripts and the advent of printing in the 15th century.

DES 114 (3) C**Media Publishing I – Digital Assets**

Intro to the Macintosh, the Mac OS and its functions. Learn Photoshop and Illustrator (part of Adobe's Creative Suite). Understand and use the Mac computer and Adobe software for web content, print content and for mobile devices by preparing digital assets such as wireframes, logos, images.

DES 115 (3) C**Media Publishing II – Digital Publishing**

Use the Mac computer to create functional layouts and prototypes for print, web and mobile devices.

DES 121 (3) C**Typography I**

Learn basic principles of micro typography, including the anatomy of letters, adapting letter forms, letter and word spacing, line spacing, and simple hierarchy of text. Create expressive typography.

DES 122 (3) C**Typography II**

Focuses on using the grid for page construction. Explores page structure and hierarchy principles and grid systems.

DES 131 (3) C**Graphic Design I**

Intro to the terminology, process and social context of graphic design. Experiment with building visual ideas using both traditional image-making techniques and digital technology.

DES 132 (3) C**Graphic Design II**

Intro to color and its application to design, including the mechanics of light, the physiology of vision and the psychology of color. Study ways color is used in culture and methods designers employ in making their work effective.

DES 133 (3) C**Graphic Design III**

Covers the design of packaging: three-dimensionality, marketing insights and innovations in technology. Study consumption and how packaging communicates to consumers. Projects may include soda bottles, folding box packages and a line of products, with high quality mockups.

DES 145 (3) C**Graphic Production I**

Intro to the basic skills, concepts and techniques of successfully using the vector-based graphics program Adobe Illustrator.

DES 146 (3) C**Graphic Production II**

Intro to the basic skills, concepts and techniques of successfully using the page layout program Adobe InDesign.

DES 147 (3) C**Graphic Production III**

Intro to the basic skills, concepts and techniques of successfully using the pixel-based program Adobe Photoshop. Learn to color correct a photo using curves and levels, create a non-destructive work flow and select the correct tool for the job.

DES 151 (3) C**Interactive I**

Learn to design interfaces such as websites, mobile devices, kiosks, computer applications. Study the differences between screen-based media and print-based media.

DES 152 (3) C**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) C**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 (2-5) C**Work Experience – Graphic Design**

Earn work experience credit in Graphic Design. Prereq: Permission.

DES 223 (3) C**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) C**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 233 (4) C**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) C**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) C**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) C**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 249 (4) C**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 251 (4) C**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 252 (4) C**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 253 (4) C**Interactive VI**

Covers User Experience (UX) design, rapid prototyping, usability testing, and Interface design challenges for smaller screens. Create animated mock-ups of mobile applications and build functional websites with HTML5 and CSS3 media queries.

DES 260 (4) C**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 270 (4) C**Environmental Graphics**

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 280 (4) C**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 281 (4) C**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) C**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 299 (1-5) C**Independent Study**

Independent study on selected graphic design topics.

HEALTH**HEA 025 (5) S****Health**

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 & 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.

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: MATH 084, ENGL& 101.

HEA 226 (2) C**Advanced Global Health**

Self-directed study, including research and presentation, of an area of global health. Prereq: HEA 225 or MATH 084, ENGL& 101 and permission.

HEA 228 (5) C**Water, Gender & 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.

HEALTHCARE SERVICES & MANAGEMENT**Bachelor of Applied Science in Allied Health – Healthcare Services & Management Track**

Students must be accepted into the program in order to take these courses. Courses are under development at time of printing. Please contact the Allied Health Division and/or check on the website for further information.

HEATING, AIR CONDITIONING & REFRIGERATION DESIGN/ HVAC TECHNOLOGY**HVC 101 (5) N****Essentials of HVAC**

First HVAC Learning Solutions course on fundamental principles of heating, ventilation, and air conditioning (HVAC). Covers safety, basic refrigeration, electricity, combustion and venting, air distribution and indoor air quality (IAQ).

HVC 210 (5) N**Cooling & Heating Systems Installation**

Second HVAC Learning Solutions course on basic theory and design of heating and cooling systems with an emphasis on the installation of furnaces, air handlers, AC refrigeration, heat pumps, air distribution systems and refrigeration piping. Covers electrical wiring for equipment and control systems Prereq: HVC 101.

HVC 211 (5) N**Cooling & Heating Systems Service 1 & 2B**

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**Cooling & Heating Systems Service 2A & NATE Preparation**

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 (5) 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 the link between building science and business science.

HVC 221 (5) N**Basic Maritime HVAC**

Learn to work with multi-brand marine refrigeration and HVAC & Refrigeration 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.

HISTORY

NOTE: (History 035 - 091 series fulfills high school completion requirements.) Prereq: Appropriate placement on English and Basic Skills tests.

HIST 035 (5) S
U.S. History I

Reviews the significant contributions of the Colonial period, emphasizing political and constitutional developments from the American Revolution through Reconstruction. Emphasis on the Constitution and causes and consequences of the Civil War. Includes contributions and achievements of the Native American population.

HIST 036 (5) S
U.S. 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 (3-5) S
Washington State History

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 040 (5) S
History Research

Studies the purposes and methods of historical research including choosing a topic, gathering data, taking notes, writing a research paper, footnoting and developing a bibliography.

HIST 095 (3) S
History of Asian Immigration to the West Coast

Covers the major Asian populations who have come to the U.S. and particularly to the Northwest.

HIST 099 (3) S
Intro to American Civilization

Intro to American history, government and culture for students educated outside of American schools. 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

HIST 105 (3-5) C,S

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 U.S. History

Survey of American history from pre-colonial to the present with emphasis on political, social, cultural and economic developments.

HIST 108 (5) N

The World in Evolution to 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 History of Africa South of the Sahara

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 (1-2) C,N

Seattle 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,S

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,S

U.S. History I

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,S

U.S. History 2

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

American Women's 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 & 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

U.S. History I

Study of the United States in its formative period from its European, African and native pasts, tracing its development from origins to early nationhood. Emphasis on the 1700s.

HIST& 147 (5) N,C,S

U.S. History II

Examines changes shaping American society in the 1800s: sectionalism, the Civil War, the westward movement, industrialization and emergence of the United States as a world power. Emphasizes social conflicts, including abolitionism, women's rights, labor, manifest destiny and Reconstruction.

HIST& 148 (5) C,N,S

U.S. History III

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,S

Multicultural Experiences in the U.S.

Focuses on experiences of selected people of color in America. Emphasizes historical and contemporary development, including sociological and psychological aspects.

HIST 191 (5) C
Biography in 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,S
Critical Issues for the 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,S
Russian History & Culture

Focuses on political, cultural and social life, stressing continuity and change from pre-revolutionary Tsarist Russia to the 1990s.

HIST 210 (5) C,N,S
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 themes, and the region's changing roles within the context of national and global developments. Prereq: Eligible for ENGL& 101 or permission.

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 in the 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-Colombian 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 241 (5) S
History of Southeast Asia

Survey from pre-history to the present of the countries of contemporary Southeast Asia: Brunei, Burma, Indonesia, Kampuchea, Laos, Malaysia, Philippines, Singapore, Thailand and Vietnam.

HIST 242 (5) S
The Vietnamese-American War

Examines the war in Southeast Asia, 1945-1975, from multiple angles through narratives, perspectives and interpretations of the war. Focuses on themes such as protagonists and victims, concepts of winning and losing, popular re-imagining and memorializing the war.

HIST 251 (5) N,S
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 (nation-states, bureaucracies) and ideologies (anti-Semitism, scientific racism, nationalism) illuminates the meaning, impact and legacies of the Holocaust.

HIST 273 (5) N
Women of the 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 in History

Independent study in selected history topics under faculty supervision. Prereq: Permission.

HIST 299 (3-5) C,N,S
Special Problems in History

Small class format to study and discuss selected topics in history. Prereq: Permission.

HOSPITALITY 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 (3) 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 personnel. Presents concepts of yield management and revenue management in depth.

HMG 312 (3) S**Legal Issues in 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 in Travel & Tourism**

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 (3) 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 (AHLA).

HMG 411 (3) S**Human Resources Management**

Policy and practice of human resources utilization: selecting, training, motivating, evaluating and compensating employees; labor relations; EEO legislation.

HMG 412 (5) S**Services 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 (3) 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 096 (3) S**The College Puzzle – Understanding How the Pieces Fit**

Intro to college life to assist individuals in understanding how the academic system works. Develops the basic skills and understanding necessary for active participation in all phases of the college experience.

HDC 100 (1-3) C,N,S**Career Planning**

Intro to a systematic approach to help the individual 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**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**Self-Awareness Through Critical Thinking & Problem-Solving**

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) S**Interviewing, Résumés, Job-Hunting & Employee/Employer Interaction**

Focuses on the development of cover letters, résumés, interviewing skills and job-hunting strategies.

HDC 111 (1) C**Math Study Strategies**

Emphasizes overcoming past negative math experiences and math anxiety, finding individual learning strengths, efficiency in reading a math textbook, taking math lecture notes, successful math test taking, and finding appropriate math tutors, instructions and resources.

HDC 112 (1) C**Managing Time & 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**Reading & Textbook 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**Listening & Lecture Note-Taking Strategies**

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 & Anxiety Management**

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 (1-3) 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 (3-5) C,S**Intro to Leadership Theory & 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 Strategies for Math Success**

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 (2-3) C**Leadership Practice & Application**

Combines student experience such as serving on a college off-campus committee, or active involvement with student organizations or student government with workshops and seminars on leadership and career skills.

HDC 199 (1-3) C,S**Independent Study**

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. Strengthen critical thinking and leadership skills. Prereq: Permission.

HDC 200 (1-3) C,S**Orientation to Success in the American College**

Provides international students with the knowledge and skills for success in American community colleges.

HDC 294 (1-2) C**Individualized Career Development**

Designed to help students develop goals by developing awareness of their own patterns of aptitudes, interests and personality traits. Career counseling session, writing assignments, career research and assessment help develop self-awareness through self-evaluation. Independent study with a counselor. Prereq: Counselor's signature.

HUMANITIES**HUM 104 (5) C,N****Visual Thinking & Communication Skills**

Intro to thinking in images to release creativity; using the right brain in concert with the left brain; the focusing power of relaxed attention; idea sketching to generate, express and record ideas; use of new problem-solving strategies for problems defying usual solutions. Prereq: Placement in ENGL 098 or higher.

HUM 105/ISP 105 (5) C,N**Intercultural Communication**

Interdisciplinary focus on the role of languages and culture in effective intercultural communication including values, patterns, history and attitudes that create and sustain cultures. Emphasis on skills and empathy gained from the study of diverse cultures through literature, theory and guest lecturers.

HUM 110 (3-5) C,N,S**Intro to Film**

Examines Hollywood film-making as an art form, a business and a shaper of culture. View, discuss and critically analyze classics, features and documentaries for increased understanding of literary and artistic elements. Covers the impact of films on personal experience, American culture and the world.

HUM 111 (5) S**Critical Thinking & Ethics in the Workplace**

Intro to critical thinking, logic and scientific reasoning with applications to other courses, everyday life and work. Relates directly to the programs of study and future careers of technical education students.

HUM 112 (5) C,N,S**Responsibilities & Rights in a Free Society**

Examines individual rights and responsibilities in a free society in the practical context of an individual's roles as a citizen and resident of various levels of government, family member and employee or employer. Distinguishes between legally enforceable rights and obligations and the relationship between responsibilities and legal authority. Adds values to the critical thinking process.

HUM 113 (5) S**Applied Esthetics**

Development of an esthetic approach to technology and the world of work. Explores concepts of quality, beauty, good design and a good work environment from a variety of viewpoints including philosophical, multicultural, psychological, economic and technological.

HUM 114 (5) S**Life Cycles of Technology**

Provides insights into the nature of the life cycles of businesses, products, materials and processes by using the techniques of research, analysis and writing of history.

HUM 115 (3) S**Perspectives of the Chinese Garden**

Overview of the history, meaning and significance of Chinese gardens. Covers art, poetry and architecture; language and calligraphy; the influence of Confucianism, Daoism and Buddhism; native flora and geography; plants and their symbolism; principles and styles of Chinese garden design; and the place of the Chinese garden in the world today.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

HUM& 116 (5) C,S
Humanities I

Covers significant movements in Western culture and values through major works of art, drama, literature, philosophy, music, architecture and language. From historical and political writings, learn of the forces affecting the humanities, from the beginning of civilization to the fall of the Roman Empire.

HUM& 117 (5) C,S
Humanities II

Continuation of HUM& 116. Covers the age of Charlemagne to the Enlightenment.

HUM& 118 (5) C,N,S
Humanities III

Continuation of HUM& 117, from the French and American Revolutions to contemporary issues. Recommended: Placement in ENGL& 101 or ENG 101 (N).

HUM 120 (5) C,N,S
Intro to Asian Cinema

Survey of cinema of Asian and Asian Pacific Islander countries, including but not limited to Japan, China, Hong Kong, Taiwan, Korea, Vietnam, Cambodia, Philippines, Samoa, India and Iran. Course satisfies API Emphasis AA requirement at South. Prereq: Placement in ENG& 101.

HUM 125 (5) C
Hip-Hop Theory & Culture

Identifies and critically examines the theoretical foundations of hip-hop culture and rap music, the evolution of hip-hop philosophy and the community from which it originated. Analyzes the influences that the background, music and style of the hip-hop generation have upon a multicultural nation and world. Prereq: ENGL& 101.

HUM 130 (5) C,N,S
World Cinema

Survey of 20th and 21st century international films and filmmakers from around the globe. Analyzes how film themes are conveyed through narrative and style. Examines cinema as an art form that represents and influences social, political and cultural movements worldwide. Prereq: Eligible for ENGL& 101.

HUM 135 (5) N
History of Film

Historical overview of the origins and development of world cinema from 1900 to the present. Examines the various influential directors, major film movements, and national cinemas that have most influenced world cinema. Prereq: ENGL& 101 placement.

HUM 140 (5) N
Transnational Cinema

Examines films from at least four non-Western cultures as means of storytelling, as art form, and as commercial product. Covers financial, political, and ideological conditions of the making and reception of these films. Considers how globalization and post colonialism are reflected in these films and how Western viewers and critics understand and value them.

HUM 145 (5) C,N,S
Film Genres

Study of a particular film genre through a theoretical lens to discover its historical and cultural roots, significance and context.

HUM 149 (2) C
Ways of Learning

Students study and write about their learning and learning styles. Keep journals, describe and analyze their past, present and planned education. Assess their education in other classes and prepare exit assessment projects.

HUM 150 (5) C,S
Ways of Knowing

Students study self-assessment or self-evaluation by writing and talking about their own education. Includes a study of learning styles and an exploration of individual learning styles.

HUM 155 (5) C
Sports & Culture

Provides a forum for critical analysis with multiple perspectives of the cultural framework of sports and the sports world. Includes dynamics in sports related to social issues such as race, class, gender and oppression.

HUM 160 (5) C,N,S
Asian Written Traditions

Intro to written traditions in philosophy, religion, history and literature of East and South Asia. Emphasis on original texts in translation in relation to social and cultural background. Recommended: ENGL& 101 placement.

HUM 187 (1-3) C
Information Resources in Humanities

Explores political, economic, and cultural aspects of information related to creativity and intellectual life and the extent to which human expression is affected by the information age. Examines various strategies for identifying, locating, evaluating and applying information resources that affect the human experience.

HUM 189 (3) C
Using Learning

Students complete a portfolio project evaluating their own learning, create a product that reflects that evaluation and apply the learning to future goals outside the college.

HUM 197 (2-8) C
Work Experience – Humanities

Earn work experience credit in the humanities field. Prereq: Permission.

HUM 200 (5) C,N,S
Reading the Media

Examines the way cultural identities are constructed by and represented in contemporary media such as film, television, radio and newspapers. Prereq: Placement into ENGL& 101 (N).

HUM 210 (5) C,N,S
Gay & Lesbian Studies

Intro to various complex historical, social and cultural issues surrounding gay and lesbian experience. Multi-disciplinary examination of coming out, gay identity and gay culture, gender issues, bisexuality, transgender identity, AIDS and gay rights. Uses fiction, poetry, autobiography, history, essays and plays. Looks at representations of gays and lesbians in film. Prereq: Placement into ENGL& 101.

HUM 234 (5) N
Chinese Society & Thought

Covers concepts of Chinese civilization from the earliest days to the present. Emphasis on morality-based political philosophy of Confucianism with other conflicting or complementary views of people, nature, society and state.

HUM 235 (5) C
**Holocaust Literature:
Voices From the Holocaust**

Examines literature written by survivors of the Holocaust or the Shoah. Read accounts by people who survived to write and publish their memories. Meet one of the authors. Develop an historical context for World War II and the rise of Nazi Germany. Use the context of events to understand the literature.

HUM 261 (5) N,S
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
**Sequential Art: History & Criticism of
Comic Book & Graphic Novels**

Graphic, sequential storytelling offers an attractive and convenient opportunity to study visual language. Surveys the history of comic books and graphic novels, using several theories of visual communication to enhance visual literacy. Study cartoonists' works as channels of human expression and as evidence of changing and differing cultural conditions.

HUM 289 (5-10) C
**Chinese Language through
Experiential Activities**

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 (5-10) C
**German Language through
Experiential Activities**

See course description listed for HUM 289.

HUM 291 (5-10) C
**Spanish Language through
Experiential Activities**

See course description listed for HUM 289.

HUM 292 (5-10) C
**French Language through
Experiential Activities**

See course description listed for HUM 289.

HUM 293 (5-10) C
**Italian Language through
Experiential Activities**

See course description listed for HUM 289.

HUM 294 (1-5) C,S
Independent Projects in Humanities

Independent projects based on humanities research. Prereq: Permission.

HUM 295 (2-5) C
**Independent Projects in Humanities
(For Teachers Only)**

Curriculum practicum for teachers. Prereq: Permission.

HUM 296 (2-5) C
**Independent Projects in Humanities
(For Teachers Only)**

Continuation of HUM 295 or independent curriculum project on a different topic than that studied in HUM 295. Prereq: Permission.

HUM 297 (5-10) C
**Japanese Language through
Experiential Activities**

See course description listed for HUM 289.

HUM 298 (5-10) C
**Portuguese Language through
Experiential Activities**

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 (2) 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.

**INDUSTRIAL MANUFACTURING
TECHNOLOGY****INT 100 (3) S**
Overview of 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

Gain industry-relevant knowledge for work in a diversified manufacturing environment. Covers Newton's Law, pressure awareness, energy, force, torque, and gas laws. Intro to basic electricity and electron flow/charge, circuits, DC & AC, generation and safety practices.

INT 108 (3) S
Intro to Blueprint Reading For Construction

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 & Traffic Control

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
Manufacturing Tools & 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.

INT 125 (5) S

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.

INT 130 (5) S

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.

INT 155 (5) S

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.

INT 160 (5) S

Intro to Safety & Health

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.

INT 161 (5) S

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.

INT 162 (5) S

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.

INT 165 (3) S

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.

INT 180 (3) S

Intro to Composites

Intro to materials science. Learn the properties and processing of solid materials used in manufacturing. Covers composite materials in general and focuses on a variety of materials used in manufacturing, including ceramics, metals, and fiber reinforced polymer composites. Learn the properties and manufacturing techniques of composite fabrications.

INT 197 (1-10) S

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.

INT 210 (3) S

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.

INT 215 (5) S

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.

INT 220 (5) S

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.

INDUSTRIAL POWER & CONTROL TECHNOLOGY

See Electronics courses, page 236.

INFORMATION TECHNOLOGY

Also see Computer Science, Computing Technology and Network Technologies.

NOTE: Eligibility for ENGL& 101 is recommended.

Most Information Technology courses require a computer lab fee. Contact the division office for specific fee information.

IT 100 (5) N

Intro to Computer Systems & Networks

Covers the basics of computers and networks.

IT 101 (5) N

Software Applications

Focuses on word processing, spreadsheets, database applications, web security and publishing information on the web.

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 104 (1) N
Using Computers

Provides current computer and software instruction to enhance the use of technology in a variety of fields. Topics may be chosen to supplement content in another course (creating research papers for English, spreadsheets for Accounting or databases for Allied Health) or to advance the student's own personal technology skills. May be repeated for a total of 5 credits.

IT 111 (5) N
Internet & Web Authoring Using HTML

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 115 (5) N
Intro to Object-Oriented Programming

Intro to problem-solving and object-oriented programming techniques using the Java programming language. Prereq: IT 106 and IT 111.

IT 120 (5) N
Network Essentials CompTIA Network +

Understand local area networking information in Microsoft courses on workstations and networking. Intro to current networking technology for local area networks (LANs), wide area networks (WANs) and the Internet. Prereq: EET 131 or permission.

IT 122 (5) N
Network OS 1 – Windows Client

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. Prereqs: EET 131, IT 120 and 142 or permission.

IT 124 (5) N
Network OS 2 – Windows Server

Continuation of IT 122. Provides support professionals with skills to install, configure, customize, optimize, network, integrate and troubleshoot Windows 2000 Pro. Prereq: EET 131 or IT 122 (IT 122 may be taken concurrently) or permission.

IT 125 (5) N
Using Structured Query Language & 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 techniques 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 Network Infrastructure

For those new to Microsoft Windows 2008 Server and responsible for installing, configuring, securing, managing and supporting a network infrastructure using Microsoft Windows 2008 Server. Provides knowledge and skills for designing a Microsoft Windows 2008 Active Directory Services infrastructure. Prereq: IT 122 or permission.

IT 128 (5) N
Network OS 4 – Windows Active Directory

Learn to plan, implement, secure, and manage a Microsoft Windows 2008 Directory Services in an enterprise environment. Prereq: IT 126 or permission.

IT 134 (5) N
Network Communications – TCP/IP

Learn to setup, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on major operating systems used on computers in the networked environment. Prereq: IT 124 (may be taken concurrently) or permission.

IT 135 (5) N
Intro 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
Network Management – Unix Shell Scripts

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 138 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 149 (5) N
Operating System Security

Learn to secure critical network systems properly and audit a network to determine where network weaknesses are before an attacker finds them. Study operating system security concepts and techniques and examine theoretical concepts that make the world of security unique. Prereq: IT 124 or IT 138.

IT 150 (5) N
Network Security Fundamentals

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

IT 151 (5) N
Network Defense

Second course of the first-level certification for the Security Certified Network Professional focused on understanding the architecture for Network Defense. Examines defending the network, including firewalls, intrusion detection systems, analysis of the intrusion signatures, virtual private networking and performing risk analysis. Learn how these technologies may be used to create a layered defense for the network. Prereq: IT 150 or permission.

IT 154 (5) N
Internet Security Acceleration Server

Learn to deploy and manage Microsoft Internet Security and Acceleration (ISA) Server in an enterprise environment. Prereq: IT 124 or permission.

IT 156 (5) N
Designing a Secure Network for a WIN2K Network

Use Microsoft Windows technologies to design a security framework for small, medium and enterprise networks. Four units describe securing specific areas: for local network users, remote users and offices, between private and public networks and to partners. Prereq: IT 124.

IT 160 (5) N
Wireless LAN Fundamentals

For IT professionals in organizations concerned with introducing wireless local area network to their Internet. Addresses the needs of IT program students who require insight into the wireless local area network on existing networks, applications and security.

IT 162 (5) N

Java I

Master the fundamentals of object-oriented programming using Java. Write stand-alone console and Swing applications. Translate object-oriented designs into applications. Prereq: IT 115.

IT 168 (5) N

Graphics for the Web

Use computer graphics applications to create and optimize images for the web, develop composites for websites and implement complex web layouts. Intro to web graphic file formats, compression, typography and web-safe colors. Covers basic elements and principles of design and uses several industry-standard graphics applications, level tools and techniques. Prereq: IT 106, IT 111.

IT 172 (5) N

Visual Basic I

Intro to object-oriented, event-driven programming using Visual Basic.Net. Create stand-alone Windows applications and front ends to databases. Includes effective interface design, VB classes, objects and events, functions and sub procedures, creating multiple form applications, data validation and error handling and debugging techniques. Prereq: IT 115 or permission.

IT 211 (5) N

JavaScript & DHTML for Web Development

Learn the use of JavaScript and Dynamic HTML for creating websites. Manipulate and control XHTML pages with JavaScript and Cascading Stylesheets. Build web pages for independent and team assignments, using effective communication and interpersonal skills. Prereq: IT 106, 111 and 168 (IT 168 may be taken concurrently).

IT 212 (5) N

Web Server Programming Using Databases

Basic concepts, standards and technologies of web programming. Use server-side scripting for web development. Includes ASPNET and access to various server side resources, such as databases, via ADO.NET and the server file system. Prereq: IT 115 and IT 211.

IT 213 (5) N

Advanced Web Development

Covers development and analysis techniques for web professionals. Work with clients, end-users and information processing professionals to establish user specifications and develop a comprehensive website or add functionality to an existing site. Learn client-side scripting with an emphasis on JavaScript, CSS and DHTML, project management, teamwork site usability, security, administration and maintenance and new technologies. Prereq: IT 140, 162, 211 and 212 (IT 212 may be taken concurrently).

IT 217 (5) N

Web Services Using XML

Learn techniques for developing web-based distributed applications using standard languages and protocols such as XML, SOAP, WISDL, WAP, WML. Emphasizes development and use of data-centric Web Services. Manipulate database and XML data. Uses Microsoft's .NET framework. Prereq: IT 172 or IT 212.

IT 218 (5) N

Managing a Windows Network

For system administrators, network administrators and IT professionals who implement, manage and troubleshoot existing network and server environments based on the Microsoft Windows platform. Prereq: 122 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 128.

IT 224 (5) N

Exchange Server

Intro to Microsoft Exchange Server. Configure an Exchange Server; develop an infrastructure for Exchange server; choose a client installation and integration strategy; develop long-term administration and security strategies; configure message recipients; import directory data; install and configure Exchange Server clients; configure address lists and accounts using the Administrator program; configure message tracking, server locations and security; manage site security, users, distribution lists, the directory and public and private information stores; back-up and restore; configure a link monitor and server monitor. Prereq: IT 124 or permission.

IT 228 (5) N
SQL Server

For system administrators to obtain skills to become SQL Server Administrators. Covers installing, configuring and supporting SQL Server; managing storage; setting up user accounts; assigning permissions; transferring data in and out of SQL Server; and diagnosing system problems. Prereq: IT 124 or permission.

IT 236 (5) N
Database Management

Includes database concepts, environment, advantages and limitations. Includes data modeling, database design, the relational model, SQL, accessing databases programmatically and implementation of a database design using a relational DBMS. Prepare and present documentation. Prereq: IT 115 and advanced standing in IT program.

IT 242 (5) N
Cisco CCNP I

Covers advanced networking skills. Based on current industry standards and occupational analysis. Focuses on advanced routing and uses Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs). Build a scalable routed network. Prereq: IT 142, 144 and 146 or permission.

IT 252 (5) N
C#

C# is an object-oriented language built on Microsoft's .net platform and extended from C++. Learn to implement object models and understand capabilities, such as operator overloading, that sets C# apart from other object-oriented languages. Prereq: IT 102 or CSC 110 or previous programming experience strongly recommended.

IT 256 (5) N
Object-oriented Analysis & Design

Analyze and develop object-oriented business systems. Get practical experience in planning, analysis, design, test planning, documentation and project management. Become familiar with installation and maintenance issues. Develop object-oriented designs and use diagramming techniques of the Unified Modeling Language (UML) to document the work. Prereq: IT 125 and IT 162, or 272.

IT 262 (5) N
Java II

Explore the latest functionality of the Java programming language and new Java packages. Includes servlets, Java server pages, database connectivity, swing, AWT components and Java 3-D modeling. Prereq: IT 162.

IT 264 (1-3) N
Computer Information Systems Lab

Supervised information systems development. Increase competency and hands-on skill using appropriate software. May be repeated. Coreq: Enrollment in another IT course.

IT 272 (5) N
Visual Basic II

Advanced object-oriented, event-driven programming using Visual Basic.Net. Covers using built-in utility classes, using custom classes and interfaces, inheritance, polymorphism, error handling, database programming, multiple-document interfaces and additional graphical components. Prereq: IT 115 and IT 172 or permission.

IT 290 (1-6) N
Independent Studies or Internship

Provides advanced students with research opportunities or work experience in computer information systems. Variable credits. Prereq: Advanced standing and permission.

IT 296 (1-5) N
Network Technology 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 (2-5) 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.

ITC 102 (3) C
Information Systems Concepts

Intro to computers and information systems, including hardware, software, data organization, data communications, systems development and the evolving role of computers in society.

ITC 110 (5) C
Programming Concepts & Fundamentals

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: MIC 101 or equivalent and eligible for MATH 098.

ITC 115 (5) C
Object Oriented Programming

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 or with 2.0 or higher.

ITC 134 (5) C
Computer Operating Systems

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: MIC 101; ITC 140 with 2.0 or higher as prereq or coreq or permission.

ITC 136 (5) C
Linux/Unix Operating Systems

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: MIC 101 with 2.0 or better, or previous computer work, or permission.

ITC 140 (5) C
Intro to Computer Hardware

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: MIC 101 or ITC 102 or equivalent.

ITC 151 (5) C
Intro to Network Security

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.

ITC 162 (5) C
Java 2 with Intro to Android

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.

ITC 172 (5) C**Visual Basic with ASP.NET**

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.

ITC 197 (3-5) C**Work Experience in Information Technology**

Earn work experience credit in the computer field. Prereq: Permission.

ITC 200 (4) C**User Experience Design**

Studies how the user experience dictates the design, functionality, features and content of a website to successfully achieve the client's business goals. Prereq: WEB 120 with 2.0 or better.

ITC 210 (5) C**Advanced Web Development**

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: ITC 280 with 2.0 or higher.

ITC 216 (5) C**Programming for the Web**

Provides hands-on intro to web programming using a server-side programming language such as PHP or Perl. Reviews HTML and client-side language such as JavaScript, to validate and enhance web pages. Actual programming and scripting languages will reflect current industry usages. Prereq: Web 110 and ITC 110.

ITC 220 (5) C**Database Development for Programmers**

Overview of database theory and systems. Work with relational databases, simple ADO, SQL and XML. Prereq: MIC 101 and either MIC 110 or permission.

ITC 222 (5) C**SQL**

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.

ITC 224 (5) C**Designing Database Solutions**

Explore developing, testing and deploying database solutions. Focus on SQL Server 2008. May change as technologies change. Scenario and case driven. Prereq: ITC 110, 220, 222.

ITC 226 (5) C**Database Administration**

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.

ITC 240 (5) C**Web Application Programming 1**

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.

ITC 250 (5) C**Web Application Programming 2**

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.

ITC 255 (5) C**Systems Analysis**

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: MIC 101 with 2.0 or higher or SAM Challenge test out Recommended: ITC 110 or CSC 110.

ITC 260 (5) C**Web Application Programming 3**

Builds on ITC 250. Covers more advanced server-side scripting. Intro to object oriented programming principles, more advanced database interaction and popular frameworks. Prereq: ITC 250 with 2.0 or higher or permission.

ITC 280 (5) C**Web Database**

Intro to the skills, tools and techniques needed to create database-driven websites and practical experience. The languages and methods used for database access will remain flexible to account for the most current industry standards. Prereq: WEB 110 with 2.0 or higher. Recommended: ITC 110.

ITC 281 (5) C**Advanced Web Databases**

Intro to advanced web development and database topics such as XML, RSS and AJAX. Prereq: ITC 280 and WEB 120 with 2.0 or higher or permission.

ITC 285 (5) C**Capstone Project Class**

Produce a major project that responds to a client problem or request. Work in teams or carry out an individual project as an intern/extern. Select and work closely with industry mentors. Emphasis on research, accuracy, technology skills, timeliness, teamwork, quality, client/customer satisfaction and usability. Prereq: Completion of first year of A.A.S.-T. degree.

ITC 290 (5) C**Advanced Web Database**

Intro to advanced web development and database topics such as XML, RSS and AJAX. Prereq: ITC 280 & WEB 120 with 2.0 or higher or permission.

ITC 298 (1-5) C**Special Topics**

In-depth studies in new and emerging technologies relevant to the IT programs. Prereq: Permission.

MIC 101 (4) C**Intro to Microcomputer Applications**

Intro to microcomputer applications for Windows. Includes an overview of Windows, the Microsoft Office System featuring Word, Excel, Access, PowerPoint, Internet Browsers, email, along with emerging software application topics and concepts.

MIC 102 (1) C**Using Computers**

A series of one-credit short classes which provide a brief hands-on intro to one type of commonly used industry software using both PC and Macintosh. Attendance mandatory and additional 2-4 hours per week required during Computer Center hours.

MIC 103 (3) C**Computer Applications for Builders**

Intro to basic personal computer hardware and software concepts as they apply to business transactions and the building trades. Prereq: Permission.

MIC 104 (2) C
Applied Software Applications

Covers an in-depth exploration of computer topics considered appropriate by the instructor and/or division. May supplement content in another course. Class format may vary. Courses cover various vendors' applications including Microsoft Office and Adobe Creative Suites.

MIC 106 (5) C
Intro to Software Applications for K-12 Educators

Covers the use of essential software applications for teaching in a K-12 classroom. Provides a practical understanding of the computer, the Internet and applications to successfully teach and manage instruction in varied environments. Provides a strong technology foundation.

MIC 110 (4) C
Program Design & Development for Non-programmers

Intro to concepts involved in planning, developing, testing and debugging a computer program. Intro to programming language and principles of structured programming that can be applied to any programming language. Prereq: MIC 101 or equivalent or programming experience.

MIC 120 (4) C
Database, Applications & Design with MS Access

Develop database application and design skills through use of MS Access. Emphasizes planning, creating and revising a database system. Prereq: MIC 101 or equivalent experience.

MIC 130 (3) C
Digital Imaging

Learn the use of digital imaging and illustration software on the Macintosh. Emphasizes creating and editing images for use in video and exporting to animation and nonlinear software packages.

MIC 141 (3) C
Computer Applications for Apparel Design I

Provides a basic understanding of various computer applications, ranging from word processing to graphic manipulation and their specific use in the field of apparel design. Complete fundamental tasks and learn selected advanced skills in each program.

MIC 142 (3) C
Computer Applications for Apparel Design II

Build on skills using Macintosh and/or PC computers to develop an understanding of computer procedures, terminology and practical skills related to Apparel Design.

MIC 150 (4) C
Internet & The World Wide Web

Intro to the global information network. Provides experience using browsers, email, search engines and other Internet and web tools. Focuses on finding valuable information and resources on the Internet. Understand the process of creating a web presence including basic HTML and web page editing tools.

MIC 151 (5) C
HTML & Web Page Development

Intro to Hypertext Markup Language (HTML) and web page development. Includes implementing HTML tags and files; learning common web page formats and functions; and developing and installing comprehensive websites. Prereq: MIC 101 or MIC 150, or equivalent experience.

MIC 160: PW,E (4) C
Supporting Microsoft Applications

Learn essential technical support skills for end users and strengthen software skills of essential Microsoft applications. Prepare to pass the Microsoft Office Systems (MOS) certification exam at the proficient level. Prereq: MIC 101 or demonstrated experience with Windows OS and software.

MIC 170 (5) C
Microsoft Word

A complete look at Microsoft Word, focusing on features for technical writing, management, editing and formatting long documents. Prereq: MIC 101 or equivalent experience.

MIC 203 (3) C
Intro to CAD/Wood Construction

Intro to drafting and design using the cross-platform program Vectorworks. Offered at the Wood Construction Center. Prereq: MIC 103 or permission.

MIC 215 (4) C
Intro to Dreamweaver

Online course. Access online discussion board, lecture board, quiz and file sharing tools. Intro to Macromedia Dreamweaver, the most widely used software for web page development used by professionals and hobbyists. Create simple web pages as well as dynamic and comprehensive websites. Prereq: MIC 101 or equivalent.

MIC 241 (3) C
2D & 3D Animation

Learn to create animations. Covers 2-D animations and intro to 3-D animation concepts. Prereq: MIC 130.

MIC 295, 296, 297 (1-3) C
IT Certification Test Preparation I, II, III

Prepare for information technology application certification exams such as Microsoft Certification Application Specialist (MCAS). Includes practice tests and strategies for effective test-taking and test anxiety mitigation. Prereq: MIC or CIS enrollment or completion.

MIC 298 (3-5) C
Advanced Applications Project

Apply skills and knowledge to a major programming project that responds to a client problem or request. May work in teams or carry out an individual project as an intern/extern. Select and work closely with industry mentors. Emphasis on research, accuracy, programming skills, timeliness, teamwork, quality, client/customer satisfaction and usability. Prereq: Completion of first year of A.A.S. degree in Programming.

WEB 105 (3) C
Working on a Web Team

Overview of different web-related careers including web team job descriptions, functions, workflow, processes, and overall project management.

WEB 110 (4) C
Web Authoring I

Covers the mechanics of web page production starting with absolute basics. Covers document structure, text elements, list elements, links, tables and working with images and creating framesets. Focuses on creating HTML/XHTML files "by hand" with emphasis on browser compatibility issues and HTML/XHTML validation. Prereq: MIC 101 or computer experience.

WEB 112 (3) C
Typography for the Web

Intro to the elements of typography as applied to the Web. Prereq: WEB 110 or concurrent enrollment.

WEB 114 (3) C
Photoshop for the Web

Gain insight and skill with Adobe Photoshop. Covers the basic concepts of pixel-based image editing and making graphics for the web. Prereq: WEB 110 or concurrent enrollment.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

WEB 120 (4) C

Web Authoring II

Covers more advanced elements of web page development and production. Includes style sheets, designing and coding “oof” forms, XHTML and an intro to XML. Code elements by hand and create content compatible with all major browsers. Prereq: WEB 110 or permission.

WEB 130 (3) C

Web Design with Dreamweaver

Covers basic to advanced features of Dreamweaver. Plan, build, upload and maintain a professional website using Adobe Dreamweaver. Prereq: WEB 120. Knowledge of writing JavaScript is helpful.

WEB 150 (3) C

Intro to JavaScript

Studies programming concepts and techniques affecting web page design. Examines theoretical concepts that make the world of JavaScript programming unique. Uses a hands-on approach when examining programming styles. Examines different coding, the advancement of programming and problem-solving strategies. Prereq: WEB 110 or permission.

WEB 160 (2) C

Writing for the Web

Covers techniques for writing successful copy for a website.

WEB 170 (3) C

Web Animation Using Flash

Learn and practice digital web application of 2-D animation to increase skills as a web designer. Prereq: WEB 120. Knowledge of writing JavaScript is helpful.

WEB 200 (4) C

Theory of Web Design

Covers principles and practices of professional web site design, including site structure, page layout, navigation, color theory, typography and best coding practices. Prereq: WEB 110 with 2.0 or higher. Coreq: WEB 120.

WEB 202 (4) C

User Centered Web Design

Overview and detailed look at how the user experience dictates the design, functionality, features and content of a website, and how to successfully achieve the client’s business goals. Prereq: WEB 120 and 200 with 2.0 or higher.

WEB 205 (2) C

Web Career Strategies

Presents various tools and skills needed to transition into the web industry. Learn about web careers, presenting skills, finding appropriate positions and creating a portfolio. Prereq: WEB 120 with 2.0 or higher and ITC 200. Coreq: WEB 210 or permission.

WEB 210 (5) C

Advanced Web Design

Design and produce an effective web site for a live client with advanced web design techniques while practicing a team workflow process. Prereq: WEB 120 and 200 with 2.0 or higher.

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 Imperatives 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.

Students must be accepted into the program in order to take courses numbered 300 and above.

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 & 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 extends 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 (8) N
International Business Practicum

Gain practical experience in a language/culture the student is studying through an educational excursion to a country speaking that language, working or volunteering in a non-profit or business that primarily communicates in that language, or other means.

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 490 (1) N
Research Skills for International Business

Intro to the organization, retrieval and evaluation of electronic and print information, including college library systems, networked information system, scholarly resources, and the concepts underlying the research process. Focus on the International Business arena by examining various specialized services.

INTERNATIONAL STUDIES**ISC 197, 198, 199 (2-5) C**
Intercultural Studies Internship

Learn about the country being visited, including a brief history, major political institutions, major celebrations and holidays, social and political institutions. Write a description of the experience as it relates to an education career, including exploration through informational interviewing, observations, readings and special topic research.

ISD 200 (3) N,C,S
Orientation to the American College

Provides international students with the knowledge and skills necessary for success in an American community college. Prereq: Advisor permission.

ISP 101 (5) N
The Global Society

Intro to the globalization of cultures and societies in producing the current world system. Includes human interaction, social institutions, social stratification, socialization, deviance, social control, social and cultural change within the context of international inequality.

ISP 105 (5) C,N
Understanding Intercultural Communications

Interdisciplinary focus on the values, patterns, history and attitudes that create and sustain cultures; emphasis on skills and empathy in intercultural communication gained from study of diverse cultures through literature, theory and guest lectures.

ISP 110 (5) N
Intro to Global Studies

Intro to living in an interdependent and interconnected world, including the diversity in the world's biophysical landscape and examination of human inter-connectedness through time and space. Includes major global issues and problems such as migration, food and hunger and environmental pollution and development. Explores cultural diversity and unity at global, regional and national levels.

ISP 112 (5) C,N
The Contemporary World

Intro to the nation-state system, elements of power and major problems facing nation-states today, including population, hunger, nuclear proliferation, energy, nationalism and North-South/East-West relations. May be taken as POLS 112.

ISP 120 (5) S
Intro to Scandinavian Culture

Intro to Scandinavian culture, with an overview of the geography, heritage and history of the members of the Nordic Council: Denmark, the Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Aland. Also covers Estonia.

ISP 160 (5) N
Asian Written Traditions

Intro to written traditions in philosophy, religion, history and literature of East and South Asia. Emphasis on original texts in translation in relation to social and cultural background. Recommended: ENGL& 101 or placement.

ISP 170 (5) N
Intro to Contemporary China

Multi-disciplinary survey course on the people, history, culture and socio-economic political systems of Chinese society. No prior knowledge of Chinese civilization or language is required.

ISP 200 (5) N
Origins of the Modern Global System

Covers origins of the modern world system from its 16th century roots through World War I. Covers the interaction and interrelationship of economics and politics around the world, with particular emphasis on modern nation-states, capitalism, and imperialism. Prereq: Completion of ENGL& 101 strongly recommended.

ISP 201 (5) C,N,S**Intro to International Political Economy**

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.

ISP 205 (5) C,N,S**Women in the Global Context**

Interdisciplinary intro to the study of women in Asia, Africa, Latin America, the Middle East and/or indigenous women in some Western societies. Explores commonalities and differences among women in various societies and cultures. Specific societies or regions covered vary by instructor.

ISP 210 (5) N**The Pacific Century**

Study of the transformation of Pacific Asia and its contribution to the modern world. Emphasis on responses to problems and challenges of economic, political and social development. Attention to impact of China and Japan on contemporary Pacific Asia.

ISP 220 (5) N**World Hunger**

Comprehensive information about world food situations and the problem of hunger using an ecological/food system approach. Analyzes various components of the food system to identify causes of hunger. Examines acute, chronic and hidden hunger and evaluates proposed strategies using scientific measures as well as the voices of people.

ISP 234 (5) N**Chinese Society & Thought**

Covers concepts of Chinese civilization from the earliest days to the present. Emphasis on morality-based political philosophy of Confucianism with other conflicting or complementary views of people, nature, society and state.

ISP 251 (5) N**History of Chinese Civilization**

Development of Chinese society from ancient times to the present, including philosophy, literature, fine arts, religion, foreign relations, science and technology.

ISP 255 (5) C,N,S**History of the Art of Asia**

Survey course of the paintings, sculpture, architecture and crafts of India, China, Japan and Southeast Asia. Studies influences brought about through invasion, assimilation and transformation of Hinduism, Buddhism, Daoism and Confucianism as reflected in the arts, history and culture.

ISP 260 (5) N**World Migration**

Study of human migration in time and space including pre-colonial, colonial and current transnational migrations. Examines causes of voluntary and involuntary migration and their impact on economic, social and cultural aspects of people's lives. Covers how migration led to the formation of diasporas in different parts of the world. Studies recent trends in return migration among the Peruvian Japanese, Caribbean and Irish Americans and others.

ISP 261 (5) N,S**Japanese Civilization**

The development of Japan as a society and nation including its origins, history, government, literature, economic institutions, material culture, social organizations and religions.

ISP 270 (5) S**Contemporary Scandinavian Society**

Examines the distinctive policies, institutions and social norms of contemporary Scandinavian or Nordic societies: Denmark, the Faroe Islands, Finland, Greenland, Iceland, Norway, Sweden and Aland. Also covers Estonia.

ISP 293 (5) N**Global Studies Projects & Practicum (Pacific Asia)**

Intro to and experiential knowledge of the people, history, culture and economic development in Pacific Asia. Field trip to selected Pacific Asian countries, lecture, on-site assignments and pre- and post-trip classroom work.

ITALIAN

See Languages & Literature, see page 272.

JAPANESE

See Languages & Literature, see page 272.

JOURNALISM**JRN 101 (5) C,S****Media Writing**

Covers newsworthiness, sources, news gathering techniques (beat, interview, observation, research); writing and editing stories for newspaper, radio and television; law and ethics; influence on society; and values.

JRN 102 (2-4) S**Newswriting**

Continuation of JRN 101. Emphasis on special assignments such as feature writing and in-depth reporting. Prereq: CMST& 102, JRN 101 or permission.

JRN 103 (4) S**News Editing**

Editing of news copy for publication: headline writing and layout. Prereq: JRN 102 or permission.

JRN 104 (1-5) C,S**College Publications**

Intro to newspaper production. Includes writing, editing and layout. Examine current newspapers and produce news and feature articles. Prereq: JRN 102, or another news-writing course, or permission (S); ENGL& 101 eligibility (C).

JRN 105 (1-5) C,S**College Publications**

Covers college publishing. Includes basics of advanced reporting and writing through work on college newspaper and other assignments. Prereq: JRN 104 or another newswriting course and mastery of basic news reporting techniques.

JRN 106 (1-5) C,S**Publications Leadership**

Advanced practicum on the student newspaper, arranged by contract. Focus on skills and responsibilities required of editorial or management positions (editor-in-chief, copy editor, business manager) for college newspapers.

JRN 199 (1-5) S**Independent Study in 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**LHO 100 (1) S**
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 105 (3) S
Fundamentals of Landscape Design

Explore the basics of design, then apply them to a residential or commercial setting. Develop skills in drafting and drawing, plant placement and aesthetics. Present the finished product to your peers. For both landscape professionals and home owners.

LHO 108 (3) S
Weed Identification & Management

Recognize common landscape weeds and other invasive species. Use print and electronic weed identification tools. Explore weed biology, become familiar with various weed management strategies (cultural, biological, chemical) and learn how to develop an integrated approach to weed management. Helps prepare for the weed section of the WSDA pesticide license exam.

LHO 109 (3) S
Integrated Pest Management (IPM)

Principles of integrated pest management (IPM). Covers pesticide laws, health and environmental concerns, and how to develop an IPM plan. Helps prepare for the WSDA pesticide license exam.

LHO 111 (3) S
Greenhouse Operations

Intro to greenhouse operations and management, including production practices, maintenance methods and environmental control systems. Involves propagation and maintenance in the campus greenhouse. Includes industry overview through field trips to local production greenhouses.

LHO 112 (3) S
Nursery Operations

Examine the world of retail and wholesale nursery operations through field trips to local nurseries. Learn the basic methods of business operations and apply them in the campus retail garden center.

LHO 115 (3) S
Fall Plant Identification

Identify and properly use ornamental shrubs, trees, vines and ground covers adapted to and utilized in the Pacific Northwest landscapes. Prereq: Recommend LHO 150.

LHO 116 (3) S
Winter Plant Identification

Identify and properly use conifers adapted to the Pacific Northwest and broadleaf plants that provide special winter interest: flowers, fragrance, attractive bark and fruit. Prereq: Recommend LHO 150.

LHO 117 (3) S
Spring Plant Identification

Identify and properly use broadleaf evergreen and deciduous trees, shrubs, vines, and groundcovers adapted to and utilized in Pacific Northwest landscapes. Prereq: Recommend LHO 150.

LHO 119 (3) S
Native Plants for Northwest Landscapes

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: Recommend 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: Recommend LHO 150.

LHO 122 (5) S
Residential 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
Residential 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
Intro to Drainage and 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN **Watch Technology**
NAME TO PREFIX
Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

LHO 197 (VARIES) S
Internship

Explore propagation and plant production. Follow plant materials propagated in LHO 215. Production and ongoing management of specific species and quantities for sale in retail garden center. Prereq: LHO 215 or permission.

LHO 210 (3) S
Plant Problem Diagnostics

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

Explore propagation and plant production. Follow plant materials propagated in LHO 215. Production and management of specific species and quantities for sale in the campus retail garden center. Prereq: LHO 215 or permission.

LHO 221 (3) S
Turf Identification & Physiology

Study turf grasses and weed grasses. Learn how use affects lawn types. Covers turf grass plant parts, root and shoot growth, plant metabolism, germination and seedling development. Learn how environment and cultural practices affect visual and functional quality of turf grasses.

LHO 222 (3) S
Turf Fertility

Covers nutrient requirements of turf, reading fertilizer labels and calculating costs. Take and interpret soil tests, write a fertilizer program and diagnose basic nutrient deficiencies. Study how fertilizers interact with soils and affect microbial activity. Learn application techniques, calibration, leaching and environmental factors.

LHO 223 (3) S
Sports Turf Pest & Disease Management

Learn to identify pests and diseases common to sports turf in the Pacific Northwest. Explore appropriate pest management practices. Emphasizes safety and legal responsibilities associated with pest management on sports turf.

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: An Introduction

Explore the field of ecological restoration as it applies to horticulturists attempting to repair damaged landscapes. Investigate the science and practice of restoration through field trips and service learning.

LHO 241 (3) S
Ecological Restoration: Project Planning

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. Prerequisite: 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.

LHO 255 (3) S
Edible Trees, Shrubs & Vines

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.

LHO 263 (5) S
Residential Landscape Design III

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. Prereq: LHO 126 with 2.0 or higher or permission.

LHO 265 (3) S
Landscape Contracts & Specifications

Covers practical application of bidding and estimating procedures and techniques within the landscape industry, as well as industry opportunities and standards. Prereq: LHO 189 or permission.

LHO 267 (5) S
AutoCAD for Landscape Design

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.

LHO 272 (4) S
Landscape Construction Project – Fall

Application of standard trade procedures and techniques for residential landscaping. Covers care and safe use of tools used in garden structures and in trade. Prereq: LHO 189 with 2.0 or higher or permission.

LHO 273 (4) S**Landscape Construction Project – Spring**

Application of standard trade procedures/techniques for residential landscaping. Covers care and safe use of tools used in garden structures and in trade. Prereq: LHO 189 or permission.

LHO 299 (2-4) S**Special Topics**

Special individual or group study topic in the landscape horticulture field. Prereq: Permission.

LANGUAGES & LITERATURE

NOTE: All listed world languages transfer to four-year colleges and universities. Students intending to transfer should be aware of differing world language requirements and consult with an advisor regarding requirements at specific colleges and universities.

The faculty recommend that students entering a world language 101 class have attained Eligibility for ENGL& 101. For information, contact the Humanities Division (N), Humanities & Social Sciences Division or Health & Human Services Division (ASL only) (C), or College Transfer Division (S).

Arabic**ARAB 101 (5) S****Arabic 101**

Intro to Modern Standard Arabic (MSA) language with a supplementary focus in Arabic culture. Develop elementary communication skills of listening, speaking, reading, and writing Arabic, with emphasis on pronunciation of Arabic sounds and letters, common Arabic greetings, phrases and basic vocabulary.

ARAB 102 (5) S**Arabic 102**

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.

American Sign Language**ASL 104 (5) C****ASL Skills Enhancement**

Maintain or increase skills learned in ASL& 121, 121 and 123. Performance will be videotaped for critique. Gain exposure to a variety of signing styles. Prereq: ASL& 123 with a 2.0 GPA or higher or permission.

ASL 120 (5) C**Intro to Deaf Studies**

Overview of the treatment and psychological aspects of Deafness; history and education of Deaf people; and Deaf culture.

ASL& 121 (5) C,N,S**American Sign Language I**

Learn ASL grammar skills, increase vocabulary, and gain a deeper knowledge and appreciation of Deaf culture. Prereq: None.

ASL& 122 (5) C,N,S**American Sign Language II**

Continuation of ASL& 121 to build mastery of grammar skills, increase vocabulary, and gain a deeper knowledge and appreciation of Deaf culture. Prereq: ASL& 121 with a 2.0 GPA or higher or permission.

ASL& 123 (5) C,N,S**American Sign Language III**

Continuation of ASL& 122 with focus on grammatical features such as spatialization, directionality, and non-manual components. Intensive work in vocabulary development and continued study of Deaf culture. Prereq: ASL& 122 with a 2.0 or higher or permission.

ASL 125 (5) C**American Deaf Culture**

Covers discussion of Deaf people as a culture, a group of people held together by strength of culture rather than disability. Examines Deaf minorities and current issues in the field.

ASL 132 (4) C**Fingerspelling & Numbers Culture**

Emphasis on receptive and expressive fingerspelling and number use within a range of contexts. Learn strategies for maintaining uninterrupted language flow. Prereq: ASL& 223 or ITP 165 with 2.5 or higher or permission.

ASL& 221 (5) C**American Sign Language IV**

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. Prereq: ASL& 123 with a 2.0 or higher or permission.

ASL& 222 (5) C**American Sign Language V**

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.

ASL& 223 (5) C**American Sign Language VI**

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.

ASL 299 (2-10) C,N,S**Independent Study for ASL**

Independent study of selected topic(s) in ASL. A mutually desirable research project is assigned by faculty.

Chinese**CHIN& 121 (5) C,N,S****Chinese I**

Intro to the standard language, emphasizing correct pronunciation and basic structure, with oral practice and structure skills. Emphasis 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,S**Chinese II**

Continuation of CHIN& 121. Prereq: CHIN& 121 or permission.

CHIN& 123 (5) C,N,S**Chinese III**

Continuation of CHIN& 122. Prereq: CHIN& 122 or permission.

CHIN& 221 (5) C,N,S
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,S
Chinese V

Continuation of CHIN& 221. Studies similarities and differences between Chinese and English. Prereq: CHIN& 221 or permission.

CHIN& 223 (5) C,N,S
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: High School Completion**ENGL 040 (5) S**
Composition I

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
Composition II

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
Composition III

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 045 (5) S
Literature II – World Literature

Survey of English literature through reading and discussing novels, essays, poetry and drama. Studies author's purpose, style and point of view.

ENGL 046 (5) S
Literature III – American Literature

Survey of the American heritage through its literature. Includes reading and analysis of fiction, poetry and drama. Write book reviews, biographical sketches and interpretations of characters or verse.

English: Pre-College / Developmental

Designed to help students improve their reading, writing, thinking and study skills. For information about courses, contact the following offices: North – Humanities Division (206-934-3709) or Testing Office (206-934-3674); Central – Testing Office (206-934-6913); South – College Transfer (206-934-6600). Instructors will recommend the next appropriate course for students who complete a course in developmental English.

ENGL 070 (3) S
Intro to Transitional English

Development of basic skills required for vocational/technical communications. Using computers to organize, write and edit technical communications. Take concurrently with ICT 098.

ENGL 079 (2) S
English SAT Prep

Builds skills in persuasive writing; grammar rules, mechanics, and punctuation; sentence structure and revision; reading strategies and comprehension; and vocabulary development.

ENGL 080 (1-5) C,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 081 (1-5) C,S
English Skills Shop

Continuation of ENGL 080. Prereq: ENGL 080.

ENGL 082 (1-5) C,S
Writing Skills II Prep

Continuation of ENGL 081. Prereq: ENGL 081.

ENGL 084 (2-5) S
Spelling & Vocabulary

Improving vocabulary through study of prefixes, suffixes, roots, context clues and essential vocabulary words; improving spelling through practice and study of spelling rules and patterns.

ENGL 086 (5-10) N,S
Grammar & Punctuation I

Open to native and non-native speakers of English. Emphasis on basic sentence-level grammar: prepositional phrases, subject-verb identification, conjunction and sentence types. Practice in thinking, writing, proofreading and editing. Prereq: Placement into ESL 096/7 or higher or placement on English placement test or teacher recommendation.

ENGL 088 (5) S
Grammar & Punctuation II

Open to non-native speakers of English only. Intensive study of clauses and reduced clauses (noun, adjective, adverb), form and usage as well as participle forms. Prereq: ESL 096/7 or higher or placement on English placement test or teacher recommendation.

ENGL 090 (2-5) S
Independent Study of Basic English

Addresses individual learning needs of students in college preparatory reading or writing skills. Credit awarded according to students' mastery of various skills as determined by the successful completion of material specified by the instructor. Prereq: Appropriate placement on English placement test or permission (N). Appropriate placement, contact the Testing Office (S,C).

NOTE: Prerequisite for ENGL 091 through 099.

ENGL 091 (3-5) C,S
Basic Reading & Study Skills I

Covers essential reading and study skills. Includes techniques for developing good reading skills and habits, vocabulary, comprehension, textbook reading and classroom skills. Prereq: Placement Test.

ENGL 092 (3-5) C,S
Basic Writing Improvement I

Emphasis on the sentence. Includes basic sentence grammar and practice in thinking, writing, editing and proofreading. Prereq: Placement Test.

ENGL 093 (3-5) C
Reading & 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 (3-5) C,S
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 (5) C,N,S
College Preparatory Reading & Study Skills 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 (5) C,N,S
College Preparatory Writing III

Build writing skills through clear, correct sentences, well-developed paragraphs and coherent short essays. Prereq: Placement Test.

ENGL 097 (5) C,N,S
College Preparatory Reading IV

Increase general knowledge of fiction and non-fiction through concepts and vocabulary needed to interpret, appreciate and respond to a wide range of reading selections. Prereq: Placement Test.

ENGL 098 (5) C,N,S
College Preparatory Writing IV

Emphasis on writing skills for essays or longer papers. Practice in collecting, shaping, revising, editing and proofreading papers. Includes grammar, punctuation and other skills needed for effective writing. Prereq: Placement Test.

ENGL 099 (5) C,N,S
College Preparatory Writing V

Emphasis on writing skills for longer, more fully developed essays. Practice prewriting, organizing, revising, editing and proofreading essays. Includes some review of grammar, punctuation and other skills needed for effective writing. Prereq: Placement Test.

English: College Level**ENGL 100 (5) S**
Critical Literacy & College Writing

Tandem course for students who are eligible for ENGL 098 but choose to move directly to ENGL& 101. Material advances and supports college-level academic critical literacy in both reading and writing. Prereq: Eligible for ENGL 098; Coreq: ENGL& 101.

ENGL& 101 (5) C,N,S
English Composition I

Covers academic writing and major strategies of reading and writing analytically. Focuses on engaging and responding to a variety of texts. Through revision and reflection, develop skills as readers, writers and critical thinkers. Prereq: Eligible for ENGL& 101.

ENGL& 102 (5) C,N,S
Composition II

Continues 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& 101.

ENGL 103 (5) S
Transitional English

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.

ENGL 104 (5) C,N,S
Advanced English Grammar

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& 101 or permission.

ENGL 105 (3) C,S
Applied Composition

Covers skills and strategies needed to meet writing demands in college and on the job. Prereq: Satisfactory performance on English placement test.

ENGL 106 (3) C,S
Technical Writing

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, schematics and mathematics. Prereq: ENGL 105 or permission.

ENGL 108 (3) S
Technical Report Writing

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.

ENGL 109 (5) S
The Art of Reading

Offers a variety of experiences in college-level reading with emphasis on the critical analysis of works selected from across disciplines. Develop a strategic approach to efficient reading and active learning.

ENGL& 111 (5) C,N,S
Intro to Literature

Study and analysis of fiction, poetry and drama with emphasis on understanding the art and techniques of each genre. Prereq: Placement into ENGL& 101.

ENGL& 112 (5) C,N,S
Intro to Fiction

Survey of 20th century fiction. Study and analysis of the art, elements, and techniques of short stories, novellas, and novels of American and international authors. Prereq: Placement into ENGL& 101 (N).

ENGL& 113 (5) C,N,S
Intro to Poetry

Study, appreciation and analysis of the form, meaning, music and metaphor of poetry. Includes poems from diverse sources. Prereq: Eligible for ENGL& 101 or permission (N).

ENGL& 114 (5) C,N,S
Intro to Drama

Study and analysis of great works of the theater, including major themes and trends of playwrights from the Greeks to the present. Prereq: Eligible for ENGL& 101(N).

ENGL 117 (5) C
American Dialects

Survey of the contributions other languages and dialects have made to American English, its make-up and creative communicative dynamics.

ENGL 150 (3-5) C
Writing for the Media – Scriptwriting

Creating stories and characters and scripting them for video productions. Prereq: Computer literacy.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

ENGL 151 (5) C,N,S
Creative Writing

Reading and writing fiction, poetry and drama with focus on development of character and voice and emphasis on effective elements and techniques. Prereq: ENGL& 101 or permission.

ENGL 152 (5) C,N,S
Creative Writing

Continuation of ENGL 151. Prereq: ENGL 151, ENGL& 101 or permission.

ENGL 153 (5) C,N,S
Creative Writing

Continuation of ENGL 152. Emphasis on writing, editing and proofreading manuscripts. Includes literary magazine production experience in editing, design and layout. Prereq: ENGL& 101, ENGL 151 and ENGL 152 or permission (N). Includes workshops and seminars for those with writing experience (C).

ENGL 155 (3) C
Writing for the Media – Advanced Scripting

Development of individual and small group scripts, teleplays, adaptation of short stories and individual projects. Projects to be used in the video festival.

ENGL 198 (1-3) S
English Workshop

Emphasis on building skills in a variety of areas: vocabulary development, reading comprehension, grammar, punctuation, sentence structure and strength. Addresses diagnosed student needs individually, with a mixture of workshop and lecture techniques.

ENGL 201 (5) C,S
Advanced Composition

Reading and writing exposition with emphasis on context, audience and rhetorical options. Provides critique experience for own and others' writing. Prereq: ENGL& 101 or permission.

ENGL 203 (3) C

Writing for the Media:

Advanced Script Writing

Emphasizes writing for film and videotape productions utilizing exterior and interior settings.

ENGL 204 (5) C

Understanding Language

Learn the fundamental structures of English as well as the theory of grammar, language origination (biological and historical), language relationships and usage. Study how language changes according to a clearly defined set of internal rules. Prereq: ENGL& 101.

ENGL 205 (5) C

Creative Nonfiction

Focuses on nonfiction and its disciplines but draws from the other literary genres in terms of creative techniques. Learn to combine imaginative strength with literary techniques borrowed from fiction, poetry and drama to create art in a nonfiction form. Goes well beyond the typical undergraduate composition essay. Prereq: ENGL& 101.

ENGL 214 (5) C

Major British Writers

Covers 1920 to the present. Read a wide variety of authors and genres with attention to the multi-cultural forces that shape British literature today. Study the historical and social forces surrounding the literature for context. Prereq: Eligible for ENGL& 101.

ENGL 218 (5) C

Holocaust Literature:

Voices From the Holocaust

Examines literature written by survivors of the Holocaust or the Shoah. Read accounts written by people who survived to write and publish their memories. Meet one of the authors. Develop an historical context for World War II and the rise of Nazi Germany to understand the literature.

ENGL 219 (5) C,N,S

Between the Wars

Explores the character, mood and atmosphere of post-WWI American writers, including African-American, Native-American, Asian-American and European-American. Considers the implications and nature of their work in the context of their time. Prereq: Eligible for ENGL& 101.

ENGL& 224 (5) C,N,S

Shakespeare I

Study of a representative selection of Shakespeare's comedies, tragedies, romances, and history. Covers the range of Shakespeare's career (without duplication of materials from ENGL& 225). May take one or both classes. Prereq: Eligible for ENGL& 101.

ENGL& 225 (5) C,N,S

Shakespeare 2

Continuation of ENGL& 224. May take one or both classes. Prereq: Eligible for ENGL& 101.

ENGL& 226 (5) C,N

British Literature I

The early Celtic period, the Roman occupation, the Anglo Saxon period, the Norse invasions, the Middle Ages to the English Renaissance before Shakespeare. Emphasizes the historical forces, social shifts and significant cultural clashes that form the context for this literature. Prereq: Eligible for ENGL& 101 (N).

ENGL& 227 (5) C,N,S

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,S

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

Presents 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 (3-5) N,S

Children's Literature

Studies children's and adolescent literature from diverse cultures within the United States. Covers the power and elements of story and reflection of values. Prereq: Eligible for or completion of ENGL& 101 (N).

ENGL 232 (5) S
Young Adult Literature

Explores literature that reflects the lives and concerns of young adults and teens in a culturally-diverse United State, and teaches the elements of story. Includes, but is not limited to works by Sandra Cisneros, John Green, Lois Lowry, Neil Gaiman, Julia Alvarez and Sherman Alexie. Prereq: Eligible for ENGL& 101.

ENGL 233 (2-5) S
Coming of Age Across Cultures

Studies "coming of age" literature in two or more countries.

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,S
Reading & Writing 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. Recommended: ENGL& 101.

ENGL 241 (5) N
Reading & Writing Autobiography

Continuation of ENGL 240. Prereq: ENGL 240 and eligible for ENGL& 101.

ENGL& 244 (5) C,N,S
American Literature IP

Surveys literature of the United States from Colonial times to the early 19th century. Prereq: Eligible for ENGL& 101.

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 251 (5) C,N,S
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,S
Novels of Western Literature

Emphasis on European and American novels from the past two centuries viewed in the philosophical and historical contexts of the time. Prereq: Eligible for ENGL& 101 (N).

ENGL 253 (5) N,S
Studies in the Novel

Continuation of ENGL 252. Prereq: Eligible for ENGL& 101 (N).

ENGL& 254 (5) C,N,S
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: Eligible for ENGL& 101.

ENGL& 256 (5) C,N,S
World Literature III

Cross-cultural survey of 20th century literature from Latin America, Africa, Asia, Europe and the United States. Reading and discussion of major modern writers who have influenced the form and content of other writers. Prereq: Eligible for ENGL& 101 (N).

ENGL 257 (5) C,N,S
Survey of 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: Eligible for ENGL& 101.

ENGL 258 (5) C,N,S
Literature of American Cultures

Surveys literature from a variety of cultures including Asian-American, African-American, European-American, Chicano and Latino-American and Native-American. Analysis of the writing and sociological, political, and historical contexts of the authors. Prereq: Eligible for ENGL& 101 (N).

ENGL 259 (5) C
African American Literature

Explores African-American literature, poetry, short drama and essays. Prereq: Eligible for 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

Studies the Bible as an anthology of literary texts expressing the religious ideas of ancient Israel. Emphasizes reading the Old Testament and New Testament with literary and historical understanding. Prereq: Eligible for ENGL& 101.

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.

ENGL 266 (5) C,S
Literature of Emerging Nations – Third World Literature

Surveys traditional and contemporary literature from Africa, Asia and South America.

ENGL 267 (5) C,N
The Literature of the American West

Covers literature about the American West by people of the American West with emphasis on cultural, historical, and sociological concerns. Prereq: Eligible for ENGL& 101.

ENGL 270 (5) C
The 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 the literature by culturally diverse American women authors. Analyzes fiction and non-fiction of various genres. Examines the ways women's literary voices have shaped society, culture, politics and gender roles in the United States. Prereq: Eligible for ENGL& 101. women writers from Asian, African, European, Latino and Native American cultures. Explores the contexts and lives of the characters, considering culture and gender in their values and attitudes. Prereq: Eligible for ENGL& 101 (N).

ENGL 292 (5) C,N,S**Literature by Women: Global Perspectives**

Surveys literature by women from African, Asian, Latin American, Middle Eastern and other non-western cultures.

ENGL 293 (5) C,N,S**Special Studies in Literature – Science Fiction**

Examines selected readings in science fiction and fantasy from the 19th century to present. May include American, British, continental European and other international writers.

ENGL 296 (1-3) N,S**Special Topics in English**

Special courses developed by instructors. Prereq: permission.

ENGL 299 (1-5) C,N,S**Independent Study**

Create an individual project, syllabus and outcomes with instructor. Prereq: Permission.

**English as a Second Language –
Beginning and Intermediate****ESL 007 (1-15) C****ESL – Pre-Literacy**

For true beginners – students who are unable to read, write, speak or listen in English and who are pre-or-non-literate in their native language. Introduces beginning concepts of reading and writing and spoken English for aural comprehension to help students use English for meeting classroom and personal needs.

ESL 010 (1-15) C,N,S**Level 1, Integrated Skills**

Emphasis on basic vocabulary, simple sentence structure, pronunciation, basic reading and writing needed for daily functioning. Concentrates on developing oral and listening skills through drills, dialogues, role-playing, dictation and conversation. Work on literacy skills.

ESL 011 (1-15) C,N,S**Level 1A, Integrated Skills**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations.

ESL 012 (1-15) C,N,S**Level 1B**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations. Prereq: ESL 011 or placement.

ESL 013 (1-15) C,N,S**Level 1C**

Beginning course for non-native speakers of English with emphasis on vocabulary, pronunciation, basic reading and writing needed to meet daily survival situations. Prereq: ESL 012 or placement.

ESL 015 (1-15) C,N,S**ESL Reading and Writing 1**

Practice in reading and writing skills needed for daily situations and jobs. Emphasis on basic vocabulary, simple sentences, and pronunciation.

ESL 016 (1-15) C,N,S**ESL Listening and Speaking 1**

Practice in speaking and listening skills needed for job and/or daily situations. Prereq: Placement into ESL 011 or 012.

ESL 017 (1-15) C,S**Level 1, Multiple Skills Lab**

Tutoring in specific areas for students in ESL Level 1. Prereq: Permission.

ESL 018 (1-15) S**Level 1, Workplace Literacy**

Beginning level for non-native speakers of English. Practice with job-related skills in reading, writing, speaking and listening.

ESL 019 (1-15) C,S**Level 1, VESL**

Designed to help prepare limited English-proficient students for entry into specific job training programs such as electronic assembly, culinary arts and wood construction. Focuses on the basic vocabulary and communication structures required in the job training class and on the job.

ESL 020 (1-15) C,N,S**Level 2, Integrated Skills**

Practice in listening skills, understanding idiomatic expressions and producing appropriate responses in contextual situations. Continued emphasis on basic vocabulary, reading and writing. Prereq: ESL 010, ESL 012 (N), or placement.

ESL 021 (1-15) C,N,S**Level 2A, Integrated Skills**

Beginning-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 010, 012, or placement (N); ESL 013 or placement (S,C).

ESL 022 (1-15) C,N,S**Level 2B, Integrated Skills**

Beginning-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 021 or placement.

ESL 023 (1-15) C,S**Level 2C**

Intermediate-level course for non-native speakers of English. Continued emphasis on vocabulary development, reading and writing needed to function effectively in a job or daily situations. Prereq: ESL 022 or placement.

ESL 025 (1-15) C,N,S**ESL Reading and Writing 2**

Practice in reading, writing, and grammar skills for survival and academic English. Emphasis on vocabulary development, reading comprehension and strategies, and writing for effective communication in a job or daily situations.

ESL 026 (1-15) C,N,S**ESL Listening and Speaking 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 (1-15) C,N,S**Intro to Computer-Assisted
Language Learning**

For non-native speakers of English. Emphasizes improving vocabulary, reading with understanding, and conveying ideas in writing while learning computer skills. Prereq: Placement at ESL Level 2 or higher or permission.

ESL 028 (1-15) C,N,S**Level 2, Workplace Literacy**

Advanced beginning level for non-native speakers of English. Practice English skills needed to obtain or keep a job.

ESL 030 (1-15) C,N,S
Level 3, Integrated Skills

Intermediate level course for non-native speakers of English. Continued emphasis on writing practice and reading to improve vocabulary, comprehension and speed and writing practice. Coping and cultural orientation skills needed for vocational or academic program. Prereq: ESL 020 or placement, ESL 022 (N).

ESL 031 (1-15) N,S
Level 3A, Integrated Skills

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 022 or placement.

ESL 032 (1-15) N,S
Level 3B, Integrated Skills

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 020, ESL 031 or placement.

ESL 033 (1-15) S
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 (1-15) N,S
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
ESL Reading and Writing 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 Listening and Speaking 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 (1-15) C,N,S
Beginning Computer-Assisted Language Learning

For non-native speakers of English. Emphasizes improving vocabulary, reading with understanding, and conveying ideas in writing while learning computer skills. Prereq: Placement at ESL Level 3 or higher or permission.

ESL 038 (1-15) N,S
Level 3, Workplace Literacy

Low intermediate level for non-native speakers of English. Practice English skills needed to obtain or keep a job.

ESL 039 (1-15) C,S
Level 3, VESL

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
ESL Level 4 Integrated Skills

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, Integrated Skills

Intermediate level course for non-native speakers of English with emphasis on improving vocabulary, reading comprehension and speed. Prereq: ESL 030, ESL 032 or placement (N); ESL 032 or placement (C, S).

ESL 042 (2) N
ESL Level 4B, Integrated Skills

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 041 or placement.

ESL 044 (1-10) C,N,S
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

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 045A (5-6) C
ESL Reading and Writing 4A

Intermediate level reading and writing focusing on quickly and accurately reading simple texts with understanding. Write short structured paragraphs on familiar topics.

ESL 045B (5-6) C
ESL Reading and Writing 4B

Intermediate level reading and writing focusing on building skills from ESL 045A with more emphasis on grammatical structures.

ESL 046 (1-5) C,N,S
ESL Level 4, Listening & Speaking

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 046A (5-6) C
ESL Listening and Speaking 4A

Listen and respond to most basic content related to personal background, everyday transactions, and routine tasks. Learn to communicate in familiar settings with one or more listeners, in person or on the telephone.

ESL 046B (5-6) C
ESL Listening and Speaking 4B

Intermediate level listening and speaking to building skills from ESL 046A, with more emphasis on grammatical structures.

ESL 047 (1-15) C,N,S
Intermediate Computer-Assisted Language Learning

For non-native speakers of English. Emphasizes improving vocabulary, reading with understanding, and conveying ideas in writing while learning computer skills. Prereq: Placement at ESL Level 4 or higher and completion of ESL 037 or permission.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

ESL 048 (1-6) C,S
ESL Test Preparation & College Readiness

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 4

Supports vocational, technical and employment training.

ESL 050 (1-15) C,N,S
ESL Level 5, Integrated Skills

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, Integrated Skills

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, Integrated Skills

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

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 055A (5-6) C
ESL Reading and Writing 5A

High intermediate reading and writing designed to help students read fluently and independently and comprehend a variety of texts through structured reading activities in various familiar settings. Write independently, using well-defined and structured paragraphs.

ESL 055B (5-6) C
ESL Reading and Writing 5B

Use high intermediate reading and writing skills from ESL 055B with greater emphasis on grammatical structures.

ESL 056 (1-15) C,N,S
ESL Level 5, Speaking & Listening

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 (1-15) C,N,S
Advanced Computer-Assisted Language Learning

For non-native speakers of English. Emphasizes improving vocabulary, reading with understanding, conveying ideas in writing, speaking comprehensibly, and listening actively while learning computer skills. Prereq: Placement at ESL Level 5 and completion of ESL 047 or instructor's permission.

ESL 059 (1-15) C,N,S
Vocational ESL 5

For students currently enrolled in the ESL Program. Provides specific support in vocational ESL and assists students pursuing career and professional technical programs. Prereq: Permission.

ESL 060 (1-15) C,N,S
ESL Level 6 Integrated Skills, Advanced ESL

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 Integrated Skills, Advanced ESL

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 (10) C
ESL for Information Technology 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 (10) C
ESL for Information Technology 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 (1-13) C,N,S
Focus on Writing

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 Level 6, Speaking & Listening

On completion, be able to listen actively and speak so others can understand.

ESL 067 (1-15) C,S
ESL Level 6, Computer Assisted

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 Interviewing for ESL Students

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 (10) C
ESL for Information Technology 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) 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) 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.

ESL 073 (1-15) 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 (1-15) N
ESL English Pronunciation

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 (1-15) C,N,S
ESL Pronunciation

Intro to some of 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
ESL Pronunciation

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
ESL Pronunciation

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 083 (5) N,S
Strategic Learning in a Content Area

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.

**English for Non-Native Speakers –
College Transitional ESL****ESL 084 (1-5) S**
English for Non-Native Speakers Telecourse

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 (3-5) C,N,S
Survey of English Grammar I

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 (3-5) 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
ESL Support Lab

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 (3) N
Advanced English Pronunciation I

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
**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 (2-5) C,N,S
College Preparatory Speaking Skills 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 (3-5) C,S
Listening & Note-Taking Skills for Non-Native Speakers

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 (5) N,S
Basic English Reading for 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 (5) C,N,S
Basic English Writing for Non-Native Speakers

Focus on control of English sentence structure, syntax, grammar and punctuation. Emphasizes writing skills. Prereq: placement on ESL COMPASS Test (C); ESL 051 placement on ESL Placement Test (N); ESL 051 or placement on English placement test (S). Coreq: ESL 092.

ESL 094 (3-5) C,N,S
College Preparatory English for Non-Native Speakers – Reading I

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 (3-5) C,N,S
College Preparatory English for Non-Native Speakers – Writing I

For non-native speakers of English. Focuses on mastering sentence control and developing clear, coherent paragraphs. Prereq: Placement on ESL COMPASS test. Coreqs: ESL 085 and 094.

ESL 096 (3-5) C,N,S
College Preparatory English for Non-Native Speakers – Reading II

For non-native speakers. Increase reading comprehension and speed, improve vocabulary, and build confidence using college preparatory materials. Respond to readings using academic vocabulary in writing. Prereq: ESL 094 or placement on ESL COMPASS test. Coreqs: ESL 086 and 097.

ESL 097 (3-5) C,N,S
College Preparatory English for Non-Native Speakers – Writing II

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 (5) C
College Preparatory English for Non-Native Speakers II – Reading

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 (5) C
College Preparatory English for Non-Native Speakers II – Writing

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,S
French I

Conversation and cultural aspects of the countries in which French is spoken. Oral practice with tapes required outside of class. Recommended: Eligibility for ENGL& 101 (C).

FRCH& 122 (5) C,N,S
French II

Continuation of FRCH& 121. Emphasis on pronunciation and oral and written communication. Prereq: FRCH& 121 or permission.

FRCH& 123 (5) C,N,S
French III

Continuation of FRCH& 122. Development of skills in oral and written communication while mastering pronunciation techniques. Prereq: FRCH& 122 or permission.

FRCH 204 (2-5) C,S
Advanced French Language & Literature

Advanced study of core literature and grammar. Choose an area of interest and prepare regular compositions and presentations. May include creating and performing adaptations of plays and short stories. Prereq: FRCH& 223 or permission.

FRCH 205 (2-5) C
Advanced French Language & Literature

Continuation of FRCH 204. Prereq: FRCH 204 or permission.

FRCH 206 (2-5) C
Advanced French Language & Cultures

Continuation of FRCH 205. Prereq: FRCH 205 or permission.

FRCH 210 (4.5) C
French Civilization

Intro to aspects of contemporary French society. Taught in French. Part of overseas study program in France.

FRCH 212 (5) C
Intermediate French Language & Culture

For those who have previously had four quarters of French or equivalent. Focuses equally on the four skills of language learning: speaking, comprehension, writing and reading.

FRCH 215 (4.5) C
Intro to French Literature

Study of French literature and literary analysis for intermediate-level students through the study of selected modern texts. Taught in French. Part of overseas study program in France.

FRCH& 221 (5) C,N,S
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,S
French V

Continuation of FRCH& 221. Prereq: FRCH& 221 or permission.

FRCH& 223 (5) C,N,S
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 (2-5) C,N,S
Independent Study in French

Independent study of selected topic(s) in French. To be arranged with instructor. Prereq: Permission.

FRCH 299 (1-5) C,N,S**Independent Study in French**

Independent study of selected topic(s) in French. Prereq: Permission.

German**GERM& 121 (5) C,N,S****German I**

For students with no previous German studies. Covers pronunciation, fundamentals of grammar and syntax, oral and written exercises, reading and conversation and cultural aspects of the countries in which German is spoken. Requires oral practice with tapes outside of class. Recommended: Eligibility for ENGL& 101 (C).

GERM& 122 (5) C,N,S**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,S**German III**

Continuation of GERM& 122. Emphasis on speaking, reading, writing and grammatical concepts and cultural discussions. Prereq: GERM& 122 or permission.

GERM 299 (1-5) C,N**Independent Study in German**

Further skills beyond the level of GERM& 123. Uses an intermediate text of contemporary short stories. Prereq: Permission.

Italian**ITAL 121 (5) C,N,S****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) C,N,S**Italian II**

Continuation of ITAL 121. Emphasizes pronunciation, oral and written communication.

ITAL 123 (5) C,N,S**Italian III**

Continuation of ITAL 122. 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,S**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,S**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,S**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 298,299 (1-5) C,N,S**Independent Study for 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,N,S**Comparative Linguistics:****American Sign Language & English**

Intro to linguistics as applied to English and American Sign Language. Examination of phonology, morphology, syntax and language use. Prereq: ASL& 123 with a 2.0 GPA or higher.

Literature**LIT 236 (5) C****Latin American Colonial Literature**

Surveys literary expressions of Colonial times through 18th century in Spanish America and Peninsular Spain. Covers representative and outstanding prose works of 16th & 17th centuries. Also offered as SPAN 236.

LIT 238 (5) C**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 SPAN 238.

Russian**RUSS& 121 (5) C,N,S****Russian I**

For those who have not previously studied Russian. Intro to Russian, emphasizing speaking, listening and reading comprehension. Covers the writing system and basic grammar concepts. Studies culture and contemporary customs. Prereq: Eligibility of ENGL& 101 (C).

RUSS& 122 (5) C,N,S**Russian II**

Continuation of RUSS& 121. Emphasis on speaking, reading, writing and grammatical concepts to ensure proper pronunciation in simple conversation. Covers reading simple texts. Prereq: RUSS& 121.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN **Watch Technology**
NAME TO PREFIX
Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

RUSS& 123 (5) C,N,S
Russian III

Continuation of RUSS& 122. Emphasis on speaking, reading, writing and grammatical concepts. Continued development of proper pronunciation, facility with conversation and the ability to read texts with the aid of a dictionary. Prereq: RUSS& 122.

RUSS 299 (2-5) C
Independent Study for Russian

Independent study of selected topics in Russian arranged with instructor. Prereq: Permission.

Spanish

SPAN 100 (4.5) C
Comparative Spanish Grammar

Systematic analysis of English and Spanish grammatical structures, with practical exercises on selected grammatical points suggested by students.

SPAN 110 (4.5) C
Basic Spanish Conversation

Emphasis on developing speaking skills. Augments skills developed in Elementary Spanish. May repeat the course once to earn up to 9 credits.

SPAN& 121 (5) C,N,S
Spanish I

For students who have not previously studied Spanish. Covers fundamentals of grammar and syntax, oral and written exercises, pronunciation, reading and conversation and cultural aspects of the countries in which Spanish is spoken. Practice outside class using an online workbook required.. Recommended: 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 210 (4.5) C
Intermediate Conversation

Emphasis on developing speaking skills. Augments skills developed in SPA 210. May repeat once to earn up to 9 credits. Prereq: SPAN& 123 or SPAN 110.

SPAN& 221 (5) C,N,S
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,S
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,S
Spanish VI

Continuation of SPAN& 222. Prereq: SPAN& 222 or permission.

SPAN 236 (5) C
Latin American Colonial Literature

Surveys 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
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,S
Independent Study in Spanish

Independent study of selected topics in Spanish arranged with instructor. Prereq: Permission and completion of 100 and 200 series or equivalent.

Vietnamese

A three-course sequence in Vietnamese for beginners. Learn basic communicative skills in modern conversational Vietnamese. Emphasizes the systematic study of phonics, basic grammar, everyday expressions and vocabulary and background in culture and customs.

VIET& 121 (5) S
Vietnamese I

Prereq: SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

VIET& 122 (5) S
Vietnamese II

Prereq: VIET 121, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

VIET& 123 (5) S
Vietnamese III

Prereq: VIET 121 & VIET 122, SLEP/ASSET scores indicating ENGL& 101 readiness or permission.

VIET& 221 (5) S
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.

LIBRARY INFORMATION RESEARCH

NOTES: All listed Library Research courses transfer to four-year colleges and universities as electives (6-credit maximum).

See also: HUM 187 - Information Resources in Humanities; SSC 101 - Intro to Information Resources for Social Sciences; SSC 187 - Information, Knowledge and Power.

INFO 101 (1-3) C,N,S
Intro to 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 Basics

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 Databases**

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 Research**

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) N,C,S**Researching 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,N,S**Research for the 21st Century**

Builds skills and techniques for success as an online learner and researcher. Through a research project on a global issue, examine various strategies for locating, evaluating and applying information resources with attention to information issues like intellectual property, censorship and freedom of information. Prereq: Placement in ENGL& 101.

INFO 299 (1-3) C,N,S**Special Topics in Library Research**

Individuals or groups explore selected topics and/or special needs in library research.

LINGUISTICS

See Languages & Literature, page 272.

LOGISTICS**LOG 197 (1-5) S****Transportation/Logistics/Cargo Handling Internship**

Optional. Provides significant experience in the areas of transportation, logistics management, or cargo handling and security. Apply classroom learning to real-life logistical issues. Each credit requires 55 working hours.

LOG 235 (3) S**Intro to Transportation & 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 Airport & Seaport 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 customhouse 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 & International Freight Operations**

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, trucks 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.

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 watch-keeping 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 Lifeboatman. 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 fire-fighting 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 fire-fighting equipment, vessel safety equipment, shipboard emergency procedures and survival at sea.

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

Focuses on chart navigation and basic methods of piloting with emphasis on use of charts and nautical publications, the IALA "B" buoyage system and solving standard navigation problems. Covers how 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; and 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.

MGO 137 (2) C
Electronic Navigation

Intro to standard electronic equipment and systems used to aid navigation and communication. Covers radar, gyro compass, depthsounder, Loran C, RDF, GPS, GMDSS and radiotelephone. Includes training in radar piloting and collision avoidance theory using SMA's computer radar simulator.

NOTE: This course is not designed to satisfy the requirements of either 46 CFR 10.480 or 15.815. Students pursuing the license option will need to take a USCG-approved radar observer course from an organization so certified by the Coast Guard.

MGO 140 (3) C
Nautical Rules of the 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 (4-5) 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.

MTS 201 (2) C**Naval Architecture**

Survey of ship design and construction of all types of vessels. Emphasis on basic naval architecture and management considerations regarding ship structure. Includes hull structure and components, vessel design process, design stresses, tonnage measurements and load line assignments.

MTS 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.

MTS 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.

MTS 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**Marine Diesel Engine Maintenance & Operation**

Theory, fundamental operating procedures, troubleshooting and repair of marine diesel engines. Applied training in diesel engine labs.

MTS 221 (4) C**Applied Marine Electricity**

Applied course in AC and DC motors, generator applications and electrical theory to typical marine equipment. Covers 3-phase circuits and transformers. Operate marine electrical equipment in the laboratory, on a panel board simulator and aboard SMA's training vessels (dockside). Prereq: MGO 127 or permission.

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**

Emphasizes routine maintenance, troubleshooting and repair of marine hydraulic equipment. Disassemble, analyze and reassemble various hydraulic components through simulation models.

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 Marine Diesel Engines**

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.

MTS 263 (3) C**Propulsion Systems**

Focuses on the principles, operation, maintenance and repair of select propulsion systems. Includes design and application of engines and related systems such as fuel, lubricating, cooling, exhaust and heat recovery. Includes reduction gears, shafting, bearings and propellers.

MTS 284 (2) C**Shipboard Pollution Prevention**

Using a non-technical format, review issues in pollution prevention and control as they impact on the duties and tasks performed by deck and/or engineering personnel onboard ship.

MTS 285 (3) C**Marine Boilers**

Combines theory and applied training in operating steam boilers. Covers the principles, operation, maintenance and repair of marine boilers.

MTS 294 (2) C**License Seminar**

Seminar on licensure knowledge requirements for deck/engineering candidates preparing to take the U.S. Coast Guard deck/engineering exams. Learn to consult and reference the Code of Federal Regulations, Title 46 and other publications.

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 Laboratory Courses**• SOUTH •****MATH 079 (2) S****Math SAT Prep**

Covers percents, fractions, linear equations, systems of equations, quadratics, factoring, word problems, angles, triangles, area perimeter, circles, averages, data interpretation and functions.

MATH 080 (1-5) N,S**Preparatory Mathematics**

Focuses on activities that will deepen understanding of algebra and develop attributes of successful students.

MATH 086 (5) 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) S**Geometry II**

Continuation of MATH 086. Covers perimeter and area of polygon, circles, three-dimensional (solid) geometry and intro to right triangle trigonometry. Calculator required. Prereq: MATH 086 with a 2.0 or higher.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN **Watch Technology**

NAME TO PREFIX
Watch Technology **HIN**

Common Course Numbering explanation is on page 186.

Math Lecture Courses**• NORTH • CENTRAL • SOUTH •**

**Indicates courses which are also offered as laboratory courses at South.*

MATH 080 (5) S
Arithmetic Skills

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. Prereq: none (N); placement exam (C,S).

MATH 083* (5) S
Arithmetic

High school-level course emphasizing the structure of the number system. Review of fundamental arithmetic, particularly the addition and subtraction of fractions and decimals. Intro to elementary algebraic concepts and primary concepts of probability, statistics and geometry. Reviews problem-solving strategies and applications. Prereq: Basic computational math skills.

MATH 084* (5) C,N,S
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 (C,N); MATH 083 or higher (S).

MATH 085* (5) C,N,S
Algebra II

Factoring polynomials; rules of exponents; solving quadratic equations and graphs; roots and radicals; solving rational equations; problem-solving. Prereq: MATH 084 or higher or placement exam (C,N).

MATH 084/085 SEQUENCE (5 EA.) C,N
Algebra I & II, Express

Real numbers, linear equations, linear inequalities, systems of linear equations in two variables, polynomials and factoring, rational expressions and equations, radical expressions and equations, quadratic equations and problem-solving. Prereq: MATH 081 or placement.

MATH 089 (1-5) C,N,S
Independent Study

MATH 090 (1-5) 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
Descriptive Statistics with Algebra I

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
Descriptive Statistics with Algebra II

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 permission; eligible for ENGL& 101.

MATH 094 (5) C,S
Introductory Algebra 1/2

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 COM-PASS core of 48.

MATH 095 (5) C,S
Intermediate Algebra 3/4

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 097 (5) 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. Prerequisite: Placement or Math 085 or Math 097 with 2.0 or better.

MATH 102 (5) C,N,S
College Algebra

For students in Math and Science. Bridges the gap between Intermediate Algebra and Pre-Calculus functions. Strongly recommended in preparation for MATH& 141(S). Required for entry into MATH 120 (N). Prereq: MATH 098.

MATH 103 (5) C,N
Geometry & Visualization

Uses physical and computer constructions to investigate Euclidian and some non-Euclidian 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& 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 test.

MATH 109*(replaced by Math& 146)***MATH 110 (3) C,S****Applied Math for Technicians**

Emphasis on applications of mathematics to vocational and technical courses. Prereq: Satisfactory performance on Math placement test.

MATH 111 (5) 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) 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) S**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 116 (5) C,N,S**Applications of Mathematics to Management, Life & Social Sciences**

Emphasizes applications to business, finance, management, or life & social sciences. Covers mathematical models, graphs and exponential and logarithmic functions. May include ideas from statistics and probability. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

MATH 119 (3) C**Mathematics 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) C,N,S**Math for Elementary Education I**

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 QRS requirement for A.A. degree. Prereq: MATH 098 with 2.0 or higher.

MATH& 132 (5) C,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,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**Pre-Calculus I**

Examines the general nature of polynomial, rational, exponential and logarithmic functions, and related functional and algebraic topics. Fulfills QSR requirement for A.A. degree. Prereq: MATH 098 or placement test.

MATH& 142 (5) C,N,S**Pre-Calculus II**

A study of right triangle trigonometry, trigonometric functions, related trig applications, and topics in analytic geometry. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 141 or Placement test.

MATH& 146 (5) N,C,S**Intro to Statistics**

(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**Elements of 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, 152, 163

NOTE: Generally, institutions cover the same material over the entire sequence. However, some topics may be covered at different points in the sequence. It is recommended that students who transfer before completing the entire sequence should consult an advisor.

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 III

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& 152.

MATH 172 (5) C
Math for Elementary School Teachers 3

Covers the mathematics elementary teachers are responsible for teaching at K-8 levels, including algebra and graphing; relationships between time, distance and rate; patterns and functions; quantifying uncertainty, simulating probabilistic situations; sampling; and organizing and interpreting data with one and two variables. Prereq: MATH 132 with 2.0 or higher.

MATH 198 (1-5) C,N,S
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 Statistical Methods

Covers data collection and analysis. Includes elementary concepts of probability and sampling; binomial and normal distributions; hypothesis testing, 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,S
Word Problems for MATH& 151 – Calculus

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 (2) S
Word Problems for 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, similarity transformations and the Jordan form. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 153 or higher or permission or concurrent enrollment.

MATH 224 (5) C,N,S
Vector Calculus

Continuation of MATH& 153. Includes vector-valued functions, vector fields, line and surface integrals and the theorems of Green, Gauss and Stokes. Learn vector operators and the extension of the calculus to the vectors in 2-D and 3-D space. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 153 or higher or permission (N) or concurrent enrollment (C,S).

MATH 238 (5) C,N,S
Differential Equations

Learn linear 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. Fulfills QSR requirement for A.A. degree. Prereq: MATH& 152 or higher; MATH& 163 or strongly recommended.

MATH 239 (5) N
Linear Systems of Differential Equations & Boundary Value Problems

Continuation of MAT 220 and 238. Includes analysis of systems of ordinary differential equations using eigenvalues and eigenvectors, and using the phase plane. Also includes solving partial differential equations and boundary value problems using the method of separation of variables and Fourier series. Fulfills QSR requirement for A.A. degree. Prerequisite: MATH 220 & 238.

MATH 298 (1-5) C,N,S
Special Topics in Mathematics

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.

MEDICAL ASSISTING

Also see Medical Assistant program at SVI.

The Medical Assisting Program includes short options in Medical Office Administration, Medical Reception, Clinical Lab Assisting and Medical Fundamentals for Clinical Research Professionals.

There are basic health requirements needed for many Medical Assisting courses. See Advisor.

AHM 101 – 105 (1 EACH) N

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 101 (1) N
Pathology 1 – Digestive System**AHM 102 (1) N****Pathology 2 – Urinary & Reproductive Systems****AHM 103 (1) N****Pathology 3 – Nervous, Musculoskeletal & Endocrine Systems****AHM 104 (1) N****Pathology 4 – Cardiovascular, Respiratory, Blood, Lymph & Immune Systems****AHM 105 (1) N****Pathology 5 – Skin & Senses Systems, Oncology & Radiology****AHM 117 (1) N****Intro to Lab & Clinical 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, Medical Records & Documentation**

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 & Measurements**

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 Systems**

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 Medication Calculation & 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 231 (1-3) N**Exam Review & Preparation**

For those who have graduated an accredited medical assisting program and who are eligible to sit for the National CMA (Certified Medical Assistant) Exam offered through the AAMA (American Association of Medical Assistants). Variable credit lecture course that can be offered either on campus, or onsite at a facility that requests review for their employees.

AMA 100 (1) N**Intro to Healthcare**

Overview of medical specialties, types of practices and the members of the health care team. Explores personal characteristics, certifications, professional organizations, career opportunities and the role of managed care. Presents a brief history of medicine, as well as the effects of attitudes and culture on the delivery of health care. Prereq: Placement into ENGL& 101 or completion of college English Composition within the last five years.

AMA 101 (2) N**Communications in Healthcare**

Intro to effective communication, both oral and written. Addresses basic psychology related to communication in health care and includes cultural perspectives on illness, life-threatening illness, stress and burnout. Focuses on communication skills required in a medical setting in order to recognize individual needs and ensure accuracy and quality of information exchanged.

AMA 102 (1) N**Legal Concepts**

Intro to legal terms and concepts related to ambulatory health care. Includes risk management, confidentiality, medical records, documentation, the physician's public duties and the principles of medical law terms and issues.

AMA 103 (1) N**Ethical Concepts**

Intro to ethical terms and concepts related to ambulatory health care. Includes medical, ethical and bioethical issues, AAMA Code of Ethics, AMA Ethical Guidelines, allocation of scarce resources, abortion and fetal tissue research, genetic engineering, artificial insemination and surrogacy and dying and death.

AMA 104 (2) N**Office Emergencies**

Provides knowledge of various emergency situations that may occur in a medical office or clinic and the related equipment and actions required of the health care team. Does not qualify for first aid certification, nor does it include practice in CPR.

AMA 105 (1) N**Asepsis & Infection Control**

Provides information vital to all health care workers in infection control in the ambulatory care setting. Includes the process and chain of infection, inflammatory and immune responses, stages of infectious disease, standard (and other) precautions, state and federal laws and regulations, medical and surgical asepsis, sterilization of instruments and equipment. Prereq: Health requirements.

AMA 106 (1) N**Patient History, Documentation & Physical Exam**

Covers first patient contact, including the patient history and important information and initiating the patient medical record and charting methods. Presents the components of a physical examination from the assistant's and physician's perspectives. Prereq: Health requirements.

AMA 107 (1) N**Vital Signs & Measurements**

Take a patient's temperature, pulse and respirations, blood pressure, height and weight. Practice in a simulated ambulatory care setting. Includes normal ranges and abnormalities, factors that affect the vital signs, the physiology of the vital signs and related material. Prereq: Health requirements.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

AMA 108 (1) N
Nutrition & Developmental Basics

Intro to nutrition and digestion through studying types of nutrients, how to read food labels, various life stages and nutrition, therapeutic diets and culture in relation to diet and nutrition.

AMA 109 (1) N
Pharmacology

Explores principles of pharmacology, including history, origin, sources, properties, uses and effects of drugs on living organisms. Covers uses and names of drugs, regulations and legal classifications, the PDR and other drug reference sources. Examines drug actions, routes of administration and forms of drugs, as well as the storage and handling of medications and controlled substances and emergency medications.

AMA 110 (1) N
Intro to Lab Safety

Focuses on safety, laws and regulations concerning the physician's office laboratory as well as an intro to the lab's departments, personnel and testing procedures. Covers quality control, lab requisitions and reports, specimen collection and the use of the microscope.

AMA 112 (1) N
Credentials & Employment

Preparation for obtaining appropriate credentials, certification and registration, and for the examination. Focuses on the medical assistant and offers information on credentialing of various allied health professionals such as limited x-ray technician, lab assistant, medical transcriptionist, medical office manager and EKG technician. Develop a job search strategy, prepare a résumé and cover letter, complete an employment application and learn about interviews.

AMA 114 (1) N
Basic Psychology Principles

Covers principles of psychology as well as the various theories of Jung, Erickson and others. Studies influences on behavior including heredity, culture and environment. Prereq: 2.0 GPA and permission.

AMA 115 (1) N
HIV/AIDS

Includes curriculum topics for a 7-hour HIV/AIDS education program as outlined by the Washington State Department of Health. Includes the etiology and epidemiology of HIV, transmission and infection control, testing and counseling, clinical manifestations and treatment, legal and ethical issues and psychosocial issues.

AMA 116 (1) N
Principles of IV Therapy

Presents the theory of intravenous (IV) therapy and its application in ambulatory care. Includes related anatomy and site selection, equipment and supplies, ongoing maintenance, calculations, risks and complications. Also covers professional standards, national and state laws and the role of the medical assistant. Prereq: 2.0 GPA and permission.

AMA 120 (1) N
Front Office Basics

Intro to medical front office responsibilities and functions. Covers the office environment as well as computer basics and their medical applications, telephone techniques and basic triage.

AMA 121 (1) N
Patient Scheduling

Learn patient scheduling in an ambulatory care setting. Includes basic triage skills in gathering patient information verbally.

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 (2) N
Intro to Medical Insurance & Coding

Provides knowledge of the history and evolution of medical insurance in this country and the terminology necessary to understand and submit claims. Compares various types of medical insurance, as well as DRGs and MCO models and legal and ethical issues.

AMA 170-181 (1-13) N
AP/Terminology/Pathology 1-12

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 170 (2) N
AP/Terminology/Pathology 1

Intro
Cavities and regions of the body, anatomical planes and directional terms and divisions of the spine.

AMA 171 (1) N
AP/Terminology/Pathology 2
Skin & Senses

AMA 172 (1) N
AP/Terminology/Pathology 3
Digestive System

AMA 173 (1) N
AP/Terminology/Pathology 4
Male Reproductive/Urinary Systems

AMA 174 (1) N
AP/Terminology/Pathology 5
Female Reproductive System

AMA 175 (1) N
AP/Terminology/Pathology 6
Nervous System

AMA 176 (1) N
AP/Terminology/Pathology 7
Endocrine System

AMA 177 (1) N
AP/Terminology/Pathology 8
Musculoskeletal System

AMA 178 (1) N
AP/Terminology/Pathology 9
Cardiovascular System

AMA 179 (1) N
AP/Terminology/Pathology 10
Respiratory System

AMA 180 (1) N
AP/Terminology/Pathology 11
Blood/Lymph System

AMA 181 (1) N
AP/Terminology/Pathology
12 Specialties: Cancer, Radiation, Pharmacology & Psychiatry

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 (1) N
Medical Office Management

Intro to managing a medical office. Explore management styles, teamwork supervision, travel arrangements, time management, marketing, financial management, facility management and liability coverage. Create a procedure manual and a marketing brochure. Covers HR policies, hiring, training, evaluating, dismissing employees, conflict resolution, personnel records and laws.

AMA 240 (1) N
GYN/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 System/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 (2) N
Medication Calculations & 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. Prereq: Health requirements.

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
Urinalysis

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**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 (7) N**Medical Assisting Externship**

Provides the opportunity to practice (unpaid) Medical Assisting skills and gain valuable experience in the ambulatory health care setting. Share experiences and information. On the site, the student is guided by the extern 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. Prereq: Permission.

METEOROLOGY**MEY 100 (5) C,N,S****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 (1-5) C,N**Special Topics**

Seminar on selected topics or activities in meteorology. Prereq: MEY 100 or permission.

MEY 299 (1-5) C,N**Independent Study**

Independent study of approved topics in meteorology. Prereq: MEY 100 and permission.

MUSIC**MUSC 100 (5) C,N,S****Music in the 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) N**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 106 (5) S**Experience Rhythm**

Learn the basics of rhythm for a variety of musical styles. Create your own rhythm-based music, such as drumming, rap and dance music. Open to everyone.

MUSC 109 (5) S**World Beat: Global Studies Through Music**

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,S**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) N,S**Music in the United States**

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,S**Rock Music – History**

Examines rock music as a musical, social, cultural, economic and political force in the United States. Emphasizes early rock music development.

MUSC 117 (5) 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 (2-3) C,N,S**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,S**Intermediate Group Instruction – Voice**

Continuation of MUSC 119. Prereq: MUSC 119 or permission.

MUSC 125 (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**

Class piano for general student to develop reading skills and technical proficiency.

MUSC 127 (2) C,N,S**Intermediate Group Piano I**

Class piano for students with previous keyboard experience. Prereq: MUSC 126 or permission.

MUSC 128 (2) C,N,S**Intermediate Group Piano II**

Continuation of MUSC 127. Prereq: MUSC 127.

MUSC 130, 134-139, 171-173 (1-2 EA) C,N,S**Individual Instruction Series**

Credit hours vary. May be repeated. An additional fee is charged for all individual instruction in this series. Prereq: Permission.

MUSC 130 (1-2) C,N,S**Individual Instruction: Voice****MUSC 134 (1-2) C,N,S****Individual Instruction: Woodwinds****MUSC 135 (1-2) C,N,S****Individual Instruction: Percussion****MUSC 136 (1-2) C,N,S****Individual Instruction: Composition****MUSC 137 (1-2) C,N,S****Individual Instruction: Harpsichord**

MUSC 138 (1-2) C,N,S
Individual Instruction: Guitar

MUSC 139 (1-2) C,N,S
Individual Instruction: Intermediate Guitar

MUSC 171 (1-2) C,N,S
Individual Instruction: Piano

MUSC 172 (1-2) C,N,S
Individual Instruction: Strings

MUSC 173 (1-2) C,N,S
Individual Instruction: Brass

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,N,S
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,N,S
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,N,S
Music Theory III

Continuation of MUSC& 142. Prereq: MUSC& 142.

MUSC 144 (2) S
Vocal Jazz Ensemble

Small vocal ensemble which performs jazz music.

MUSC 145 (2) C,S
Pop Vocal Ensemble

Singing group featuring pop, Broadway show tunes and jazz. Focus on enjoyment and enrichment. Performances quarterly.

MUSC 146 (5) C
Jazz Ensemble I

Jazz Ensemble is the Jazz performance group for Seattle Central. Participate in jazz combo, duo, trio, quartet and big band settings. Music drawn from representative genres, composers and performers. Prereq: 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. Provides opportunity to learn the art of ensemble playing and singing in the jazz idiom. Focuses on small group and large ensemble rehearsal techniques, practice routines and improvisation. Prereq: 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. Examine and perform avant-garde and contemporary jazz styles in a small group setting. Prereq: Ability to read music at a 12th grade level or higher.

MUSC 149 (2) N
Jazz Combo

Performance class requiring reading and improvisational skills. Develops small ensemble skills in the jazz musician as a vocalist or instrumentalist.

MUSC 150 (1-5) N,S
Studio Jazz Orchestra

Emphasis on big band concept. Covers style and performance techniques. Prereq: Performance ability.

MUSC 151 (2-3) C,S
The Performance Experience

Instruction on presenting a public performance—the skills beyond the notes. Work as soloists or in small combinations. All styles. Prereq: Performance ability.

MUSC 153 (1-2) N
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. Prereq: Ability to perform at group level and permission.

MUSC 154 (1-2) N,S
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. Prereq: 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. Prereq: 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. Prereq: Knowledge of major/minor scales, modes and basic keyboard skills and permission.

MUSC 160 (5) S
The Blues & its Influence

Explores the development of the blues and its influence on jazz, rock, classical music and literature. Covers the social, economic and political forces that shaped African-American experiences in the U.S. as chronicled in blues music.

MUSC 161 (5) C,S
American Popular 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 Performance

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

MUSC 164 (2) S
College Chorus/South Singers
Vocal ensemble. May be repeated for additional credit.

MUSC 165 (1-2) S
Community Chorale
Performs literature for the large choral ensemble. Meets one evening weekly.

MUSC 166 (2) N,S
Vocal Ensemble
Small vocal ensemble performs music from several different periods, including contemporary.

MUSC 171, 172, 173
Individual Instruction Series
See MUSC 130.

MUSC 182 (4) N
Intro to Musical Theater Production
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. Recommended: MUSC 119, 130 and/or DRMA& 101.

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 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) N
Jazz Masters of the Twentieth 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) N
Music History – 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,N,S
Advanced Group Piano I
Continuation of MUSC 128. Technique, repertoire and theory, with emphasis on classical compositions. Prereq: MUSC 128 or permission.

MUSC 222 (2) C,N,S
Advanced Group Piano II
Continuation of MUSC 221. Prereq: MUSC 221 or permission.

MUSC 223 (2) C,N,S
Advanced Group Piano III
Continuation of MUSC 222. Prereq: MUSC 222 or permission.

MUSC& 231 (3) C,N,S
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,N,S
Music Theory V
Continuation of MUSC& 231. Advanced 4-part harmony, especially relating to form and development. Prereq: MUSC 231.

MUSC& 233 (3) C,N,S
Music Theory VI
Continuation of MUSC& 232. Advanced music theory and practice from common practice to chromatic harmony. Prereq: MUSC& 232.

MUSC 298 (1-5) C,S
Practicum in Music
Practicum in various skills in music, such as tutorial 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.

NANOTECHNOLOGY

NANO 101 (5) N
Intro to Nanotechnology
Intro to nanotechnology principles, applications, industry, ethics and careers. Includes basic concepts, properties and applications of relations between nano/microelectronics-mechanical materials, electronics, magnetism, mechanics, fluidics, optics, photonics and smart biological materials. Covers processing, fabrication, modeling and testing used in the field. Prereq: MATH 098. Recommend: one quarter of college-level chemistry.

NANO 220 (5) N
Materials Deposition & Characterization
Learn 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, CHEM& 131, MATH 098 or permission. PHYS& 121 recommended.

NANO 230 (5) N
Nano/Micro Device & Material Fabrication & 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.

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/micro-device, document and report on the project. Prereq: Permission.

NETWORK TECHNOLOGIES

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.

NET 120 (5) C**Network Essentials – CompTIA Network +**

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.

NET 122 (5) C**Network OS 1 – Windows Client Systems**

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.

NET 124 (5) C**Network OS 2 – Windows Server**

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.

NET 126 (5) C**Network OS 3 – Windows Network Infrastructure**

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.

NET 134 (5) C**Network Communications – Enterprise TCP/IP**

Learn to set up, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on major operating systems used 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.

NET 138 (5) C**UNIX for Network Administration**

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.

NET 142 (5) C**Network Management – Cisco I**

Provides experience in 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 techniques. Prereq: NET 122 (may be taken concurrently) or permission.

NET 144 (5) C**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.

NET 146 (5) C**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.

NET 200 (10) C**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.

NEW MEDIA**NME 110,120,130 (6 EA) C****New Media I, II, 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

NOTE: Most courses require concurrent enrollment. Please check program section for specific requirements.

Nursing Assistant - Certified**• CENTRAL •****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.

LPN-RN Transition • CENTRAL •

Nursing experiences continual changes in courses to keep current with medical technology.

NUR 106 (8) C
LPN-RN Transition

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.

NUR 120 (1) C
LPN-RN Transition:
Assessments & Intervention

Integrates critical thinking in practical caregiving situations. Emphasis on principles used in performing selected nursing skills in various contexts. Coreq: NUR 106.

Nursing – Associate Degree
• CENTRAL •**NUR 101 (5) C**
Nursing I: Fundamentals of Nursing

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& 107.

NUR 102 (3) C
Nursing II: Medical-Surgical Nursing

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 & NTR 150.

NUR 103 (4) C
Nursing III – Medical-Surgical Nursing

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& 200 or PSY 206.

NUR 111 (3) C
Nursing Practice I

Apply nursing concepts from NUR 101. Assess four adaptive modes in the clinical setting: physiologic-physical, self-concept-group identity, role function and interdependence. Covers basic assessment and, care planning. Apply principled application of nursing skills in practice lab and clinical setting. Coreq: NUR 101, 122 & MATH& 107.

NUR 112 (3) C
Nursing Practice II

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.

NUR 113 (4) C
Nursing Practice III

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 & PSYC& 200.

NUR 114 (3) C
Nursing Practice

Builds on the foundation established in NUR 111, 112 and 113.

NUR 122 (2) C
Psychosocial Nursing I

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& 107.

NUR 123 (4) C
Pharmacology for Nursing

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 & NTR 150.

NUR 185 (2) C
Gerontology for Nurses

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& 200.

NUR 190, 191, 192 (2 EACH) C
ADN Study Group I, II, III

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.

NUR 201 (2) C**Nursing IVA: 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 211, 206, 216.

NUR 206 (3) C**Nursing IVB: Medical-Surgical Nursing**

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: Developing 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 208, 230.

NUR 220 (2) C**Health Promotions & Managing Care in Nursing**

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 230 (2) C**Transition to Professional Nursing Role**

Covers the transition from the role of student to Registered Nurse. Focuses on the role of the RN in health care, the community and organizations. Emphasizes professional and legal obligations, obtaining and maintaining licensure, professional organizations, continuing education and job searching. Includes preparation for the NCLEX/RN exam. Prereq: Completion of 5th quarter with a 2.5 or higher. Coreq: NUR 208 & 218.

NUR 290, 291, 292 (2 EACH) C**ADN Study Group IV, V, VI**

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.

NUR 299 (1-5) C**Independent Study in Nursing**

Independent study in selected nursing topics under faculty supervision. Prereq: Permission.

**Nursing Assistant – Certified
• NORTH •****NUR 100 (1) N****Modified Fundamentals of Care**

For nursing assistants who have a current, unencumbered WA state NA-C license. To be taken as follow-up or concurrently with NUR 104.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME

HIN Watch Technology

NAME TO PREFIX

Watch Technology HIN

Common Course Numbering explanation is on page 186.

NUR 104 (1) N
Nurse Delegation Training for Nursing Assistants – Special Focus on Diabetes

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

NUR 105 (2) N
CPR & First Aid for Healthcare Providers

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. Co-req: NUR 107.

NUR 107 (12) N
Nursing Assistant – Certified

Covers basic nursing care skills including HIV/AIDS, and 104 hours of supervised lab/clinical training in a long-term care facility. After successful completion students are eligible to take the Washington State NAC exam for certification as a Nursing Assistant. Prereq: CASAS 227 minimum score (reading & listening) or COMPASS 40 minimum reading score within last 3 years.

NUR 108 (2) N
Clinical Hospital Experience for Nursing Assistants – Certified

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.

NUR 110 (1) N
Body Mechanics for Healthcare Providers

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.

NUR 145 (1.5) N
Mental Health & Dementia Training for Nursing Assistants

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.

Licensed Practical Nursing • NORTH •

NUR 115 (2) N
Intro to Patient Care

Intro to supervised clinical experience in a long-term care environment. Includes communication and documentation skills. Coreqs: NUR 116, 117 & 130.

NUR 116 (6) N
Nursing Fundamentals

Provides the theoretical background for basic nursing skills, including intro to nursing process, microbiology, nutrition, medical terminology and math equivalents. Coreqs: NUR 115, 117, & 130.

NUR 117 (2) N
Nursing Fundamentals Laboratory

Demonstration of nursing skills and procedures, and laboratory practice, including communication skills. Coreqs: NUR 115, 116, & 130.

NUR 118 (2) N
Clinical Nursing Skills I

Covers laboratory content linked to NUR 127 and 131. Intermediate level nursing practice. Prereq: 1st quarter NUR courses. Coreq: NUR 127 & 131.

NUR 119 (1) N
Clinical Nursing Skills II

Continuation of NUR 118; theory and labs linked with NUR 128 and 141. Prereq: First two quarters NUR courses. Coreq: NUR 128 & NUR 141.

NUR 126 (3) N
Role of the LPN

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 & 154.

NUR 127 (6.5) N
Medical/Surgical Nursing – Child/Adult I

Covers common conditions of illness throughout the life span. Prereq: All first-quarter NUR courses. Coreq: NUR 118 & 131.

NUR 128 (6) N
Medical/Surgical Nursing – Child/Adult II

Continuation of NUR 127. Prereq: First two quarters NUR courses. Coreq: NUR 119 & 141 and permission.

NUR 130 (2) N
Critical Thinking in Nursing Practice

Intro to critical thinking skills in nursing and the nursing process, with practice applying theory and skills. Coreqs: NUR 115, 116, & 117.

NUR 131 (3.5) N
Clinical Nursing Practice I

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 & NUR 127

NUR 133 (1.5) N
Family Nursing Theory

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.

NUR 134 (1.5) N
Family Nursing Clinical

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.

NUR 139 (4) N
Transition to LPN Practice

Provides experience in full-shift nursing care on a work-like schedule. Expands medical/surgical nursing experience. Coreqs: NUR 126 & 154.

NUR 141 (2) N
Clinical Nursing Practice II

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 & 128.

NUR 154 (1) N
Intravenous Therapy Skills

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 & 139.

NUR 155 (1-6) N
Special Topics in Practical Nursing

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.

Nursing – Associate Degree (A.A.S. - T) • NORTH •**NUR 223 (2) N**
Advanced Nursing Skills

With NUR 225 and 231 provides laboratory practice of advanced nursing skills, to prepare for employment as an RN. Prereq: WA state LPN license.

NUR 224 (2) N
Health Promotion Education in Nursing

Provides theoretical knowledge related to planning and implementing educational processes in a health care setting. Prereq: WA state LPN license. Coreq: NUR 226, 227 & 228.

NUR 225 (6) N
Family Nursing

With NUR 231, develops theoretical knowledge of the continuum of wellness and complex health conditions related to family nursing, to prepare for employment as an RN. Prereq: WA state LPN license. Coreq: NUR 223 & 231.

NUR 226 (1.5) N
Care Management & Leadership in Nursing

Intro to theoretical foundations of leadership in nursing. Emphasizes leadership, change and motivational theories, conflict management, problem-solving and group dynamics. Includes principles of time management and delegation. Prereq: WA state LPN license. Coreq: NUR 224, 237 & 238.

NUR 227 (7) N
Complex Medical/Surgical/Psychiatric Nursing

Expands theoretical knowledge and nursing care related to various complex medical/surgical and psychiatric health conditions throughout the life span. Prereq: WA state LPN license. Coreq: NUR 228.

NUR 228 (5) N
Complex Nursing Medical/Surgical/ Psychiatric Clinical Practice

Covers supervised ambulatory, community-based, acute or long-term care practice (medical-surgical) which enhances nursing skills in order to plan and implement care for patients with acute medical/surgical illnesses and psychiatric disorders. Promotes health through the life span. Prereq: WA state LPN license. Coreq: NUR 227.

NUR 231 (4) N
Family Nursing Clinical Practice

With NUR 223 and 225, prepare for work as an RN. Clinical hours focus on family nursing, normal growth and development, and adaptation of children and families to illness. In a supervised pediatric setting, practice assessment, planning, implementing care, and gain clinical experience with childbearing. Prereq: WA state LPN license.

NUR 233 (0.5) N
Advanced Nursing Skills II

Provides theory and laboratory practice of advanced nursing skills. Prereq: WA state LPN license. Coreq: NUR 226, 234, 237 and 238.

NUR 234 (1.5) N
Implementation of Health Promotion & Health Care Education in Nursing

With NUR 224 provides theory and practical experience in planning health promotion and health education activities. Prereq: WA state LPN license. Coreq: NUR 226, 233, 237 and 238.

NUR 235 (1.5) N
Legal Aspects/Care Systems

Understand the role of a Registered Nurse in health care, the community and other health organizations. Explore the history of nursing, current health care, nursing and job market trends. Work with case studies involving legal and ethical nursing issues. Includes Washington State Nurse Practice, licensing, and uniform disciplinary laws and OBRA regulations. Intro to health care systems, funding, organization and function. Prereq: Successful completion of the first 2 quarters with 2.0 or better in all required courses. Coreq: NUR 223, 227 and 228.

NUR 237 (3) N
Advanced Medical/Surgical Nursing Care

Covers theory needed to plan and implement culturally competent care for diverse populations related to various complex conditions of illness throughout the lifespan. Study how this care may impact treatment modalities. Prereq: LPN license in Washington state. Coreq: NUR 224, NUR 226 and 238.

NUR 238 (5) N
Transition to Registered Nursing Practice

Provides supervised ambulatory, community-based, acute, critical, long-term care practice medical/-surgical. Develop further skills in assessment, analysis, planning, implementation and evaluation. Prereq: WA state LPN license. Coreq: NUR 224, 226 & 237.

Nursing • SOUTH •**NUR 096 (3-5) S**
Intro to Applying Academic Study Strategies

Intro to learning strategies, thinking and metacognitive skills needed to succeed in the Healthcare Pathway and Nursing. Apply skills in class while being mentored. Coreqs: enrollment in LPN prereqs.

NUR 097 (3-5) S
Applying Academic Study Strategies

Continue developing learning strategies, thinking and metacognitive skills while being mentored. Coreqs: enrollment in LPN prereqs.

NUR 098 (3-5) S
Integrating Academic Study Strategies

Consolidate and extend learning strategies, thinking and metacognitive skills while being mentored. Coreqs: enrollment in LPN prereqs.

Certified Nursing Assistant • SOUTH •**NUR 170 (12) S**
CNA – Basic Health Care

Covers basic health care concepts needed to provide nursing care to adults, including maintaining and monitoring patient's health status, clinical AIDS training and CPR. Covers the nurse's role in aspects of aging and disability. Provides clinical experience in a variety of long term care settings. Prereq: CASAS score of 220 or higher in reading and math and attend a CNA orientation at SSCC.

Licensed Practical Nursing • SOUTH •**NUR 171 (12) S**
LPN I Fundamentals of Nursing

Covers concepts of health and wellness, foundations, history, legal ethical principles, and professional and personal boundaries of nursing. Includes medical terminology, total body assessment, nursing process, care plan, critical thinking and communication techniques. Covers health assessment of the body systems, promotion of health across the life span, basic needs of patients, and grief; loss and dying. Studies integumentary, gastrointestinal and urinary systems. Prereq: CNA certificate and all program prerequisites.

NUR 172 (12) S**LPN II Medical Surgical Nursing I**

Analysis and integration of cross-cultural concepts into the nursing process. Covers the pathophysiological concepts of medical surgical nursing, causation of illness and response of the body to current treatment and healing processes of many common illnesses. Includes aging and pharmacological and nutritional concepts. Lab skills correlate to the systems studied. Clinical rotations in long term care facilities. Prereq: NUR 171.

NUR 173 (12) S**LPN III Medical Surgical Nursing II**

Foundations of medical surgical nursing, including pathophysiological principles, the body's attempt to heal and maintain itself, current treatment and promotion of healing. Integrates pharmacological understanding of classes of drugs and the nursing principles of administration and monitoring of medication. Practice in lab and in an acute setting. Prereq: NUR 172.

NUR 174 (6) S**LPN IV Maternity & Newborn Nursing**

Learn skills, and attitudes for providing nursing care in maternal, newborn, pediatric, and infant care settings. Covers psychiatric nursing concepts and principles. Clinical experiences focus on labor, delivery, and pediatric care in inpatient and clinical facilities. Prereq: NUR 173.

NUR 199 (1-12) S**LPN Practicum**

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.

LPN-RN Associate Degree • SOUTH •**NUR 244 (2) S****LPN-RN Transition:****Critical Thinking in Nursing**

Builds on LPN theory and skills. Intro to critical thinking skills, the nursing process and application. Prereq: LPN license and RN program admittance or permission.

NUR 246 (1) S**Nursing Lab I**

Intro to basic concepts of drug therapy and advanced assessments and nursing skills in the obstetric and pediatric setting. Focuses on safe medication administration and nursing care. Emphasizes the role and responsibilities of the nurse in drug therapy. Prereq: Admission to program. Coreq: NUR 245, 247 and 249.

NUR 247 (5) S**Nursing Experience I**

Covers supervised obstetric and pediatric nursing care. Develop nursing skills to plan and implement care for clients through the life span. Focuses on promoting normal growth and development and adaptation of children and families to illness. Practice pediatric assessment, planning and care in a supervised pediatric setting. Coreq: NUR 245, 246 and 249.

NUR 249 (1) S**Health & Wellness**

Intro to theoretical foundations of health promotion and wellness maintenance across lifespan in a variety of health care settings. Coreq: NUR 245, 246, 247.

NUR 252 (3) S**Nursing Role – Leadership/ Management/Ethical & Legal Issues**

Intro to theoretical foundations of leadership in nursing. Emphasizes leadership, change and motivational theories, conflict management, problem-solving, and group dynamics. Addresses time management, delegation, ethical and legal issues. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 255 and 257.

NUR 255 (4) S**Nursing Theory II – Psychosocial/Medical Surgical Nursing**

Covers psychiatric disorders of clients in acute care and theory and practice of psychosocial assessment and therapeutic interventions for various psychiatric disorders. Work in supervised psychiatric and acute care settings. Focuses on teaching. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 252, 257.

NUR 257 (5) S**Nursing Experience II**

Covers supervised ambulatory, community-based, acute or long term care practice (medical-surgical). Learn to plan and implement care for clients through the lifespan. Clinical hours focus on the psychosocial assessment and therapeutic interventions in psychiatric disorders in a supervised psychiatric care setting. Prereq: NUR 245, 246, 247, 249. Coreq: NUR 252, 255.

NUR 265 (5) S**Nursing Theory III – Medical/Surgical Nursing**

Plan and implement advanced care related to various complex illnesses. Prereq: NUR 252, 255, 257. Coreq: NUR 266, 267, and 270.

NUR 266 (1) S**Nursing Lab II**

Focuses on concepts of drug therapy and develops knowledge essential for safe medication administration of drugs that affect gastrointestinal, ocular, musculoskeletal, urinary and gynecological function and drugs used in the treatment of cancer and anti-infective medications. Covers the role and responsibilities of the nurse in drug therapy. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 267, and 270.

NUR 267 (3) S**Nursing Experience III**

Provides a choice of clinical observation opportunities in acute care to expand clinical skills. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 266, and 270.

NUR 270 (3) S**Senior Practicum**

Carry out full-shift nursing care and advance capabilities in a medical-surgical acute care setting. Focuses on continuity of care for clients with complex illnesses. Prereq: NUR 252, 255, 257. Coreq: NUR 265, 266, and 267.

NUTRITION**NTR 150 (5) C,N,S****Human Nutrition**

Intro to nutrition, with an emphasis on the relationship of nutrition to growth, development, health, physical and mental functioning. Examines sources, functions, interrelationships and human requirements of proteins, carbohydrates, fat, minerals, vitamins and water. Includes changes in energy and nutrient requirements throughout the life cycle. Prereq: Eligible for MATH 084 and ENGL& 101 (C).

NTR 155 (5) C,N**Advanced Human Nutrition**

Covers contemporary topics in nutrition. Emphasis on origins of the American diet, nutrition's role in disease and behavior and the safety of the food supply. Prereq: NTR 150.

OCEANOGRAPHY**OCEA& 100 (5) C,N,S**
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.

OCEA& 101 (5) C
Intro to 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 O84.

OCEA 298 (1-5) C
Special Topics: Oceanography

Selected topics or activities in oceanography. Prereq: Permission.

OCEA 299 (1-5) C
Independent Study

Study of selected topics in oceanography. Prereq: OCE 100 and permission.

OPTICIANRY, SCHOOL OF**OPH 100 (2) C**
Orientation to Ophthalmic Dispensing

Intro to optical mechanics, ophthalmic dispensing and optics and products. Overview of the optical business and the job of the ophthalmic dispenser. Prereq: Eligibility for ENGL& 101, MATH 110 and permission.

OPH 101 (5) C
Optical Theory I

Focuses on ophthalmic lens optics and eye-glass fabrication process. Intro to practical application of ophthalmic lens equations. Includes study of powers of spectacle lenses including ophthalmic prisms and aberrations.

OPH 102 (4) C
Optical Theory II

Continuation of OPH 101. Introduces reflection and refraction principles. Emphasis on light theories, propagation, ray tracing, plane surfaces and prisms.

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.

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.

OPH 106 (5) C
Contact Lens Technology 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.

OPH 107 (5) C
Ophthalmic Dispensing I

Intro to responsibilities of the ophthalmic dispenser, including facial measurements, cosmetic considerations, frame fitting and selection based on prescription. Includes practical projects, role-playing and demonstrations.

OPH 108 (5) C
Ophthalmic Dispensing II

Covers ophthalmic 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.

OPH 110 (3) C
Optical Lab Technology I

Covers lens surface grinding, ophthalmic laboratory procedures, laboratory safety procedures, lens planing and design as related to eyeglass fabrication and basic optical terminology. Prereq: Eligibility for ENGL& 101 and MATH 110.

OPH 111 (3) C
Optical Lab Technology II

Continuation of OPH 110. Intro to lab machinery, including applications, maintenance and repair, operation of focimeter, application of optical instruments and tools. Covers ophthalmic lens inspection process.

OPH 112 (3) C
Optical Lab Technology III

Continuation of OPH 111, with emphasis on lens edging process. Covers manual skills, processing flow of the finishing laboratory, lens standards and insertion of hand-edged projects into plastic and metal frames.

OPH 113 (5) C
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 197, 198, 199 (2-5) C
Work Experience – Opticianry

Earn work experience credit in the field of opticianry. Prereq: Permission.

OPH 203 (5) C
Contact Lens Technology II

Covers basic fitting techniques of hard and soft lenses. Includes patient instruction and contact lens adjustments. Examines bifocal, scleral and specialty lenses.

OPH 204 (6) C
Contact Lens Technology III

Continuation of OPH 203. Emphasis on available lenses, solutions and accessories; diagnostic and fitting skills; development of biomicroscopy and keratometry skills.

OPH 205 (2) C
Contact Lens Technology IV

Continuation of OPH 204. Emphasis on ocular surfaces in interaction with foreign objects, ocular pharmacology and the refractive examination.

OPH 211 (5) C
Finishing II

Continuation of finishing laboratory skills, with emphasis on efficient production flow. Includes layout of multi-focal lenses and study of plastic lenses and tinting.

OPH 212 (5) C
Finishing III

Continuation of OPH 211. Emphasis on efficiency, speed and accuracy. Includes finishing procedures for special lenses, frames and mountings.

OPH 215 (3) C
Benchwork Procedures

Independent work on projects to develop production skills and workmanship. Lab time is scheduled, but students choose project completion date.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

OPH 295, 296, 297 (3 EA) C
Ophthalmic Dispensing Business I, II & III

Acquire real-world opticianry experience through practice in a retail optical store on campus under direct supervision of a Washington state-licensed optician. All business functions, including sales and management, are administered by student teams, over three academic quarters. Fully develop salesmanship, business plans and implementation. Prereq: Completion of first-year requirements.

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

Typical workshops include advanced ophthalmic skills incorporating new technology, critical thinking and problem-solving. Pursue professional areas of interest.

PARENT EDUCATION**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 with their child 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	040, 041, 042	(2.5)	C
FAM	047, 048, 049	(3)	S
FAM	050, 051, 052	(2.5)	C
FAM	053, 054, 055	(3)	S
FAM	060, 061, 062	(2.5)	C
FAM	063, 064, 065	(3)	S
FAM	070, 071, 072	(2.5)	C
FAM	073, 074, 075, 079	(3)	S
FAM	080, 081, 082	(2.5)	C
FAM	083, 084, 085	(1-3)	S
FAM	090, 091, 092	(2.5)	C
FAM	093, 094, 095	(1-3)	S
FAM	145, 146, 147, 148	(1-3)	N
FAM	149	(1-3)	N
FAM	155, 156, 157, 158	(1-3)	N
FAM	165, 166, 167, 168	(1-3)	N
FAM	175, 176, 177, 178	(1-3)	N
FAM	185, 186, 187, 189	(1-3)	N
FAM	195, 196, 197, 198	(1-3)	N

FAM 180 (1-5) N

Special Topics for Parents of Young Children

Online Distance Education. Covers topics for parents and those who work with children on the care and teaching of young children.

FAM 181 (2-6) 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, 183 (1-5) N

Special Topics

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.

PASTRY

See *Culinary Arts*, page 220-225.

PHARMACY TECHNICIAN

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.

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 & 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

OTC Drugs

Overview and uses of drugs available without prescriptions (over-the-counter drugs).

PHA 140 (2) N

Sterile Products & Aseptic Technique I

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 Products & Aseptic Technique 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 (1-4) 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 (3-13) 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 Prep

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

Intro 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
Contemporary 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& 106 (5) C,N,S
Intro to Logic

Examines the principles of Aristotelian and symbolic logic, deductive argument and proof. Covers the meaning of language and its place in the reasoning process. Includes the application of logic to other fields.

PHIL 110 (5) C,N,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.

PHIL 111 (5) N
Intro to Bioethics

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.

PHIL 118 (5) C,N,S
Practical Reasoning & Decision-Making

Emphasizes a non-symbolic approach to logic and critical thinking. Emphasis on analyzing and evaluating real life examples of reasoning.

PHIL& 120 (5) C,N,S
Symbolic Logic

Symbolic logic provides a tool for analyzing and evaluating statements and deductive arguments. Focuses on both sentence and quantificational logic. Covers the meaning of language and its place in the reasoning process. Fulfills QSR requirement for AA degree. Prereq: MATH 098.

PHIL 160 (5) C
Historical Intro to the Philosophy of Science

Covers the historical development of selected concepts from science and the philosophy of science.

PHIL 215 (5) C,N
Intro to Ethics

Deals with questions: "What am I to do" and "why"; "What am I to be"; and "How can I be what I choose to be" Examines ethical principles of Aristotle, Mill, Aquinas, Kant, existentialism and situation ethics. Includes current problems in medical ethics. Explores ideas of duty, justice, responsibility, virtue and human excellence.

PHIL 220 (5) N
Environment & Human Rights

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.

PHIL 240 (5) C
Liberation Ethics

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.

PHIL 245 (5) C
Conceptualizing Race/Confronting Racism

Focuses on questions and topics of race. What is race? Do/should races exist? What is the nature of racism? What is the relationship between racism and other forms of oppression? Is there only one primary system of oppression? What, if any, is the nature of the relationship between believing that races exist and being a racist? Can we/should we eradicate racism? Is celebrating the distinctive features of racial identity racist or anti-racist? Prereq: Eligibility for ENGL& 101.

PHIL 250 (5) C
Feminist Philosophical Perspectives

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.

PHIL 255 (5) C
Marxist Philosophy Examined

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 Eurocentric? 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.

PHIL 267 (5) C,N,S
Philosophy of Religion

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.

PHIL 298 (1-5) C,N,S
Special Topics in Philosophy

Independent study in selected philosophical topics under faculty supervision. Prereq: Permission.

PHIL 299 (3-5) C,N,S
Special Problems in Philosophy

Examines great philosophical questions and philosophers by instructor and student agreement.

PHLEBOTOMY

Also see Phlebotomy Program at SVI.

AHE 118 (5) N
Intro to Phlebotomy 1

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 2

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.

**PHOTOGRAPHY –
COMMERCIAL PHOTOGRAPHY****PHO 111 (4) C**
Camera Techniques I

Learn the functions and operation of the DSLR camera, lenses, and light meter. Study manual camera controls: shutter, aperture, and depth of field. Learn file formats and digital image capture, lens and flash functions, light meter and techniques to determine optimum exposures.

PHO 112 (3) C
Camera Techniques II

Learn more about the dSLR camera, large format electronic flash and specialty light modifiers. Emphasis on studio product photography including food, apparel, liquids and catalog. Learn to assist a photographer and collaborate with a team.

PHO 113 (3) C
Camera Techniques III

Learn more about large format electronic flash, specialty light modifiers and strobe lighting systems in a studio environment. Emphasis on studio product photography including stop motion, hi key and fill flash. Learn presentation skills including web presence. Assist senior students.

PHO 121 (4) C
Lighting Techniques I

Covers laws, principles and practices of lighting of inanimate objects, including lighting ratios; tungsten light sources; positioning; contrast control; and composition. Analyze photos to understand lighting and demonstrate safety procedures with studio grips and lighting equipment.

PHO 122 (4) C
Lighting Techniques II

Explore posing and lighting people through tungsten lighting techniques, light controls and basic "subject lighting" setups such as Broad, Short, Butterfly, Low-Key and Hi-Key. Learn 3-dimensional contrast in a studio setting, explore theme-based lighting and demonstrate set construction skills.

PHO 123 (3) C
Location Techniques

Learn logistical planning, technical and creative skills to successfully shoot on location, including strategies and equipment for set construction on location. Practice using skills of a location photographer, assistant, and location scout. Serve as assistant to second-year students.

PHO 131 (3) C
Digital 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, finishing and presentation techniques. Learn folder hierarchy, metadata, copyright and database file management.

PHO 132 (3) C
Digital 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 (4) 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) C
Work Experience: Photography

Earn work experience credit in the photography field. Contact the Photography program for details.

PHO 214 (3) C
Catalog 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 I

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 (3) 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 (3) 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 (3) 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 II

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 Pt. Townsend Portfolio Shoot-out.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

PHO 276 (3) C
Portfolio Show

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.

PHYSICAL EDUCATION

NOTE: All physical education courses are co-ed.

PEC 104 (2) C,N
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 Arts

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 110 (2) N,S
Aerobics

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 113 (2) C
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) N
Beginning Tennis

Intro to the rules, history, techniques, skills and strategies of tennis. Reinforce and apply learning through game play and competition.

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) N
Intermediate Tennis

Provides the opportunity to practice the proper techniques and strategies associated with tennis and focus on advanced technical skills.

PEC 129 (2) 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
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) N
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 133 (2) S
Soccer

Intro to basics, including offense and defense, current strategies, techniques, rules and trends. Practice basic skills in game situations. Emphasizes practical, skill-based training, technique and equipment.

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) 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. Connect 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
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) N
Jogging

Develop 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) 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) N,S
Intermediate 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) N
First Aid & Personal Safety

American Heart Association Heartsaver First Aid CPR/RED certification (adult, child, infant). Provides instruction in advanced rescue skills including two-person CPR, pocket mask. BLS for healthcare providers certification is available as an option.

PEC 160 (2) C,N
Step Aerobics

Development of cardio-respiratory and musculoskeletal fitness by incorporating choreographed, rhythmic movements performed on a bench or step. Discussions include current fitness-related issues and trends.

PEC 162 (2) N
Step & 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

Improve muscular strength, muscular endurance and flexibility of the upper body, abdominals, back and lower body by using lightweight resistance equipment. Workouts consist of resistance exercise performed to music, stretching and fitness-related discussions.

PEC 170 (2) 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 175 (2) 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 180 (2) N
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 298 (1-5) N,S
Special Topics

Seminar on selected topics and/or activities in physical education. Prereq: Variable, depends on topic.

PEC 299 (1-5) N,S
Independent Study

Independent study of approved topics in physical education. Prereq: Permission.

PHYSICS

PHYS& 100 (5) C,N,S
Physics for 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.

PHYS 107 (5) C,N,S
Intro to Physics

For non-majors. Study basic laws of physics through inquiry and learn to use the scientific method to predict, test, analyze and extend experiments demonstrating key concepts of physics. Perform and author experiments and effectively document observations, experimental designs and analyses.

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.

PHYS 112 (5) S
Technical Physics II

Explores properties of solids, liquids, and gases; temperature and the effects of heat; specific heat, heat transfer, basic thermodynamics, heat engines; wave motion; illumination; refractions, resonance and interference. Prereq: Basic algebra and PHYS 111.

PHYS 113 (5) S
Technical Physics III

Covers electrostatics, direct current circuits, magnetism, electromagnetic induction, alternating current, capacitance, inductance, resonance, vacuum tubes and transistors. Prereq: Basic algebra and PHYS 112.

PHYS& 114 (5) N,C,S
General Physics I with Lab

First of three non-calculus-based courses covering the field of physics. Includes kinematics, vectors, forces, dynamics, work, energy, momentum, and rotation. Lab included. Prereq: MATH 098 (with 2.0 or higher) and placement into ENGL& 101.

PHYS& 115 (5) N,C,S
General Physics II with Lab

Continuation of PHYS& 114. Includes fluids, heat, gas laws, electricity, magnetism and electrical circuits. Lab included. Prereq: PHYS& 114 (with 2.0 or higher) or permission.

PHYS& 116 (5) N,C,S
General Physics III with Lab

Continuation of PHYS& 115. Covers electromagnetic waves, optics, atomic and nuclear physics. Lab included. Prereq: PHYS& 114 (with 2.0 or higher) or permission (N); PHYS& 115 or permission (C,S)

PHYS 118 (5) N**Technical Physics for Electronics**

Intro to the physics of electricity and magnetism. Includes study of energy, work, harmonic motion and waves, electrostatics, magnetism, electrodynamics and electromagnetic waves. Prereq: MATH 106 and SCI 101.

PHYS 198 (5) N**Physics Workshop**

A problem-solving workshop approach to physics topics considered appropriate by the instructor and/or physics faculty. Prereq: Permission.

PHYS& 221 (5) C,N,S**Engineering Physics I**

Calculus-based study of kinematics, dynamics, energy, and momentum in linear and rotational coordinates and Newton's Laws of Motion. Lab included. Prereq: MATH& 151 with 2.2 or higher (C); with 2.0 or higher (N,S) and one year of high school physics.

PHYS& 222 (5) C,N,S**Engineering Physics II**

Covers Maxwell's classical laws of electricity and magnetism which developed from the study of the Laws of Coulomb, Ampere, Gauss and Faraday. Lab included. Prereq: PHYS& 221 and MATH& 152.

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: PHYS& 221 (N); PHYS& 222 (C,S).

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 - Physics**

Independent study of physics problems or topics. Prereq: Permission.

POLITICAL SCIENCE**POLS& 101 (5) C,N,S****Intro to Political Science**

Intro to theory, organization, politics and administration of government. Includes political theory, comparative systems, political socialization, public administration, political parties and elections, the environment and technology, political economy and international relations. Foundation course for political science studies.

POLS 111 (5) C,N**The American Presidency**

Explores the evolution of the American presidency. Includes the presidents' personalities, character, leadership and public relations. Examines presidential campaigns and the roles of the president as Chief Diplomat, Chief Executive, Chief of State, Commander-In-Chief and Chief Bureaucrat.

POLS 112 (5) C,N**The Contemporary World**

Intro to the nation-state system, elements of power and major problems facing nation-states today including demographics, hunger and disease, nuclear proliferation, energy, nationalism and North-South/East-West relations. May be taken for international studies credit as ISP 112.

POLS 170 (5) C,S**Minority Politics in America**

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.

POLS& 202 (5) C,N,S**American Government**

Survey of the origin and development of the U.S. government. Covers Colonial history, the Confederacy and the creation of a federal system, the functions of Congress, the presidency and courts. Includes interest groups, civil liberties, political parties and elections.

POLS& 203 (5) C,N,S**International Relations**

Intro to international and regional governmental organizations. Examines major issues in the international arena including nationalism, rise of the Developing World, imperialism, technology and the arms race, environmentalism and foreign policy. Emphasis on issues which foster or frustrate world peace and prosperity.

POLS 205 (5) C,S**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.

POLS 206 (5) C**Bill of Rights**

Survey of the origin and development of judicial review and concepts of civil rights and civil liberties. Covers due process, free speech, religion and equal protection. Includes background on current U.S. court and legislation decisions.

POLS 213 (5) N**Women & 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.

POLS 217 (3-7) N**Internship in Politics**

Intern as a participant-observer in a political campaign, political party or special interest group. Increase political sophistication by exposure to decision-making experiences. Prereq: Permission.

POLS 220 (5) N,S**Comparative Political Systems**

Covers democratic and authoritarian governments. Includes political and economic systems of wealthier nations and less-developed nations. Examines supranational governments like the United Nations, European and African Unions and transnational trade groups like OPEC, NATO and IMF.

POLS 255 (5) C,S**Government & Politics of the Middle East**

Problems of traditional society versus construction of a modern state. Emphasis on Arab-Israeli relations and impact on international affairs.

POLS 298 (1-5) C,N,S**Independent Study in Political Science**

Independent research and writing on selected political science topics under faculty supervision. Prereq: Permission.

POLS 299 (1-5) C,N,S**Special Problems in Political Science**

Seminar requiring study and written reports on political science topics. Prereq: Permission.

PROFESSIONAL TECHNICAL TEACHER EDUCATION

Bachelor of Applied Science

Students must be accepted into the program in order to take these courses.

PTE 301 (3) S

Workforce Instructional Methods & Materials

Overview of established training principles and practices including adult learning theory, and information literacy through library, internet and other resources. Focuses on five delivery methods: lecture, discussion, demonstration, small group work and on-line learning.

PTE 302 (3) S

Course Development & Design

Study models and processes for course design appropriate to the adult setting. Includes scope and sequence, thematic development, competency-based models of instruction, syllabus development, and assignment of class requirements. Covers program planning, advisory committee work, industry standards and accreditation standards.

PTE 310 (3) S

Managing the Learning Environment

Develop a management plan for determining, obtaining, and maintaining instructional equipment, tools, supplies, and materials. Emphasizes shop, laboratory, and classroom safety practices.

PTE 311 (3) S

Technology in Learning

Identify, evaluate and implement new and emerging technologies according to industry needs. Examine on-line, hybrid, and other emerging technology-based modes of communication to understand current curriculum development practices.

PTE 312 (3) S

American Community College

Explores the history, present status, student diversity, student services, ethical issues and future directions of the American community college. Includes grant proposals, procedures and processes, including researching and developing at least one grant proposal.

PTE 314 (1) S

Professional Portfolio

Document prior work experience by developing an e-portfolio to receive Workforce Experience Practicum credit.

PTE 315 (1-10) S

Workforce Experience Practicum

Credits based on the successful completion of PTE 314. Students must have demonstrated 2-5 years of relevant work experience in their area of interest.

PTE 325 (2) S

Organizational Leadership

Develop leadership skills in a technical environment. Evaluate various leadership theories

PTE 345 (5) S

Adult Learning

Covers adult learning theory, learning styles, learning processes, context, motivation and development.

PTE 401 (3) S

Student Support Guidance

Learn to evaluate student completion theories and develop skills to respond to student needs including scheduling and holding office hours, providing multiple modes of communication, and understanding professional obligations in regard to student contact.

PTE 402 (3) S

Assessment of Learning Performance

Study the process of curriculum evaluation and revision by examining existing research in assessment. Learn to design and develop evaluation processes to be integrated into classroom learning. Includes prior learning assessment, formative assessment and summative assessment linked to learning outcomes. Addresses accreditation standards and processes.

PTE 420 (3) S

Legal Issues & Ethics in Education

Learn how legal implications from local, state and federal sources guide professional practice. Evaluate social, economic and political issues that influence professional ethics and practice.

PTE 460 (3) S

Diversity & Globalism in Education

Examine cultural competence and the effects of globalism in the educational setting.

PTE 468 (3) S

Program Management & Recruitment

Covers all aspects of program management and leadership, including student recruitment and leadership, including student recruitment. Learn about program budgets, staffing, facilities, scheduling, and forecasting. Develop a recruiting plan for their current program or intended area of instruction.

PTE 489 (1) S

Professional Development Certification

Develop a professional development plan per WAC 131-16-92 and attain an Initial Washington State Professional Technical Teacher Certification, which includes CPR and First Aid.

PTE 490 (1-10) S

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 on site to develop and deliver relevant curriculum. Site supervisor and college faculty advisor will evaluate the internship.

PTE 491 (1-10) S

Leadership Internship

Observe, reflect and practice leadership in a technical setting. Find a leadership-based placement in the field of interest and work with a technical manager on site to develop and practice leadership techniques. Site supervisor and college faculty advisor will evaluate the internship.

PTE 495 (1) S

Capstone

Develop a project based on previous classes and internship experiences.

PTE 498 (1-10) S

Special Topics

Special topics in teaching or leadership as agreed upon by the student and a faculty member.

PSYCHOLOGY

PSYC& 100 (5) C,N,S

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.

PSYC 120 (5) C

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

PSYC 160 (5) N
Psycho-Physical Development – The Life Span

Survey of human physical, psychological and social development from infancy through death. Emphasis on major developmental theories, research and methods of studying life-span development.

PSYC& 200 (5) C,N,S
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.

PSYC 207 (5) C,N,S
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.

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. Pre-req: PSYC& 100 or equivalent.

PSYC 210 (5) C,N,S
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 living.

PSYC 217 (5) C

Intro to Probability & Statistics for Psychology

Covers descriptive statistics, probability theory, probabilistic variables and experimental outcomes, distributions, experiments, sampling, hypothesis testing, normal distribution, T-tests and correlation. Prereq: Intermediate algebra.

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 230 (5) C,N,S
Human Sexuality

Survey of current literature on development of sexual behavior. Includes historical, physiological, psychological and social components of sexuality and its deviations. May be taken as SOC 230.

PSYC 235 (5) C,S
Contemporary Problems in Psychology

Major socio-psychological contemporary problems leading to maladaptive behavior and its roots in social disintegration, drug addiction, alcoholism and divorce. Examines violence, sexual harassment and molestation of women and children. Prereq: PSYC& 100 or permission.

PSYC 240 (3) C,S
Psychology of Human Relations

Covers dynamics of organizations and human resources in the workplace: motivational theory, leadership, group processes, organizational theory, participatory management, conflict management and counseling. Primarily for professional-technical students. Prereq: Satisfactory performance on placement test (S).

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
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 255 (5) N
Cognitive Psychology

Overview of the field of cognitive psychology. Addresses current theory and research in the areas of attention, perception, learning, memory, decision-making, language, problem-solving and creativity in both clinical and real world contexts. Prereq: PSYC& 100; ENGL& 101; or permission.

PSYC 257 (5) N,S
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 294 (1-5) C,N
Practicum in Psychology

Practicum in the application of basic psychology principles. Specific seminar and practicum areas and evaluation criteria established by an educational contract. Prereq: PSYC& 100 and permission.

PSYC 298 (1-5) C,N,S
Individual Study in Psychology

Independent study in selected psychology topics under faculty supervision. Prereq: Permission.

PSYC 299 (1-5) C,N,S
Special Problems in Psychology
 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 & Mortgage Elimination
 Learn about 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 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)

RES 120 (1.5) N
Real Estate Principles of Maintenance & Repair
 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)

RES 125 (2) N
Real Estate Math
 Develop skills in basic real estate mathematics using the HP12C programmable calculator. Apply principles for real estate transactions, valuation, finance and other investment analysis. Students bring HP12C calculator to first class or borrow HP12C from the Real Estate Program while supplies last. Recommend RES 100 concurrently. (20 DOL clock hours)

RES 130 (3) N
Green Real Estate
 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)

RES 131 (3) N
Green Building Materials
 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).

RES 132 (3) N
Marketing, Education & Ethics in Sustainable Development
 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)

RES 133 (1.5) N
Energy Efficient Design & Development
 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)

RES 134 (1.5) N
Smart Locations, Integrated Communities, Sustainable Sites & Water Protection
 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)

RES 135 (1.5) N
Healthy Buildings & Indoor Air Quality
 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)

RES 140 (3) N
Real Estate Sales Practice
 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)

RES 141 (3) N
Land Use Principles & Practice
 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)

RES 142 (3) N**Inspecting the Condition of Real Estate**

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)

RES 143 (3) N**Fundamentals of Home Inspection**

Covers home inspection basics: WA laws, rules & 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 & 151 fulfills class and field prereqs for WA Home Inspector License. Prereq: RES 142 or concurrently. (90 DOL clock hours)

RES 144 (4) N**Inspecting Structural Framing & Plumbing Systems**

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)

RES 145 (4) N**Inspecting Exteriors & Roofing**

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)

RES 146 (2) N**Inspecting Heating Systems I**

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)

RES 147 (3) N**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 (3) N**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 (4) N**Inspecting Heat Pumps, A/C, Interiors, Insulation & Ventilation Systems**

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 (1.5) N**Residential Sales & Leasing Documentation**

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 (4) N**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 prereqs for WA Home Inspector License. Recommend RES 142 and/or 143 or concurrently. (40 DOL clock hours)

RES 160 (1) N**Ethics for Loan Originators**

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 (5) N**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 (3) N**Real Estate Loan Originator**

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 (4) N**Real Estate Loan Processing**

Learn to process residential Conventional/Conforming, Subprime, Jumbo, FHA and VA mortgages from application to closing. Use CALYX Point 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 (1.5) N**Loan Origination Automation**

Hands-on training for originating residential loan applications using Interlinq's MortgageWare software. Prereq: RES 165 or RES 166 or concurrent enrollment or real estate experience. (15 DOL clock hours)

RES 170 (3) N**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 (3) N

Intro 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 (1) N

Using Tax-Deferred Exchanges to Your Advantage

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 (1.5) N

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 (1.5) N

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 (3) N

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 183 (3) N

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)

RES 184 (1.5) N

Residential Market Analysis & Highest & Best Use

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 (1.5) N

Residential Appraiser Site Valuation & Cost Approach

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 (3) N

Residential Sales Comparison & Income Approaches

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 financial 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 (1.5) N

Residential Report Writing & Case Studies

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 (1.5) N

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 (1.5) N

Advanced Residential Applications & Case Studies

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 (3) N

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 (2) N

Advanced Escrow Closing System

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 or six months escrow closing experience. (20 DOL clock hours)

RES 195 (3) N

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 (5) N

Seminar in Current 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 (3) N

Principles of Real Estate Management

Intro to basic principles of commercial and residential property management including property analysis, management and planning, marketing, staffing and maintenance of real estate. (30 DOL clock hours)

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

RES 202 (3) N
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 (3) N
Commercial Property Management

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 (3) N
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 para-legals. (30 DOL clock hours)

RES 210 (3) N
Residential Property Investments

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 (3) N
Business Opportunities: Purchase & Sale

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 (3) N
Real Estate Development & 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 taxations 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 in Real Estate Market Analysis

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
Professional Business Practices of Brokerage 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 & 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 Residential Income Properties

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 260 (2) N
Real Estate Finance – Commercial

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 Underwriter

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: Analyzing Markets & Income

Learn research and analysis techniques in the appraisal 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**General Appraisal 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 (2-6) N**Special Projects/Internships in Real Estate**

Provides research opportunities or unpaid work experience in real estate applications similar to actual job environment. Do independent study on special projects. May complete Green RE courses, RES 133, 134, 135, as independent study with weekly lab. Prereq: permission. (20-60 DOL clock hours)

RELIGION**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 (1) C,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.

CHED 304 (5) C**Principles of Higher Education & Professional Training**

Reviews adult learning theory, emphasizing practical skills for successful post-secondary teachers and trainers in allied health disciplines. Includes development of course outlines and syllabi, learning objectives, teaching methods, experiential and non-experiential learning, clinical skills development strategies, and assessment.

RCP 320 (4) C**Acute Care Clinical I**

Learn hospital-based respiratory care and practice direct patient care using basic respiratory care techniques and perform physical assessments. Emphasizes chart review, hand washing, and bronchial hygiene techniques.

RCP 323 (2) C**Pathophysiology for Respiratory Care**

Continue cardiopulmonary assessment and development of the respiratory care plan in the context of respiratory failure, asthma, chronic obstructive pulmonary disease, cystic fibrosis, postoperative atelectasis, interstitial lung disease, neuromuscular disease, bacterial pneumonia, tuberculosis, and sleep disordered breathing.

RCP 328 (4) C**Advanced Therapeutic Approaches**

Emphasizes safe and effective artificial airway care, arterial blood gas (ABG) drawing and analysis, bedside monitoring techniques and non-invasive positive pressure ventilation.

RCP 329 (1) C**Advanced Therapeutic Approaches
Equipment & Techniques**

Apply theory from RCP 328 using models, simulation and laboratory partners, including artificial airway care, arterial blood gas drawing and analysis, bedside monitoring techniques and non-invasive positive pressure ventilation.

RCP 330 (5) C**Acute Care Clinical II**

Learn hospital-based respiratory care and practice direct patient care. Treat patients using basic respiratory care techniques and perform physical assessments. Emphasizes chart review, hand washing, and bronchial hygiene techniques.

RCP 338 (4) C**Fundamentals of Mechanical Ventilation**

The third course in the Respiratory Care Fundamentals series, this course builds upon concepts, knowledge, and skills acquired in RCP 328. Emphasizes on the knowledge and skills needed to safely prepare, institute, monitor and modify mechanical ventilation in the care of the critically ill adult patient.

RCP 339 (1) C**Fundamentals of Mechanical Ventilation
Equipment & Techniques**

Practice theory from RCP 338 using models, simulation and laboratory partners, focusing on safe and effective application of basic, adult mechanical ventilation.

RCP 340 (4) C**Adult Critical Care Clinical I**

Practice direct patient care in a Critical Care Unit and perform the duties associated with the management of the critically ill patient on mechanical ventilation, including ventilator management, set-up, monitoring, weaning, transport and extubation. Perform airway care, bronchial hygiene therapies, oxygen therapy and assessments.

RCP 347 (2) C**Cardiology for Respiratory Care**

Emphasizes the integration of hemodynamic measurements in various clinical applications and critical care monitoring in the care of the critically ill patient. Learn the principles Advanced Cardiac Life Support (ACLS) and the interpretation of electrocardiogram (ECG) data.

RCP 348 (2) C**Advanced Mechanical Ventilation**

Apply mechanical ventilation to patients in the acute care setting.

RCP 349 (1) C
Advanced Mechanical Ventilation Equipment & Techniques

Apply therapeutics learned in RCP 348 on models, simulation and laboratory partners, including initiation, application, maintenance and weaning of mechanical ventilation in many of the specialized circumstances faced in an intensive care unit.

RCP 450 (6) C
Adult Critical Care Clinical II

Work in a Critical Care Unit and perform the duties of management of the critically ill patient on mechanical ventilation, including ventilator management, set-up, monitoring, weaning, transport and extubation. Perform airway care, bronchial hygiene therapies, oxygen therapy, and assessments.

RCP 451 (2) C
Respiratory Care of Infants & Children

An in-depth study of neonatal and pediatric respiratory care focusing on diseases specific to caring for infants and children. Covers fetal growth and development, labor and delivery, resuscitation, disease processes, congenital anomalies, assessment and therapy.

RCP 455 (2) C
Advanced Respiratory Care Pharmacology

Study medications in the critical care setting and pediatric/perinatal disciplines. Emphasizes drugs used to treat emergent cardiac abnormalities, common critical care medications, pediatric/perinatal medications.

RCP 458 (4) C
Fundamentals of Neonatal/Pediatric Respiratory Care

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 459 (1) C
Neonatal/Pediatric Respiratory Care Equipment & Techniques

Apply respiratory care therapeutics in the neonatal/pediatric population using models, simulation and laboratory partners for practice. Focuses on safe and effective application of mechanical ventilation and respiratory care therapeutics.

RCP 460 (6) C
Neonatal/Pediatric Clinical Practice

Practice direct patient care with a clinical assignment in a pediatric or adult critical care setting. Perform ventilator management, set-up, monitoring, weaning, and transport of the critically ill patient during this clinical rotation. Emphasizes hemodynamic monitoring, chest drainage systems, alternative modes of ventilation, and assisting with special procedures.

RCP 462 (1) C
Advanced Practitioner Exam Review

Get familiar with the unique style of the board exams from the National Board for Respiratory Care (NBRC): Recall, Application and Analysis. Based on the Advance Practitioner Registered Respiratory Therapist exam matrix published by the NBRC. Pre-test opportunity to identify areas of improvement is followed by focused review. Practice exams.

RCP 463 (2) C
Advanced Pathophysiology

Emphasizes 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 Rehabilitation & Home Care

Study the concepts, knowledge, and procedures specific to the respiratory care of adults and children with chronic cardiopulmonary disorders, receiving care in an outpatient setting. Emphasizes patient education and health promotion.

RCP 467 (2) C
Advanced Cardiopulmonary Physiology

Covers the immunology and fluid transport of the lung, hemodynamics and pulmonary circulation, and additional concepts of acid base physiology, in the critically ill patient.

RCP 468 (3) C
Advanced Cardiopulmonary Diagnostics

Emphasizes the theory, application and interpretation of pulmonary function regimens, exercise testing, bronchoscopy, blood gas sampling and analysis and polysomnography, as well as equipment, its calibration and quality control.

RCP 469 (1) C
Diagnostic Equipment & Techniques

Using models, simulation and laboratory partners, practice safe and effective application of respiratory care diagnostic equipment and diagnostic procedures across the age spectrum, including spirometry, diffusion studies and lung volume determination, cardiopulmonary exercise testing, and polysomnography.

RCP 470 (6) C
Adult Critical Care Clinical III

Practice pediatric or adult care in a Critical Care Unit and perform ventilator management, set-up, monitoring, weaning, and transport of the critically ill patient. Emphasis on hemodynamic monitoring, chest drainage systems, alternative modes of ventilation, and assisting with special procedures. Students may also apply and compete for clinical residencies with partner institutions where they function as a Respiratory Therapist in a variety of possible settings.

RCP 476 (3) C
Advanced Patient Assessment

Using case studies, use and analyze history, physical examination, lab data, Chest X-Rays, Pulmonary Function Tests and EKG data, and clinical reasoning skills to develop and implement plans of care for the cases. Emphasizes the NBRC Clinical Simulation Exam.

RCP 479 (4) C
Senior Capstone Project

Complete a capstone project such as a QA at a local hospital, a research project, an administrative management project or a community service project related to Respiratory Care.

RUSSIAN

See Languages & Literature, page 272.

SCIENCE**MSC 101 (5) N****Intro to Material Science**

Intro to the molecular structure of different materials and the resulting effects in tensile strength and heat transmission. Emphasis on semiconductors and applications to electronic devices. Prereq: PHYS& 122 and PHYS 118, CHEM& 121 or equivalent; and MATH 118 and 120 or equivalent; or permission.

SCI 090 (5) N,S**Basic Scientific Ideas**

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.

SCI 100 (5) C,N**Intro to Science**

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.

SCI 101 (5) C,N,S**Intro to Physical Science**

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.

SCI 104 (5) C,S**Physical Science**

Intro to the physical world through everyday applications of physical science principles. Examines fundamentals of physics and chemistry in light of the scientific method.

SCI 107 (4) C**Applied Bioengineering**

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.

SCI 110 (5) S**Intro to Robotics**

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.

SCI 111 (1) C,N**Geology Field Day**

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.

SCI 112-118 (1 EA) C,N**Science Field Days**

Series of 1-credit courses consisting of five hours of lecture and a one-day field trip. Requires varying transportation fees.

SCI 112 (1) C,N**Seashore Life**

Explores seashore life in the Pacific Ocean and Puget Sound.

SCI 113 (1) N**Marsh Ecology**

Explore local wetlands and the organisms that inhabit wetlands ecosystems with a focus on the local animals and plants. Field trips. Lab.

SCI 114 (1) N**Field Astronomy**

Covers astronomy from a hands-on perspective in the field.

SCI 116 (1) C,N**Edible Plants of the Northwest**

Focuses on edible and medicinal plants of the Pacific Northwest. Lab credit.

SCI 117 (1) C,N**Wildflowers of the Northwest**

Classification and ecology of lowland to alpine wildflowers of the Pacific Northwest. Lab credit.

SCI 118 (1) C,N**Volcano Field Day**

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.

SCI 119 (3) N**Natural History through Field Studies I**

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.

SCI 121 (5) N**Natural Disasters**

Investigate local and national earthquakes, volcanos, 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.

SCI 129 (3) N**Natural History through Field Studies II**

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. Students should take SCI 119 first.

SCI 131 (5) C**Interdisciplinary Science I**

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.

SCI 132 (5) C**Interdisciplinary Science 2**

Intro to science and scientific method for non-science majors. Covers mechanics, some topics in astronomy, electricity and the importance of science.

SCI 133 (5) C**Interdisciplinary Science 3**

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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN Watch Technology

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

SCI 298 (1-5) C,N,S
Special Topics

Seminar of selected topics or activities in the sciences. Prereq: Variable, dependent on topic.

SCI 299 (1-5) C,N,S
Independent Study

Independent study of approved topics in the sciences. Prereq: Permission.

SENIOR ADULT EDUCATION

FAM 012 (1-3) N,S
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 (1-3) N,S
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) N,S
Positive Growth for Seniors

Includes classes in self-image, writing your life story, decision-making, widowhood, interpersonal communication and similar topics.

SEN 001 (0) N
Avocational Explorations for Seniors

Non-credit course. Provides opportunities for learning avocational skills and developing personal talents, hobbies and interests.

SERVICE LEARNING

SLN 101 (2-3) N
Service Learning & Leadership

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 (2-3) N
Service Learning & Leadership

Continuation of SLN 101. Prereq: Instructor permission.

SLN 103 (2-3) N
Service Learning & Leadership

Continuation of SLN 102. Prereq: Instructor permission.

SOCIAL & HUMAN SERVICES

CDS 197, 198, 199 (3-4) C
Field Practicum: Human Services

Supervised community-based field experience. Apply knowledge and develop skills by working in public and private agencies and organizations. Prereq: Enrollment in SHS program, SHS 106 and 108, ENGL& 102 and permission.

SHS 100 (5) C
Intro to the Human Services

Overview of the human service field with emphasis on the role of the professional. Includes career development, attitudes and values, behavioral and cultural differences, individual and group intervention techniques and community awareness. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 103 (5) C
Social Welfare: Policy and Systems

Intro to social welfare policy, social justice, services and systems, with emphasis on those designed to respond to social issues such as public welfare, child welfare, mental health, chemical dependency, aging, poverty, health, disabilities, and corrections. Prereq or Coreq: SHS 100 and eligible for ENGL& 101 and MATH 084.

SHS 106 (5) C
Principles of 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. Prereqs: SHS 100, 103, and ENGL& 101.

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: SHS 100, 103, and ENGL&101.

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 Substance Abuse..

SHS 197, 198, 199 (3-4.) C
Field Practicum: Social & Human Services

Supervised community-based field experience. Apply knowledge and develop skills by working in public and private agencies and organizations. Prereq: Enrollment in SHS program, SHS 106 and 108, ENGL& 102, and 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 Management & Intervention

Intro to crisis theory and techniques for beginning mental health/human services professional. Emphasis on high-stress populations requiring immediate intervention. Includes psychiatric emergencies, sexual assault, incest, battered women, death and dying, loss, assessment techniques and in-depth interviewing skills. Prereq: Eligible for ENGL& 101 and MATH 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 MATH 084.

SHS 210 (3) C
Multicultural Counseling

Covers effective counseling approaches which take into account client differences in culture, gender, sexual orientation, physical abilities and ethnicity. Learn to interview client group representatives and assess community resources. Prereq: SHS 100.

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 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 – Gay, Lesbian, Bisexual, Transgender 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 MATH 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 students' 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 MATH 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 MATH 084.

SHS 231 (5) C
Pharmacology of Addictions

Overview of the effects of drug use and chemical dependency on the body including physiological, emotional and behavioral effects. Focuses on effects of various chemicals on body systems, drug interactions, and management of chronic and acute conditions of drug abuse. Prereq: SHS 235 and eligible for ENGL& 101 and MATH 084.

SHS 232 (3) C
Chemical Dependency & the Family

Examines chemical dependency problems in the family, including family roles and dynamics, adult children of alcoholics, interventions and family work as focus of treatment. Prereq: SHS 235 and eligible for ENGL& 101 and MATH 084.

SHS 233 (5) C
Chemical Dependency Counseling

Overview of specialized recovery techniques, including individual, group and family approaches. Prereq: SHS 235

SHS 235 (5) C
Intro to Chemical Dependency

Surveys use and abuse of legal and illegal drugs. Analyzes patterns of dependency and addiction associated with prescription, over-the-counter and illegal substances. Explores methods of prevention, control and treatment. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 242 (5) C
Mental Health Diagnosis in Chemical Dependency & Other Human Service Settings

Intro to the DSM IV system of determining diagnosis and current theory for etiology of the primary Axis I and Axis II disorders. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 245 (3) C
Mental Health Overview

Covers the relationship between mental functioning and body physiology; behavioral and physical dysfunctions; reactions to prolonged stress; theories of pain, holistic health, nutrition, cross-cultural perspectives on healing, biofeedback, meditation, psychosomatic diseases and stress reduction. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 250 (4) C
Client & Community Advocacy

Covers the role of the advocate in a helping situation, use of community advocacy resources and effective use of the media, law, negotiation and political processes to achieve needed services for people. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 255 (5) C
Co-Occurring Disorders: Treatment Issues & Services

Explores skills and knowledge needed for working with clients with mental illness and chemical dependency. Covers symptomatology of frequently diagnosed mental disorders; criteria for substance and dependence; identifying referral needs and processes; treatment needs and barriers; and local services and case management available for the mentally ill chemically abusing (MICA) client. Prereq: SHS 235 and eligible for ENGL& 101 and MATH 084.

SHS 265 (5) C
Management & Supervision

Covers management skills for first-line supervisors in alcohol, drug, mental health, correctional, youth and other human service programs. Includes supervision, time management, motivation, leadership, discipline, personnel management, performance appraisals, communications, training and self-development. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 270 (5) C
Ethics in Human Services and Chemical Dependency

Explores ethical behavior and analysis and utilization of ethical codes that apply to human services, mental health, and chemical dependency professionals. Covers ethical reasoning processes, ethical theory, and ethical analysis. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 275 (3) C
Chemical Dependency & Domestic Violence

Specifically designed for those working with chemically addicted, abusive clients and their interactions with family members. Study of treatment goals for domestic violence to foster client understanding of anger, making anger a useful tool, and using healthy and appropriate modes of communication. Prereq: Eligible for ENGL& 101 and MATH 084.

SHS 280 (3) C
Chemical Dependency Case Management

Emphasis on oral and written communication skills. Formulate up-to-date, accurate and understandable case files and records. Learn federal and state confidentiality regulations in handling chemical dependent client records. Formulate concise treatment plans in accordance with legal requirements. Prereq: SHS 235 and eligible for ENGL& 101 and MATH 084.

SHS 296, 297, 298 (1-3EA.) C
Human Services Special Topics

Participate in approved human services professional workshops on topics such as stress management, welfare rights, aging, alcoholism, family therapy, depression, law and mental health. Credits vary.

SHS 299 (1-5) C
Independent Study Research

Individual or group research projects on human service programs and problems. May include field or library research. Prereq: Requires a learning contract.

SOCIAL SCIENCE

SSC 101 (3) N
Intro to Information Resources for the Social Sciences

Develop critical thinking as applied to the research process by examining strategies for locating, evaluating, and applying information resources in the social sciences. Explore information policy issues such as copyright, censorship, and freedom of information. Emphasis on developing proficiency using various electronic resources, including library information networks, the library catalog the web, and other research tools and retrieval techniques.

SSC 103 (5) N
Human Dimensions of Work

Covers human relations issues in the modern workplace. Includes contextual approach to understanding human relations, scientific research methods and theories of worker motivation and satisfaction. Examines work in relation to the economy, social institutions, diversity, prejudice and discrimination, interpersonal dynamics, leadership, conflict resolution, stress and ethics. Focuses on practical understanding and effective ways of dealing with issues.

SSC 130 (3-5) C,N
Death, Dying & Living

Study of the experience surrounding dying and death. Examines such situations as dealing with the death of others, your own death, the biology of death, suicide and other issues.

SSC 187 (5) C
Information, Knowledge & Power

Explores theories of mainstream and alternative cultures and their impact on information in a democratic society. Addresses concerns about the political and economic aspects of information related to the ongoing struggle for equality and human rights. Examines various research strategies for identifying, locating, evaluating and applying information resources for social justice.

SSC/CDS 197, 198, 199 (1-15) C
Work Experience – Social Sciences

Earn work experience credit in the social science field. Prereq: Permission.

SSC 220 (3) N
Global Issues

Provides professional-technical students with insight into topics of an international nature.

SSC 290 (2) C,N
Curriculum Practicum

For educators. Examines the development of teaching/learning materials based on areas covered in the study and travel program. Includes class work and field trip.

SSC 294 (2-5) C,N
Practicum in the Social Sciences

Application of theory and methodology in actual practice. Provides experiential learning in a community service agency. Create an individual contract by arrangement.

SSC 297 (5-10) C,N
Travel/Study Experience

Hands-on learning opportunity for students in domestic and/or foreign travel. Focuses on learning outside the classroom and taking advantage of cross-cultural opportunities. Includes historic sites, geographical locations, geological formations, museums, art centers, regional customs and foods, language enhancement, specialized research libraries, local universities and legislatures available only through travel.

SSC 295, 298, 299 (2-5) C,N,S
Practicum in the Social Sciences

Learn about basic research techniques, assist in planning and conducting a research project and in processing the resulting data.

SWF 200 (5) N,S
Intro to Social Welfare

Overview of the social welfare system and social work profession, including roles, fields, client populations and career options. Focuses on values, ethics, social welfare policy, social problems, social work practices, services, knowledge and skills. Includes issues of diversity, social and economic justice and global perspectives. Prereq: ENGL& 101.

SOCIOLOGY

SOC& 101 (5) C,N,S
Intro to Sociology

Covers human social interaction with emphasis on group aspects of human behavior. Includes culture, socialization, family, education, urbanization, gender roles, social class, deviance, race, sexuality, demography and social change.

SOC 102 (5) C,N
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. May be taken as ANTH& 106.

SOC 105 (5) C,S
Sociology of African Americans

Evaluation of the sociological impact of the African-American experience in relation to various social systems in America.

SOC 106 (5) C**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 107 (3-5) C**Sociology of Filipinos in America**

Examines the cultural, historical and situational forces shaping the Filipino community in America today. Studies the social and behavioral patterns of Filipino Americans within and outside of their community.

SOC 120 (3-5) C**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, including changes in this identity from one period to another.

SOC 130 (5) C**Living, Death & Dying**

Covers death and dying from a sociological perspective. Focus on relationships between death and other concepts such as socialization, stratification and culture. Examines resources and skills needed to work with the dying. Emphasizes a realistic look at death to reduce denial and increase preparation.

SOC 150 (5) C,N,S**Race & Ethnic Relations in the United States**

Examines the majority-minority pattern of interaction in American society. Includes theories of race relations and issues shaping intra- and interracial ethnic relations.

SOC 170 (5) C,N**Intro to Contemporary China**

Covers basic knowledge of the people, history, culture and socio-economic political systems of Chinese society. No prior knowledge of Chinese civilization or language is required.

SOC& 201 (5) C,N**Social Problems**

Covers processes of social and personal disorganization and reorganization in relation to poverty, crime, drug use, family dissolution, mental disorders, sexual minorities, overpopulation and other social problems.

SOC 220 (5) C**Sex Roles & 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 230 (5) C,N,S**Human Sexuality**

Survey of sexual behavior. Covers historical, physiological, psychological and social components of sexuality and its deviations. May be taken as PSYC 230.

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**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 265 (5) C**Sociology of Food**

Using sociological theories and concepts, study the social status and role of food in societies and the production, distribution and working conditions in various food industries. Examine the socio-cultural, economic and political migrations of people and ideas through foods. Consider foods in relation to global economies, governments, the dynamics of power and societal ways.

SOC 275 (5) C**Law & Society**

Covers the role of law in American society: what it is and what it should be. Survey of basic constitutional, business and personal legal concepts in theoretical and practical settings.

SOC 280 (5) C**Exploring Contemporary SE Asia**

Explores the internal diversity and complexity of SE Asia to gain a clearer sense of this region and its connection to the social, political and economic global system. Examines the diversity of perspectives existing within localities, regions and societies.

SOC 298 (1-5) C,N,S**Special Topics in Sociology**

Independent study in selected sociology topics under faculty supervision. Prereq: Permission.

SOC 299 (3-5) C,N,S**Special Problems in Sociology**

Small group seminar to discuss selected sociology topics. Prereq: Permission.

SPANISH

See Languages & Literature, page 273.

SUPERVISION & 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 work force; 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**Supervising a Diverse Workforce**

Examines perceptions held by supervisors and employees in connection with culturally and behaviorally diverse workers. Examines working with and supervising diverse population groups. 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.

FINDING COURSES

Course names and course prefixes are cross-referenced in an index beginning on page 187. For example:

PREFIX TO NAME
HIN **Watch Technology**

NAME TO PREFIX
Watch Technology HIN

Common Course Numbering explanation is on page 186.

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
Supervision & Group Behavior

Overview of group dynamics, moderation, strategies and productivity in the work place, with emphasis on diversity. Prereq: SMG 100.

SMG 150 (3) S
Training, Orientation & Employee Development

For students starting employee training in industry. Survey of basic teaching and learning processes; motivation; learning styles; occupational analysis; course organization; selecting and preparing training materials; presentation methods; and evaluation of student outcomes and learning styles.

SMG 197 (1-15) S
Internship or Cooperative Education Experience

Spend time in the field as an intern or cooperative education student under guidance of instructor and on-site mentor. Learn about operations, policies, procedures, culture and behavior standards in a business, industry, shop or other setting related to the student's course, certificate or degree program. May be taken during or after coursework. Prereq: Permission.

SMG 201 (5) S
The Manager as an Entrepreneur

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
Fund-Raising & Grant Writing

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 & 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 presentational skills and techniques for nonprofit leadership.

SMG 233 (2) S
Nonprofit Staff, Board & Volunteer Development

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
It's the Law: Contracts & Liabilities

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 & Leadership

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 Planning

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 265 (3) S
Marketing Management

Overview of marketing, promotion, advertising, sales, public relations and customer service in an organization. Compares, contrasts and defines the role of each function in business.

SMG 295 (VARIES) S
Externship in Supervision & Management

Earn college credit for supervisory work experience in the City of Seattle PREP program or others. Requires documentation and supporting data, work experience and possible examination. Credit varies. Prereq: SMG 100.

SMG 298 (1-10) S
Independent Study

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 (10) 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 co-workers, hospital organization and inter-departmental relations, physical and psychological aspects of patient care, operating room techniques and procedures. Prereq: Permission.

SURG 115 (2) C
Clinical Observation

Covers observation of the environment, routines, supplies and equipment, patient-team interaction and application of scientific principles. Prereq: Permission.

SURG 121 (6) C
Surgical Specialty/Professional 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 (12) 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 (7) 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.

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 in 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.

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 & Systems

Overview of building components, space conditioning and lighting systems, their interactions, and the building science issues surrounding and impacting them.

SBST 314 (1) 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
SBST 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 Energy Codes in Washington State

Overview of building energy codes in Washington State.

SBST 333 (4) S

Building Controls for Energy Efficiency

Overview of building components.

SBST 401 (2) S

Utility Rates, Regulations & Economics

Overview of utility rate structure.

SBST 402 (3) S

Lighting

Overview of building lighting systems.

SBST 421 (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 for Facility Managers

Overview of fiscal management for facility managers.

SBST 489 (1) S

Capstone Course

Develop a project based on previous classes and internship experiences.

SUSTAINABLE & CONVENTIONAL ENERGY & CONTROL TECHNOLOGY

EEL 201 (5) N

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

Industrial Motor Controls

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

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.

TRADES

See Pre-Apprentice Program at SVI, page 184.

See South's Georgetown Campus, Apprenticeship & Education Center programs, pages 142 and 146.

UNDERGRADUATE RESEARCH

UGR 214 (1-5) C,N

Intro to Scientific Research

Preparation for successful completion of an independent research project. Includes the application of scientific method, ethics, research methods, proposal writing and presentation techniques.

UGR 294 (1-5) C,N

Independent Research

Work collaboratively with peers and faculty. Design, complete and publicly present an original research project.

UGR 295 (5) N

Undergraduate Research in Psychology

Work collaboratively with peers and faculty to design, complete, and publicly present an original research project in Psychology. Prereq: PSYC 209.

VIETNAMESE

See Languages & Literature, page 273.

WATCH TECHNOLOGY

The Watch Technology Program is under revision. Contact the program office for the most current information.

HIN 111 (6) N

Watch Technology I – Intro

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.

HIN 112 (6) N

Watch Technology I:

Tools, Equipment/Measurement

Learn to use and maintain in a lab setting, including jeweler's saw, tweezers, screw drivers, 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

HIN 113 (10) N

Watch Technology 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 Technology 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 Technology II:

The Watchmakers' Lathes

Intro to use, care and maintenance of specialty lathes using the watchmakers' turns, the Jacot tool and pivot polishing machine.

HIN 123 (10) N**Watch Technology 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 Technology III: Winding & Setting Mechanisms**

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 Technology III: Watch Gear Trains**

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 Technology 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 Technology IV: Escapements**

Intro to the role of escapement in the watch. Explore history and development of different escapements and their influence on time-keeping. Prereqs: HIN 131, 132 and 133. Coreqs: HIN 142 and 143.

HIN 142 (4) N**Watch Technology 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 (48) N**Watch Technology IV: Practicum**

8-credit practicum. Apply knowledge from HIN 141 and 142. Prereqs: HIN 131, 132 and 133. Coreqs: HIN 141 and 142.

HIN 211 (6) N**Watch Technology V: Intro to Precision Timing**

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 hair-spring). 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 Technology V: Intro to Electronic Watches**

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 213.

HIN 213 (10) N**Watch Technology V: Practicum**

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 221 (6) N**Watch Technology VI: 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 222 (6) N**Watch Technology VI: Automatic 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 Technology 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 Technology 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 Technology 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. Coreq: HIN 231 and 233.

HIN 233 (10) N**Watch Technology VII: Practicum**

10-credit practicum. Apply knowledge from HIN 231 and 232. Practice repairing chronograph watches and continue working on precision timing. Further develop skills of identification and use of appropriate tools and equipment. Exercise appropriate safety precautions. Prereqs: HIN 221, 222 and 223. Coreqs: HIN 231 and 232.

HIN 241 (4) N**Watch Technology VIII: After Sales & Service**

Learn the range of skills necessary to manage a watch repair shop. Prereqs: HIN 231, 232 and 233. Coreqs: HIN 242 and 243.

HIN 242 (4) N**Watch Technology VIII: Review of Courses**

Review highlights of the two-year Watch Technology Program in preparation for final exams. Prereq: HIN 231, 232 and 233. Coreq: HIN 241 and 243.

HIN 243 (8) N**Watch Technology VIII: Practicum**

8-credit practicum. Apply knowledge from HIN 241 and 242. In lab, practice repairing all types of watches and review the theory of watchmaking. Prereqs: HIN 231, 232 and 233. Coreqs: HIN 241 and 242.

WEB DEVELOPMENT

See *Computing Technology, Computer Science and Information Technology*.

WELDING FABRICATION TECHNOLOGY**WFT 100 (5) S****Welding Theory**

Exploration of the applications and criteria for selecting the most widely used welding and weld-related metal joining processes, including, gas metal arc welding, flux-cored arc welding, shielded metal arc welding, gas tungsten arc welding, submerged metal arc, oxyacetylene, brazing, soldering and cutting, plasma arc cutting and resistance welding. Covers types of welds and weld joints.

WFT 105 (5) S**Print Reading & Welding Symbols**

Learn to read and interpret industrial prints for both mechanical and structural welded fabrications. Includes interpreting various views and types of prints and welding symbols and their application.

WFT 111 (5) S**Materials & Testing**

Covers theory and application of metallurgical principles applied to weld design and heat affected zone (HAZ), heat treating and distortion (pre-post), and heat effects on crystalline structure of Ferrous and non-ferrous metals. Includes methods of destructive and nondestructive testing. Prereq: WFT 100.

WFT 120 (6) S**Intro to Welding OXY Acetylene/Shielded Metal Arc Welding**

Practice safe and efficient use of oxyacetylene flame for cutting and joining applications. Perform sound welds using the Shielded Metal Arc Welding (SMAW) process.

WFT 121 (6) S**(SMAW) Shielded Metal Arc Welding**

Learn advance configurations and position for welding with the Shielded Metal Arc Welding process including vertical and overhead. Prepare for the WABO certification testing procedure.

WFT 124 (6) S**(GMAW) Gas Metal Arc Welding**

Lab practice and competencies with equipment, multiple positions and applications of GMAW uses. Combines weld theory, operation of OXY-Acetylene and SMAW processes, using mild steel, low alloy steel, aluminum, and stainless steel. Prereq: WFT 100, 120 and 121.

WFT 125 (6) S**(FCAW) Flux Core Arc Welding**

Lab practice and competencies with equipment, multiple positions and applications of FCAW uses (Inner shield/Duel Shield). Combines weld theory, operation of OXY-Acetylene, and SMAW processes, using mild steel, low alloy and stainless steel. Prereq: WFT 100, 120 and 121.

WFT 127 (6) S**(GTAW) Gas Tungsten Arc Welding**

Learn equipment, theory of operation and applications of the Gas Tungsten Arc Welding (GTAW) process, also called TIG and Heliarc, that is used in pressure piping systems, aerospace products and with heat-sensitive metals. Prereq: Experience with OAW (gas welding) and at least one arc welding process or permission.

WFT 128 (6) S**Fabrication (CAC-C) Carbon Arc Cutting (PAC) Plasma Arc Cutting**

Learn the practical transfer of blueprint information onto metal using a variety of techniques. Covers applications of geometric shape constructions and divisions in the shop environment. Demonstrate proficiencies with Carbon Arc Cutting, Plasma Arc Cutting, and manual OXY Fuel Cutting. Prereqs: WFT 100, 105, 120, 121, 124 and 125.

WFT 144 (6) S**Shipyard Intensive Welding**

Learn to adapt welding techniques to the marine industry. Apply Flux Core Arc Welding (FCAW), tack welding, joint fit-up, back-gouging and other skills in a shipyard work environment. Includes practice with welds in vertical and overhead positions for marine operations and accomplishing welds outdoors in all weather conditions and in areas not easily accessible. Prereq: WFT 125.

WFT 197 (3) S**Industry Internship**

On-the-job training with college coordination to assist in analyzing and categorizing particular experiences in welding fabrication. Develop confidence, technical and job-keeping skills. Includes significant report writing.

WFT 220 (7) S**Pipe (SMAW) Shielded Metal Arc**

Learn more advanced configurations and positions for welding with the E 7018, and E 6010 Shielded Metal Arc Welding process on pipe including vertical and overhead. Cut and bevel pipe with oxy fuel and hand tools. Prepare for the WABO pipe certification testing procedure. Prereqs: WFT 100, 120, 121, 124, 125, 127 and 128.

WFT 227 (8) S**Advanced Fabrication I**

Covers knowledge of all shop equipment and theory of operation and applications of the SMAW, GMAW, FCAW, and GTAW processes through project-oriented exercises. Design and create preapproved individual project. Prereq: All level 100 WFT courses.

WFT 228 (7) S**Pipe (SMAW/GTAW) Shielded Metal/ Gas Tungsten Arc Welding**

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 220, 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 296 (3) S**Employment Success Skills**

Identifies behaviors and characteristics that employees need on the job. Develop and gain confidence in communication and listening, teamwork and group interaction, problem-solving, decision-making and customer service.

WFT 297 (1-12) S**Special Topics**

Special topics for an individual or group in welding fabrication field. Prereq: Permission.

WINE INDUSTRY TRAINING

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 Laboratory 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**

Intermediate course in winemaking. Emphasizes theories and practices of various fermentation processes, racking, topping and preservation methods. Lab fee. Prereq: WIN 101, 102, 103, 107. Coreq: WIN 108.

WIN 105 (4) S**Elements of Wine Production III**

Advanced course in winemaking. Emphasizes the final stages of wine production including the philosophy of usage and maintenance of barrels, elements of mixing wine varieties and the final stages of finishing wine production. Lab fee. Prereq: WIN 101, 102, 103, 104, 107. Coreq: WIN 109.

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 (1-3) 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 & Microbiology**

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**

Intro to wine sensory evaluation methods including statistical analysis of trials, philosophy of wine styles and the common evaluation methods used in sensory testing. Lab fee. Prereq: WIN 101 and 121.

WIN 131 (3) S**Intro to Washington Wines**

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 & Appreciation**

A survey of wine and its role in history, religion, art, culture and society from pre-history to now. Includes sensory evaluation of representative wines. Lab fee.

WIN 133 (5) S**Intro to Wines of the 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 & 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.

WIN 151 (2) S**Intro to Food & Wine Pairing**

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 savory) and how these affect the taste of wine. Lab fee. Prereq: WIN 101.

WIN 152 (3) S**Advanced Food & Wine Pairing**

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.

WIN 153 – 157 (2-4 EA.) S**Food & Wine Pairing Series**

Intro to the philosophies and techniques involved in bringing food and wine together in a cohesive pairing. Each class focuses on a specific group of wines. Participate in team demonstrations of food and wine pairings. Lab fee.

WIN 153 (4) S**Food & Wine Pairing – Varietals I**

Focuses on Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay and Sauvignon Blanc. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.

WIN 154 (4) S**Food & Wine Pairing – Varietals II**

Focuses on Zinfandel, Rhone style Syrah, Viognier, Pinot Grigio and others. Prereq: WIN 101, 151, 152 (or concurrent enrollment) or permission.

WIN 155 (4) S**Food & Wine Pairing – Varietals III**

Focuses on Italian reds and whites, Rieslings and/or other specific varietals. Prereq: WIN 153 or 154 or permission.

WIN 156 (2) S**Food & Wine Pairing – Fortified Wines**

Focuses on Sherry, Port, Madeira, Marsala and others. Prereq: WIN 153 or 154 or permission.

WIN 157 (2) S**Food & Wine Pairing – Desserts**

Focuses on dessert wines: sweet wines, sparkling wines, red varietals and others. Prereq: WIN 153 or 154 or permission.

WIN 197 (1-5) S**Wine Industry Internship**

Links classroom experience and on-the-job experience and reinforces and documents these experiences. Prereq: 2.5 GPA in WIN 101-109, 122, 123, & 133.

WOMEN STUDIES**WMN 140 (5) C,N****Women in American History**

Focuses on the role of women in American history, with emphasis on frontier women, the industrial revolution, women's rights movements and the new feminism.

WMN 200 (5) C,N**Intro to Women Studies:****Issues of Gender, Race & Class in Contemporary Women's Lives**

Interdisciplinary, multicultural intro to Women Studies focusing on the way gender, race, class, sexuality and culture have shaped women's lives. Examines why women occupy similar and different locations in the United States and international cultures. Reading includes both narrative and analytical approaches.

WMN 205 (5) C,N,S**Women in the Global Context**

Interdisciplinary intro to the study of women in Asia, Africa, Latin America, the Middle East and/or indigenous women in some Western societies. Explores commonalities and differences among women in various societies and cultures. Focuses on women from specific societies or regions varying by instructor.

WMN 213 (5) C,N**Women & 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. Includes women's diverse roles in relation to family, economics, labor, government and law.

WMN 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 PSYC 257.

WMN 298 (1-5) N**Special Topics in Women Studies**

Independent research and writing on selected women studies topics under faculty supervision.

WOOD TECHNOLOGY**WCO 110 (18) C****Intro to Professional Woodworking**

Intro to wood construction skills and safety, including safe operation of basic hand and power tools, wood construction terminology and materials.

WCO 120 (1) C**Construction & Maritime First Aid**

11-hour course to certify students in First Aid and CPR as required by Washington State Department of Labor and Industries WAC 296-24.

WCO 130 (18 PER QTR) C**Marine Carpentry**

Covers employable skills in the boatbuilding trade. Includes instruction in fiberglass, wood construction and repair. Prereq: WCO 110. Q-1: Lofting, layout, patterns, design, basic joinery, bevels, bandsaws & safety. Q-2: Fiberglass lay-up & repair, personal & safe shop practices with Fiberglass. Q-3: Fiberglass fitting-out & repair, spray gun, machine safety & maintenance. Q-4: Wood boat construction, estimating, bidding, safety of equipment & compounds. Q-5: Wood boat construction, fitting-out, materials, interior & exterior joinery

WCO 131 (18) C**Lofting & Layout**

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 Pi scale deck, half-models and brass bevels. Participate in new boat construction and boat repair as available. Prereqs: WCO 110, 120.

WCO 132 (18) C**Intro to Composites & Marine Cabinetry**

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.

WCO 133 (18) C**Advanced Composites**

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.

WCO 134 (18) C**Basic Wooden Boatbuilding**

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.

WCO 135 (18) C**Wooden Boat Joinery & Repair**

Focuses on wood boat construction; intro to wood boat repair. Covers different types of woods used in boat construction and interior fitting out of hulls. Emphasizes the complexity of job scoping and spar building in wooden boat repair. Prereqs: WCO 110, 120, 131, 132, 133, 134.

WCO 136 (18) C**Selected Topics in 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.

WCO 137 (18) C**Special Projects in Boatbuilding & Repair**

Optional. 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.

WCO 140 (18 PER QTR) C**Carpentry**

Four quarters of work dealing with residential construction and remodeling, including technical knowledge and hands-on experience. Prereq: WCO 110. Q-1: Concrete forms & footings, floor systems & job safety. Q-2: General Framing construction, roof framing, staging, working at heights. Q-3: Finish work, setting windows & doors, machine safety. Q-4: Selected class projects.

WCO 141 (18 PER QTR) C**Residential Remodeling**

Covers specific techniques in residential remodeling including bathrooms and kitchens, stairs, scaffolding design and construction, sheetrock demolition, installation and repair and siding application.

WCO 142 (4) C**Intro to Carpentry & Blueprint Reading**

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 Selection to Layout**

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. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 144 (9) C**Foundation Systems:****Forms to Concrete Finishes**

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. Prereq: WCO 110 and proof of First Aid/CPR/AED training.

WCO 145 (9) C**Framing Systems: Floor to Ceiling**

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. Prereq: WCO 110 and 120.

WCO 146 (5) C**Roof System: Framing to Roofing Installation**

Develops skills in roof systems including framing styles, roofing techniques, flashing, ventilation, roofing materials, and installation strategies and 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 147 (4) C**Stairs System:****Rough Framing to Finished Stairwell**

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:****Building Enclosure to Finish Trim**

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:****Door Installation to Finish Trim**

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 PER QTR) C**Cabinetmaking & Fine Woodworking**

Covers cabinetmaking and millworking, including technical instruction and shop experience. Includes precision work and production of fine furnishings. Prereq: WCO 110. Q-1: Preliminary cabinetmaking skills: planning, basic layout & shop safety. Q-2: Adv. Layout, traditional & contemporary joinery, residential & commercial cabinetry. Q-3: Custom furniture design, construction, joinery, veneering, jigs, finishing. Q-4: Personal projects.

WCO 151 (18) C**Intro to 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 Architectural**

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 & Cost Estimating for the Building Trades**

Focuses on how to read and apply information gained from blueprints for cost-estimating and developing cutting lists.

WCO 164 (2) C**Roof Framing & Stair-Building**

Develop and upgrade efficiency in stair- and roof-building with new techniques and skills.

WCO 166 (3) C**Furniture Design & Construction**

Survey of furniture design trends in traditional and modern furniture.

WCO 167 (4) C**Fine Furniture**

For students with solid cabinetmaking skills who are interested in learning techniques suited to making gallery-level fine furniture.

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 & Application of the 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 Jig & Template Use**

Covers construction of specialty jigs and templates for the hand router, including exploration and explanation of multiple uses and applications.

WCO 197 (2-15) C**Work Experience – Wood Construction**

Earn work experience credit in the wood construction field. Prereq: Permission.

WCO 299 (3-18) C**Special Projects in Boatbuilding****WORLD LANGUAGES**

See Languages & Literature, page 262.