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Community colleges' new computer-science bachelor programs get funding boost from Amazon

EDUCATION LAB

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If you earn a computer-science-related bachelor's degree, odds are you won't be wanting for a job in the coming years. Employment market estimates [project a 2-3% annual growth rate](#) of occupations in computer science and information technology in Washington state between now and 2028.

Now, Seattle Colleges is working to expand the number of students who can get a degree in this hot field. North Seattle College President Chemene Crawford recently [announced a new initiative](#) "that will put a bachelor's degree in computer science within reach for many more students both in Seattle and across the state." The program, which still needs approval from the State Board for Community and Technical Colleges (SBCTC) and a regional accrediting agency for colleges, could begin as early as fall 2022.

The initiative takes advantage of [legislation passed in July](#) that authorizes the state's community and technical colleges to offer a four-year computer science degree. It also leverages public and private funding. Amazon will grant \$1 million each to three higher education entities supporting this effort: the Seattle Colleges Foundation, SBCTC and Washington State Opportunity Scholarship program.

Crawford said the new degree program will benefit "students and prospective students who, due to varying inequities, haven't had this opportunity and as a result have been left out of some of the most well-paying and prestigious jobs in our region."

The federal Bureau of Labor Statistics reported the median annual wage for computer and information technology occupations was \$91,250 in May 2020. About 278,000 students, nearly half of whom are students of color, attend Washington's 34 community and technical colleges each year, according to SBCTC.

According to statistics cited [in the state Senate bill proposal](#), of the 1,883 computer science degrees awarded in Washington during the 2018-19 school year, only 3.8% were awarded to African American students, 5.6% to Hispanic students, and less than 1% to Native Americans. The dominant degree holders in this field are white and Asian men.

Under the law, proposals can be submitted for approval in 2022 to the SBCTC, an appointed board which coordinates and directs the state's

community and technical colleges. Seattle Colleges — a community college district composed of North Seattle College, South Seattle College and Seattle Central College — is on track to submit its proposal in February.

While [more than 20 states](#) in the U.S. allow community and technical colleges to offer four-year degree programs, Washington and Florida are among the few states where such offerings are ubiquitous, said John Lederer, North Seattle College's executive dean for career and workforce education.

Seattle Colleges offers more than a dozen Bachelor of Applied Science (BAS) programs, which tend to focus on building hands-on practical skills. Students with career training and associate degree credits can more easily [transfer those credits](#) into a (BAS) program. Bachelor of Science programs, on the other hand, integrate more elements of design and theory into the curriculum. Through BAS programs, students who might not get into a more selective institution have more options for attaining a four-year degree.

The Washington Legislature has authorized community and technical colleges to offer four-year degree programs [since 2005](#), provided no neighboring public four-year colleges and universities offer the same credential.

“We had to differentiate what the community and technical colleges were doing at the baccalaureate level and what the universities were doing at the baccalaureate level. That’s how the BAS compromise came into play, because it’s worked,” Lederer said.

When the workforce has clamored for more grads in specific fields, the state has made some exceptions about which institution can offer what degree.

Seattle Colleges' computer science offering would be its first Bachelor of Science degree, but it's not the first state community or technical institution to offer a B.S. in the field. In 2016, the SBCTC and the state's college and university accrediting agency [approved Bellevue College's Bachelor of Science degree program](#) for computer science to keep pace with employers' demands for computer programmers, developers, analysts, engineers, systems security specialists and the like.

Laura McDowell, communications director for SBCTC, says the new legislation is “about filling more than employers’ needs; it’s broadening access to jobs, it’s equity.”

If the program is approved, students who have earned an associate of science transfer degree from any community college would be eligible to apply. The classes would be taught using a hybrid model, meaning that some instruction would be online and some in person. The in-person classes would take place during the weekends or evenings, at a site yet to be determined, to give working students the greatest flexibility, Lederer said.

During a news conference announcing the new computer science initiative

and grants, North Seattle computer science student [Riko Niyomwungere](#) said he didn't have the best grades while at Ingraham High School. But he had counselors and teachers who rallied to help him pursue college through the city's Seattle Promise, a program that lets Seattle high school graduates attend two years of community college for free. At North Seattle College, he said, he's found passions for robotics and automation and interests in working in databases and cybersecurity.

"One thing I know for sure is I need a four-year degree," Niyomwungere said. He's worried about getting a coveted transfer slot to the University of Washington or Seattle University.

He said the prospect of getting a Bachelor of Science degree through Seattle Colleges "makes it easier for me to hold onto my dream of working in tech and getting a really good job and, who knows, maybe getting an internship at Amazon one day."

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