

# HOUSE BILL REPORT

## SSB 5401

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**As Passed House:**

April 7, 2021

**Title:** An act relating to degrees in computer science.

**Brief Description:** Authorizing community and technical colleges to offer bachelor degrees in computer science.

**Sponsors:** Senate Committee on Higher Education & Workforce Development (originally sponsored by Senators Nguyen, Rivers, Cleveland, Das, Dhingra, Gildon, Hasegawa, Holy, Keiser, Kuderer, Lias, Lovelett, Mullet, Saldaña, Stanford, Wellman and Wilson, C.).

**Brief History:**

**Committee Activity:**

College & Workforce Development: 3/11/21, 3/17/21 [DP];

Appropriations: 3/30/21, 3/31/21 [DP].

**Floor Activity:**

Passed House: 4/7/21, 96-2.

**Brief Summary of Substitute Bill**

- Authorizes community and technical colleges to offer Bachelor of Science degrees in computer science.

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### HOUSE COMMITTEE ON COLLEGE & WORKFORCE DEVELOPMENT

**Majority Report:** Do pass. Signed by 13 members: Representatives Slatter, Chair; Entenman, Vice Chair; Leavitt, Vice Chair; Chambers, Ranking Minority Member; Jacobsen, Assistant Ranking Minority Member; Chandler, Hansen, Hoff, Kraft, Paul, Pollet, Sells and Sutherland.

**Staff:** Megan Mulvihill (786-7304).

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## HOUSE COMMITTEE ON APPROPRIATIONS

**Majority Report:** Do pass. Signed by 28 members: Representatives Ormsby, Chair; Bergquist, Vice Chair; Gregerson, Vice Chair; Macri, Vice Chair; Corry, Assistant Ranking Minority Member; MacEwen, Assistant Ranking Minority Member; Boehnke, Caldier, Chandler, Chopp, Cody, Dolan, Fitzgibbon, Frame, Hansen, Harris, Hoff, Jacobsen, Johnson, J., Lekanoff, Pollet, Ryu, Senn, Springer, Steele, Stonier, Sullivan and Tharinger.

**Minority Report:** Without recommendation. Signed by 5 members: Representatives Stokesbary, Ranking Minority Member; Chambers, Assistant Ranking Minority Member; Dye, Rude and Schmick.

**Staff:** Kate Henry (786-7349).

### **Background:**

Applied baccalaureate degrees are different from traditional baccalaureate degrees. An applied baccalaureate degree is awarded by a community or technical college and expands upon the curriculum from an associate of applied science degree, or its equivalent. An applied baccalaureate degree incorporates both theoretical and applied knowledge and skills in a specific technical field. In 2005 the State Board for Community and Technical Colleges (SBCTC) was authorized to implement a pilot program in which four colleges could develop and offer applied baccalaureate degrees. In 2010 the authorization was made permanent, and the limitation on the number of colleges offering applied baccalaureate degrees was removed. In order for an applied baccalaureate degree program to be approved by the SBCTC, the college must demonstrate that it has the resources, faculty, and student and employer demand to produce a high-quality, cost-effective, and feasible program. The college must also demonstrate that the proposed program fills a gap because there is either a workforce shortage or there is not a similar program offered by a four-year institution of higher education nearby. In the 2020-21 academic year, there were 30 colleges offering applied baccalaureate degrees. In 2016 Bellevue College was authorized to offer a Bachelor of Science (BAS) degree in computer science and is the only community or technical college authorized to offer a baccalaureate degree program.

### **Summary of Bill:**

Community and technical colleges are authorized to offer BAS degrees in computer science. A college that wishes to offer a BAS in computer science may submit an application to the SBCTC beginning December 1, 2021. The SBCTC must review applications and select colleges using criteria that includes whether the college demonstrates:

- resource capacity to build and sustain a high-quality program;
- it can readily engage faculty appropriately qualified to develop and deliver high-quality curriculum at the baccalaureate level;

- sufficient student demand within its service area to make the program cost-effective and feasible to operate;
- employer demand; and
- that the proposed program fills a need because comparable programs are not offered by a public four-year institution of higher education in the college's geographic area or due to a shortage of programs demanded by industry and workforce.

**Appropriation:** None.

**Fiscal Note:** Available.

**Effective Date:** The bill takes effect 90 days after adjournment of the session in which the bill is passed.

**Staff Summary of Public Testimony (College & Workforce Development):**

(In support) There is enormous demand for computer science degrees in the state versus other types of sciences. There are 16,000 job openings in computer science in the Puget Sound area and less than 15 percent of individuals appropriately credentialed to satisfy these job openings. For every computer science graduate in the state, about four are imported from outside the state. Not all computer science degrees are identical, and there is room for a broad range of degree types at different levels. Students of color need access, and community and technical colleges lead in racial equity. This expansion helps establish equal access throughout the state. Many individuals are not able to relocate to attend college, and 72-90 percent of students look for education and career opportunities within 50 miles of their high school. There are around 600 students who want to transfer into computer science programs, but space is limited as demand is higher than capacity.

The community and technical college sector has been offering applied baccalaureate degrees with success, and the number of applied baccalaureate degrees has grown. There is a rigorous review process by the SBCTC before approving applied baccalaureate degrees that includes strategic review with staff, consultation with nearby public four-year institutions, peer review feedback, and final approval by the SBCTC. After the SBCTC approves a program, the college can then seek program accreditation. Tuition is higher for the applied baccalaureate degrees, but it is on-par with the regional universities. In the 2019-20 academic year, there were 4,455 full-time students enrolled in applied baccalaureate programs. The SBCTC seeks to maximum student potential and transform lives within a culture of belonging that advances racial, social, and economic justice. The community and technical college sector is prepared to deliver bachelor's degrees in computer science.

Bellevue College began accepting students into the BAS program in winter quarter of 2016. The program produces high quality and well prepared job applicants. The program size has tripled to a yearly cohort of 75 students and continues to grow, even through

COVID-19. The community and technical colleges offer opportunities for hands-on work with regional technology companies that often hire program graduates. Issues which need to be addressed include ensuring competitive salaries for faculty teaching classes at the baccalaureate level, and the reputation of degrees attained at a community or technical college.

(Opposed) None.

**Staff Summary of Public Testimony (Appropriations):**

(In support) The University of Washington Paul G. Allen School of Computer Science and Engineering received students indicating their first choice of program at more than three times the capacity of the program. Computer science is a field with all sorts of jobs, for all sorts of people, with all sorts of preparation. Traditional two-year colleges can offer a computer science degree, and Bellevue has shown it can be done. The bill increases access to computer science programs for students of color. The increase in computer science degrees can lead to more students with living wage jobs in the state. Many students are place bound and do not have the ability to move to attend a computer science program, and would take the opportunity to attend a program in their own community.

(Opposed) None.

(Other) An amendment is requested to include private institutions which would recognize that private institutions of higher education can assist in growing computer science programs. All 10 institutions included within the Independent Colleges of Washington offer computer science degrees would like to partner with industry and other institutions to educate more students at the bachelor's level in computer science.

**Persons Testifying (College & Workforce Development):** Senator Nguyen, prime sponsor; Ed Lazowska, University of Washington – Paul G. Allen School of Computer Science & Engineering; Sheila Edwards Lange, Seattle Central College; Rob Viens, Bellevue College; Arlen Harris, State Board for Community and Technical Colleges; Charles Knutson, Amazon; Bish Paul, Washington STEM; Albert Sardinas, Washington Build Back Black Alliance; and Briahna Murray, City of Bellevue.

**Persons Testifying (Appropriations):** (In support) Ed Lazowska, University of Washington Paul G. Allen School of Computer Science and Engineering; and Sheila Edwards Lange, Seattle Central College.

(Other) Terri Standish-Kuon, Independent Colleges of Washington.

**Persons Signed In To Testify But Not Testifying (College & Workforce Development):**  
None.

**Persons Signed In To Testify But Not Testifying (Appropriations):** None.