



**Date:** February 14, 2024

**To:** Senate

**From:** Senate Committee on Planning

**Re:** **Proposal to establish a Computer Gateway Program in the Faculty of Engineering and Computer Science**

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At its meeting on February 14, 2024, the Senate Committee on Planning considered the proposal to establish a Computer Gateway Program in the Department of Computer Science for deliver at the West Shore Campus.

The West Shore Computing Gateway is an entry program that provides up to the first two years of coursework for students in one of the computing-centric degrees: Computer Science, Data Science or Software Engineering.

The University of Victoria's Faculty of Engineering and Computer Science has been funded to address the growing demand in the technology sector with anticipated growth of over 75,000 job openings in computer systems and related services by 2032.

The Gateway program will be run in small, cohort-like classes with a dedicated instructional team and will incorporate collaborative, success-oriented strategies into learning materials. Students will be able to choose between full-time and part-time course loads, allowing the flexibility to balance their academics with other life activities.

This is the first time that entry into these three similar discipline programs is being offered together, giving students a unique opportunity to experience courses that lead to any of the three fields, and deferring for up to two years the need to make their specific discipline choice. Software specific design courses will be available to all students in the gateway.

**Recommended Motion:**

That Senate approve, and recommend to the Board of Governors that it also approve, the Computing Gateway program for delivery at the West Shore Campus as described in the document "West Shore Computing Gateway" and that this approval be withdrawn should the program not be offered within five years of the granting of approval.

Respectfully submitted,

**2023-2024 Senate Committee on Planning**

Dr. Elizabeth Adjin-Tettey, Associate Vice-President Academic Programs

Dr. Eva Baboula, Associate Dean, Fine Arts / Graduate Studies

Dr. Alexandrine Boudreault-Fournier, Graduate Advisor, Anthropology

Dr. Alexandre Brolo, Chair, Chemistry

Dr. Jane Butterfield, President's Nominee, Mathematics and Statistics

Dr. Adam Con, Music

Ms. Andrea Giles, Executive Director, Co-Op & Career Services

Dr. Robin Hicks, Dean, Graduate Studies  
Dr. Sandra Hundza, Director, Exercise Science, Physical and Health Education  
Mr. Cole Kennedy, Student Senator  
Dr. Annalee Lepp, Dean, Humanities  
Dr. Geoff Loomer, Associate Dean, Administration and Research, Law  
Dr. Cynthia Milton, VPRI's Designate, Vice President Research and Innovation  
Dr. Tania Muir, Director, Languages, Arts and Cultures, Continuing Studies  
Dr. Pablo Restrepo Gaultier, Grad Advisor, Hispanic and Italian Studies, Humanities  
Dr. Maureen Ryan, Associate Dean, Academic, Human and Social Development  
Dr. Kristin Semmens, VPAC's Designate, Germanic and Slavic Studies  
Dr. Henning Struchtrup, Mechanical Engineering  
Ms. Wendy Taylor, Acting Registrar  
Khushi Wadhwa, UVSS Representative  
Dr. Jie Zhang, Peter B. Gustvason School of Business  
Ms. Christine McLaughlin, Acting Secretary

UNIVERSITY OF VICTORIA  
STANDARD TEMPLATE FOR NEW PROGRAM PROPOSAL – UNDERGRADUATE

*West Shore Computing Gateway*

Indicate the type of change being proposed:

- Double or dual degree programs involving existing degrees
- Programs involving partnerships or agreements with other institutions
- Changes to a program degree or title
- Significant changes to program focus, content, structure, new stream within existing program or requirements
- Other, please specify: A new Computing Gateway for the initial portion of existing programs, Computer Science, Data Science and Software Engineering, to be offered at West Shore campus

Submitted by:	Name and title	Email
Contact person	LillAnne Jackson	engradu@uvic.ca
Dean or designate	Mina Hoorfar	engrdean@uvic.ca

**Please provide dates of all approvals**

Required approvals	Date
Pre-consultation with AVPAP (by contact person and Dean/designate)	November 26, 2023, December 14, 2023, January 3, 2024
Departmental/School approval	January 15, 2024
Faculty Curriculum Committee approval	January 29, 2024
*Faculty Council approval (or <u>indicate</u> equivalent Faculty voting body)	February 9, 2024

**Please complete all rows with date or N/A**

Consultations (as applicable; see notes below) <i>*supporting documentation required for all consultations</i>	Date (or N/A)	Supporting Documentation Attached (Y/N)
Libraries - ulo@uvic.ca	January 19, 2024	Yes
Co-operative Education and Career Services – coopinfo@uvic.ca	January 19, 2024	Yes
Office of the Registrar – please submit consult request to <a href="mailto:OREGSCPConsultation@uvic.ca">OREGSCPConsultation@uvic.ca</a>	January 18, 2024	Yes
Indigenous Academic and Community Engagement – Kundoqk Jacquie Green, Executive Director, <a href="mailto:iaced@uvic.ca">iaced@uvic.ca</a>	Ongoing (sent for review Feb 1, 2024)	
Non-standard Tuition	Yes* or N/A	Non-standard form attached (Y/N)
Proposed program change involves non-standard tuition *If you answered Yes, complete the <a href="#">UVic Non-standard Tuition Template</a>		



## UVic West Shore Computing Gateway

### SUMMARY of NEW PROGRAM

Name, Location, Academic units (Faculties, departments, or schools)	UVic West Shore Computing Gateway, UVic West Shore Campus Faculty of Engineering and Computer Science (ECS)
Anticipated start date of proposed program <b>*Note – the program <i>must not be advertised/offered until all approvals are finalized.</i></b>	September 2025
Name, title, phone number and e-mail address of contact person	LillAnne Jackson, Associate Dean Undergraduate Programs, Faculty of Engineering and Computer Science, <a href="mailto:engradu@uvic.ca">engradu@uvic.ca</a> , 250 721 8941

**A. Provide a summary of the proposed program and clearly articulate how the program aligns with current institutional plans and priorities. (maximum 1 page)**

Vision: Provide a learner-centered gateway into the computing-centric degrees at UVic.

Improve access to post-secondary education in alignment with UVic and BC government priorities.

Prepare students for computing-centric programs in response to labour market demands.

Goals:

1. To provide a course work pathway for students to complete 1.5 to 2 years of BSc degrees in Computer Science (CSc) or Data Science (DSc) or the BSEng degree in Software Engineering (SEng).
2. To provide alternate pathways to the computing-centric programs to allow for a broader range of backgrounds of students entering these programs.
3. To weave pedagogical approaches for developing strategic learning competencies, and learning communities across courses.





The West Shore Computing Gateway is an entry program that provides up to two years of coursework for students in one of the computing-centric degrees: Computer Science, Data Science or Software Engineering. The gateway will be run in small, cohort-like classes with a dedicated instructional team who will collaborate to incorporate success-oriented strategies into learning materials spanning across courses. Students will transfer to the Gordon Head campus for completion of their degrees. All courses in the Gateway will be the same courses as those in the related degrees on the Gordon Head campus. Applications used in the courses will be focused on the computing nature of the Gateway's degrees.

This is the first time that entry into these three similar discipline programs is being harmonized to provide students with a unique exposure to courses in each of the three fields, before requiring them to select a specific discipline. Students will be able to choose between full time and part time course loads, allowing the flexibility to balance their academics with other life activities. This program does not change the graduation requirements for any of the three participating degrees, rather re-schedules courses and incorporates learning strategy reflection throughout. The courses will be the same as those offered on the Gordon Head campus but will be application-centered on software, data and the underlying computing that is common among these degrees. This will be an exceptional learning environment for those who choose to begin their University of Victoria computing career in a smaller, learner-focused environment emphasizing computing applications and competencies across all courses.

This proposal addresses UVIC's Strategic Plan, *Distinctly UVIC, 2023 Forward*, in a number of ways:

- Access to education will be provided with a team based instructional approach designed to improve the transition from high school to post-secondary. The unique approach to curriculum in this program will support the transition by: (a) offering a credit bearing learning course(s) with assignments and activities connecting to concurrent and subsequent computing and data courses, (b) engaging course instructors in a community of practice promoting coordination and just in time learning support across courses each semester, (c) leveraging contemporary learning science to design instruction and assessments that promote skills and competencies necessary for successfully integrating into upper year coursework.
- Together the smaller classes (up to 50 students) in the Gateway, the Success in Learning unit in the first term course (ECS 105) and the embedding of learning theory in every course ensures that we are pursuing excellence in teaching. ECS 105, that is under development as the program's elective course in the first term, focuses on the place, the West Shore computing community, and success in university learning and computing, software and data careers. Throughout the program, instructors and advising supports will provide pro-active interaction with the students, regularly providing learning materials on co-curricular topics such as: Community Building, Identifying Academic Challenges, Relationship Building, Time Management, Developing Study Skills, Setting Realistic Goals, Building a Supportive Network, Managing Stress and Burnout and Maintaining a Healthy Lifestyle.
- Albeit a smaller program than the comparable programs on the Gordon Head campus, the West Shore Gateway will be one of the larger programs on a small campus in the heart of the growing downtown West Shore community. The West Shore community will be present on the campus, for example, through the Campus Innovation Centre, the co-location of School District 62 and the hosting of community events on the campus. The program and students will also be present in the community as they move from the campus and engage with the downtown business centre, including through possible co-op opportunities in the area and applied assignments and projects during coursework. This will open opportunities for the students, the program and the University to cultivate partnerships with the West Shore community. The opportunities for the students, being 1<sup>st</sup> and 2<sup>nd</sup> year level, will be especially valuable as upper year and graduate students will not be present on the campus, thereby creating an intimate relationship between the relatively small number of students and the broader West Shore community. Students and the community will be in direct contact.



The design of the learner centred coursework, together with the presence in a small city's centre, truly contributes to Sustainable Development Goal #11 and 4, where cities and human settlements become more inclusive, safe, resilient and sustainable and the institutions can offer inclusive and equitable quality education that promotes lifelong learning.

The design of this program addresses two important factors with a goal of increasing diversity in admissions for the program and promoting success of students we admit.

First, many talented students enter university with limited formal preparation in foundational courses necessary for choosing computing-related degrees and programs. This program intentionally provides a gateway to computing-centric degrees by developing foundational computing knowledge and skills early in the first two years. This creates opportunities for students with more diverse backgrounds to learn about, succeed in, and consider computing tracks.

Second, the transition to university introduces new challenges even for high performing high school students. This program explicitly invests in developing metacognitive learning knowledge, beliefs, skills and competencies needed to thrive in their programs and careers.

The Computing Gateway program design is grounded in research documenting factors contributing to student success, particularly in Computer Science, Data Science and Software Engineering. Specifically, we will provide course-based experiences to level the playing field for students who enter with limited prior experience.

Research in Studies on University Success and success in programs containing significant Computer Science or Mathematics curriculum, as do the programs within the Computing Gateway, indicate that prior course-based experience is the strongest predictor of student success (Merchán-Clavellino, A. et al., 2019; van der Zanden et al., 2018). Ribeiro et al. (2019) observe, however, that the protective potential of strong prior academic knowledge declines at the end of the first semester. Thus, restricting program admission to only those applicants with specific prior learning would reduce the admission pool and the diversity of that pool to those who have had the opportunity to access those courses, while it would only improve success for a short portion of the overall degree.

The Association for Computing Machinery's (ACM) Education Board and Advisory Committee (<https://www.acm.org/education>) regularly publishes papers on computing education, such as computing curriculum recommendations, preparation for computing through schools, Equity Diversity and Inclusion in computing careers, post secondary student retention, among other topics. Their paper on *Retention in Computer Science Undergraduate Programs in the U.S.: Data Challenges and Promising Interventions* has relevance in the Canadian system and makes the following recommendations (among others):

- Institutions should provide funding and educators should adopt pedagogical strategies to ensure that all students perceive classrooms and labs as welcoming environments.
- Institutions should provide programs, services, and pathways that enable students entering the institution with varying computational backgrounds to succeed in their intended major (especially with regard to computing and mathematics).
- Educators should adopt pedagogical strategies that incorporate collaboration and team-based learning.
- Educators and administrators need to be aware of barriers to entry as leaks in the retention pipeline are identified.

The West Shore Computing Gateway will be focused on developing these successes.

**B. What are the current labour market indicators to support the proposed program?**

BC's most recent Labour Market Outlook (BC LMO) indicates that Employment in B.C. is expected to grow by 1.3 per cent a year for the period from 2022 to 2032, with key growth areas in health care, followed by technology sectors. The outlook indicates that the technology sector will drive economic growth, with over half of the 148,000 job openings in computer systems design and related services. The BC Ministry of Post-Secondary Education and Future Skills is responding to this in their Stronger BC for Everyone: Future Ready Action Plan (BC FRAP) by announcing 3000 more seats to the province's technical learning programs in May 2023, in addition to the 2900 that were added over the previous six years. The University of Victoria's Faculty of Engineering and Computer Science has been funded to contribute 600 of these seats.

**C. How is the proposed program aligned with, or is distinct from other related undergraduate programs in other BC post-secondary institutions?**

This is a unique program that provides an alternate pathway into the degrees, Computer Science, Data Science and Software Engineering. This gateway is suitable for students beginning their programs in:

- Computer Science
  - o Major
  - o Honours
- Data Science
  - o Major
  - o Honours
- Software Engineering
  - o Major

There is no comparable program in BC. There is, however, a similar model defined in the Engineering disciplines that provides common foundational (1<sup>st</sup> year) curriculum, allowing students to defer their specific program decision to 2<sup>nd</sup> year. Software Engineering also participates in this program. At institutions throughout the province, both those that offer full engineering degrees and those that do not, the Common Core 1<sup>st</sup> year Engineering curriculum (BCCAT ENG) is offered. The agreed curriculum was developed in collaboration with the British Columbia Council on Admissions and Transfer (BCCAT) via their Engineering Transfer committee. Students throughout the province who have completed the Common Core 1<sup>st</sup> year can seek admission into the 2<sup>nd</sup> year of any of the province's Engineering programs. It is the intention of the Faculty of Engineering and Computer Science to build upon the commonalities of the Gateway program's degrees to encourage a similar common curriculum as a clear pathway to transfer admission in 2<sup>nd</sup> year of UVic's Computer Science, Data Science and Software Engineering degree's and, hopefully, to other similar degree programs in BC.

One of the partner institutions on the West Shore campus, Camosun College, is planning to locate their Information and Computer Systems Technology (IST) Diploma on the campus. This two-year diploma program complements the Computing Gateway programs and is a program that offers alternate admission criteria with a diploma exit and some transferability into the UVic programs. The two institutions have begun collaborating to create a bridge-level transfer program with the goal of creating an admission pathway into 3<sup>rd</sup> year of the UVic degree programs.

Observe that the large expansion of 600 new seats need contribution of all three of these new sources of admission: The West Shore Computing Gateway, new transfers into 2<sup>nd</sup> year (supported by a common 1<sup>st</sup> year computing curriculum), and transfers into 3<sup>rd</sup> year (supported by a Camosun-UVic Computing bridge program.)



***D. Please indicate areas of specialization and evidence of adequate faculty complement to support the proposed program.***

As the gateway will be a teaching program, it will be staffed by a team of by regular teaching faculty members with demonstrated interest in learning in the related disciplines, and membership in the following Faculties: Engineering and Computer Science (Computer Science/Software Engineering); Science (Mathematics and Statistics); and Humanities (Academic and Technical Writing). The instructors from Engineering and Computer Science will teach courses in Computer Science, Software Engineering and the design portion of Engineering Design. While instructors from Science will teach Mathematics and Statistics courses and instructors from Humanities will teach the Communications sections of the Engineering design courses.

The Computing Gateway represents new programming at the University and, as such, the participating units will require new faculty to teach in the program. Each of the departments will participate together to recruit, hire and support the development of this program using funding provided by the BC government for the tech seats expansion. The initial members from the Faculty of Engineering and Computer Science that will be hired for the gateway must be licensed as engineers (PEng or PEng), consistent with the accreditation needs of the Software Engineering program as it is accredited by Engineers' Canada (ENG CAN). Existing faculty in the departments at Gordon Head will be able to elect to participate full or part time in the Computing Gateway's programming. If this happens, the departments will hire replacement personnel.

These Faculty members' teaching workloads or a suitable portion of the workloads will be designated for the West Shore campus. Part of their workload comprises developing and sustaining a community of practice amongst instructors so as to leverage opportunities for integrating and sustaining student-centred learning principles, practices and applications across courses in the curriculum.

***E. What are the admission requirements for the proposed program?***

The West Shore Gateway program serves as a general starting point for undeclared students who are indicating, by joining this program, that they will complete one of the three participating degrees: Computer Science, Data Science or Software Engineering. The proposed admission requirements for the program are a fusion of the separate admission requirements for the three degrees.

The proposed BC High School admission requirements for the West Shore Computing gateway are:





Grade 11	Grade 12
approved English 11 Pre-calculus 11 Two approved Science 11 courses (Chemistry 11 and Physics 11 recommended) approved social studies 11/12	English Studies 12 or English First Peoples 12 with at least 67% Pre-calculus 12 with at least 73% one approved science 12 course one approved academic 12 course

By way of comparison, the BC High School admission requirements for the participating degrees are:

BSC in Faculty of Engineering and Computer Science:

approved English 11 Pre-calculus 11 approved science 11 approved social studies 11/12	English Studies 12 or English First Peoples 12 with at least 67% Pre-calculus 12 with at least 73% one approved science 12 course one approved academic 12 course
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BSC in Faculty of Science:

approved English 11 Pre-calculus 11 Chemistry 11 Physics 11 approved social studies 11/12	English Studies 12 or English First Peoples 12 with at least 67% Pre-calculus 12 with at least 67% two approved science 12 courses
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BSENG in Faculty of Engineering and Computer Science:

approved English 11 Pre-calculus 11 Chemistry 11 Physics 11 approved social studies 11/12	English Studies 12 or English First Peoples 12 with at least 67% Pre-calculus 12 with at least 73% Approved Science 12 course or Calculus 12 one approved academic 12 course
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*Thus, all Gateway students in the program will be able to access the Computer Science and Data Science degrees through the Faculty of Engineering and Computer Science's BSC degrees. Access to Data Science through the Faculty of Science will either require the recommended Physics 11 and Chemistry 11 and two science 12 courses or that students successfully complete 9 units of science courses including Math 100 or 109 and Math 101 before transfer. Access to Software Engineering in the Faculty of Engineering and Computer Science will require the recommended Physics 11 and Chemistry 11.*

*Program based advising will include early consultations with students to determine their target degree programs and assessment for transfer admission criteria. For those missing courses, such as specific science requirements, suitable courses via the local School District, SD-62, which will also be present on the West Shore Campus, will be recommended.*

**F. Curriculum design (Include draft curriculum, if applicable, as Appendix).**

See Appendix.

- **Does the proposal involve changes to the curriculum design? If yes, clearly identify the existing curriculum and proposed changes.**

(See Appendix for Draft Curriculum.) The core required courses in the three degrees remain the

same as those on the Gordon Head campus. Academic course sequencing has been re-organized and collaborative, community building and success-oriented strategies will be incorporated into course materials and learning outcomes. The courses will focus on software-centric applications.

For example, *ENGR 110 Design and Communications I* and *ENGR 120 Design and Communications II* courses, which contain the curriculum of *ATWP 135 Academic Reading and Writing* and *ENGR 240 Technical Communication* (respectively) as strict subsets will be offered to all students in the program. ENGR 110 and 120 are required in the Software Engineering program whereas ATWP 135 and ENGR 240 are required or elective in Computer Science and Data Science. The sections of these courses in the West Shore Gateway program will choose software design applications as course activities.

- **Does the new program include opportunities for experiential learning or other forms of community engagement or research-enriched learning?**

Co-op work terms are a required part of the Software Engineering curricula and elective in Computer Science and Data Science curricula. A Co-op preparation course will be offered in the spring term of 1<sup>st</sup> year. It is suggested that all students take this course, regardless of if/when they are planning on participating in the Co-op program. Students will be able to begin Co-op terms as early as the summer following the 1<sup>st</sup> year. Software Engineering students typically complete at least 1 co-op before they begin the 2<sup>nd</sup> term of the 2<sup>nd</sup> year.

The Engineering Design courses, which will include software design applications, will include industry engagement in the form of guest speakers and local tours. The second course (ENGR 120), which includes implementation of design will benefit from access to the Innovation Centre at the West Shore campus, as well as the staff and clients of the studio.

- **Does the program design include plans for distance education delivery? If yes, provide details.**

The proposed program will be delivered primarily in person at the West Shore campus. Some courses will be offered in a hybrid model, sharing delivery between the West Shore and Gordon Head campuses.

**G. Describe the learning outcomes of the proposed program.**

While the learning outcomes for the three participating degree programs remain unchanged, we are anticipating a different and unique experience for these first two years in the program. The students in the West Shore Computing Gateway programs will:

- Develop fundamental programming concepts and algorithm design skills, including approaches to organizing data and selecting relevant computational techniques,
- Apply Mathematical and Statistical tools used in software design and data management,
- Communicate effectively with other members of the professions related to Software Engineering, Computer Science and Data Science and describe their academic work to non-technical members of the community,
- Identify and Deploy evidence-based learning strategies customized to optimize successful learning and performance in in computing centric courses,
- Evaluate the effectiveness of a problem's solution, including program correctness, code verification and testing,
- Reason about the efficiency of algorithms.



**H. Does the proposed program provide opportunities to include Indigenous perspectives and decolonization of the curriculum/program? If yes, please provide details.**

The West Shore Gateway programming is being developed using components of the 5R's of Indigenous Pedagogy Research ( <https://pressbooks.bccampus.ca/the5rsonline/chapter/the-5rs/> ):

- Relationships: Relationships are reciprocal between teacher and student, and should foster connection to community and self.
- Respect: The need to recognize and respect Indigenous peoples cultural norms and values.
- Relevance: Learning should reflect the needs and ways of knowing of local communities.
- Responsibility: Instructor and learner have a responsibility to uphold culture, as well as personal/social aspects of being.
- Reciprocity: Honouring student voice and choice, creating equitable relationships instead of instructor-centred knowledge transmission.

As development progresses, input will be sought from the Faculty of Engineering & Computer Science's Office of the Assistant Dean Community and Culture and from the University's Indigenous Academic & Community Engagement (IACE) Team.

**I. Does the proposed program design provide opportunities for global engagement or perspectives? If yes, please provide details.**

Not specifically, though the community development in the program will include the perspectives of all the program's participants, a number of whom have perspectives beyond the greater Victoria area.

**J. Does the proposed program promote justice, equity, diversity and inclusion? If yes, please provide details.**

The program is intended to promote access to post-secondary education and provide opportunities for individuals from marginalized communities to access not only educational opportunities but also high demand occupations which promote better and equitable socio-economic outcomes. The program will incorporate community building and learning success in these technical fields. Throughout the program, teaching and advising will focus student co-curricular development towards community building and creating a sense of equity between the participants in the program. The goal will be to set a foundation that integrates justice, equity and diversity into these technical programs aimed at making them safe learning environments.

**K. Does the proposed program involve places for integration of teaching and research? If yes, please provide details.**

The Gateway is being designed to encourage testing and designing new approaches to learning and teaching in these fields and, where appropriate, to publish these approaches.

Students will be exposed and contribute to this scholarship of teaching and learning through the design of their courses. Instructors, who will normally be teaching professors, will be leveraging the science of contemporary learning and their own scholarship into instructional

materials and assessments.

Technical research will be infused into the Gateway's course offerings using guest lectures from research professors in Computer Science, Data Science and Software Engineering on the Gordon Head Campus.

***L. Describe the enrolment plan for the length of the degree and student financial support plan.***

The West Shore Gateway will admit up to 50 new learners every fall, beginning in September 2025. The program is expected to reach a steady state of 100 students in the 2026/27 academic year.

The student financial support plan will be the same as is provided for UVIC's Gordon Head campus programming.

***M. Resource requirements (include a table of program revenue and expenditures).***

**Indicate resources required for new faculty and staff appointments, space and library.**

Resources will be required to provide student services including but not limited to Academic Advising, Libraries, Computer Helpdesk, Student Awards and Financial Aid, Centre for Accessible Learning, Office of Student Life, International Centre for Students, etc. We are still working out the details for the delivery model to provide these services to our West Shore students.

***N. Provide evidence of consultation with related programs and UVic departments/faculties participating in or affected by the new program (emails/letters of support in an appendix)***

The West Shore Computing Gateway program is a collaboration between the Department of Computer Science, the Software Engineering Program and the Department of Mathematics and Statistics. Unit leaders discussed the program at a retreat on July 20, 2023 (retreat minutes attached)

***O. Provide external letters of support from other BC post-secondary institutions and/or community partners.***



Curriculum Appendix (draft):

Required (R) or Elective (E) in:

				Units	CSC	DSC	SENG
<b>1st Year Fall:</b>							
	CSC 110	Programming I	1.5	R	R	R	
	ENGR 110	Design & Communications I	2.5	R (part)	E	R	
	Math 100 or 109	Calculus I	1.5	R	R	R	
	Math 110	Linear Algebra	1.5	R	R	R	
	ECS 105 (under development)	Community Building and Success in Learning	1.5	E	E	E	

				Units	CSC	DSC	SENG
<b>1st Year Spring:</b>							
	CSC 115	Programming II	1.5	R	R	R	
	ENGR 120	Design & Communications II	2.5	R (part)	E	R	
	Math 101	Calculus II	1.5	R	R	R	
	Math 122	Logic & Foundations	1.5	R	R	R	
Choose 1 or 2 of:							
	ENGR 130	Intro to Professional Practice	1.5	E	E	R	
	STAT 123	Data Science	1.5	E	R	E	
	Elective		0.5	E	E	E	

Consultation: Each spring, the Faculty will consult with 1st year Gateway students regarding their 2nd year plans. Plans for a suitable combination of the following courses will be made. Subject to student numbers, these plans will include a combination of in-person or hybrid delivery courses.

				Units	CSC	DSC	SENG
<b>2nd Year Fall:</b>							
	SENG 265	Software Development Methods	1.5	R	R	R	
	CSC 230	Introduction to Computer Architecture	1.5	R	R	R	
	CSC 225	Algorithms and Data Structures I	1.5	R	R	R	
	STAT 260	Introduction to Probability and Statistics I	1.5	R	R	R	
	Math 202	Intermediate Calculus	1.5	R			
	Math 200	Calculus III	1.5	R	R		
	Elective(s)		1.5	E	E	E	

<b>2nd Year Spring:</b>							
	SENG 275	Software Testing	1.5	E	E	R	
	CSC 226	Algorithms and Data Structures II	1.5	R	R	R	
	Math 204	Calculus IV	1.5	E	E	R	
	Elective(s)		1.5	E	E	R	

References:

BC LMO: British Columbia LABOUR MARKET OUTLOOK, 2022-2032 Forecast, <https://strongerbc.gov.bc.ca/jobs-and-training>

BC FRAP: Stronger BC for Everyone: Future Ready Action Plan, <https://news.gov.bc.ca/files/Future-Ready-May2023.pdf>

5R's of Indigenous Pedagogy Research ( <https://pressbooks.bccampus.ca/the5rsonline/chapter/the-5rs/> )

van Rooij, Els C.M., Jansen, Ellen P.W.A., van de Grift, Wim J.C.M, (2017), *First-year university students' academic success: the importance of academic adjustment*, European Journal Psychological Education, 33: 749-767

van der Zanden, Petrie J.A.C, Denessen, Eddie, Cillessen, Antonius H.N., Meijer, Paulien C. (2018), *Domains and predictors of first-year student success: A systematic review*, Educational Research Review, 23: 57-77

Ribeiro, Luisa, Rosario, Pedro, Nunez, Jose Carlos, Baeta, Martha, Fuentes, Sonia, *First-Year Students Background and Academic Achievement: The Mediating Role of Student Engagement*, (2019), Frontiers in Psychology, [www.frontiersin.org](http://www.frontiersin.org), 10: Article 2669

van der Meer, J., Scott, S., and Pratt, K. (2018). *First semester academic performance: the importance of early indicators of non-engagement*. Student Success 9, 1–12

Merchán-Clavellino, A., Martínez, C., Salguero, M. P., Paino, S., and Alameda, J. R., (2019). *Quality indicators in higher education: analysis of psychosocial factors of students*, Journal Psychol. Educ. 14, 27–37.

BCCAT ENG: *First-Year Common Engineering Curriculum for the BC PostSecondary Sector* (2018), The British Columbia Council on Admissions and Transfer, <https://www.bccat.ca/pubs/Reports/EngCommonCore2018.pdf>

ENG CAN: Engineers Canada, Accreditation: <https://engineerscanada.ca/>

Friday, January 19, 2024 at 13:46:19 Pacific Standard Time

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**Subject:** RE: Consultation for West Shore Computing Gateway  
**Date:** Friday, January 19, 2024 at 9:14:25 AM Pacific Standard Time  
**From:** Andrea Giles  
**To:** Associate Dean Undergraduate Programs, Engineering and Computer Science  
**CC:** Meeta Khurana  
**Attachments:** image001.jpg

Hello LillAnne,

Thank you for the opportunity to provide input on this proposal. I see that my feedback from an earlier round of consultation has been incorporated into this planning document. I appreciate that we have been able to engage in an in-depth consultation process with you – from planning meetings to draft iteration.

As noted in the document, COOP is an essential component of an Engineering degree and an optional component of a CSC degree, and as such, as been considered throughout this planning process.

Please consider this email as my letter of confirmation of consultation and of support for this new program proposal.

Regards,

Andrea



Andrea Giles, M.A.  
Executive Director  
Co-operative Education Program and Career Services

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Web: [uvic.ca/coopandcareer](http://uvic.ca/coopandcareer) | Portal: [learninginmotion.uvic.ca](http://learninginmotion.uvic.ca)

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**From:** Associate Dean Undergraduate Programs, Engineering and Computer Science <[engradu@uvic.ca](mailto:engradu@uvic.ca)>  
**Sent:** Monday, January 15, 2024 4:25 PM  
**To:** coopinfo <[coopinfo@uvic.ca](mailto:coopinfo@uvic.ca)>  
**Cc:** Andrea Giles <[agiles@uvic.ca](mailto:agiles@uvic.ca)>; Meeta Khurana <[meetak@uvic.ca](mailto:meetak@uvic.ca)>  
**Subject:** Consultation for West Shore Computing Gateway

Co-op and Team,

Attached please find my last or nearly last version of the West Shore Computing Gateway program

proposal. I have incorporate the input of Andrea plus a number of other stakeholders into this update. Could you and your Co-op Team please consult on this proposed program and provide feedback that could be used as supporting documentation for this program proposal?

Thank you,  
LillAnne Jackson

--

LillAnne Jackson, PhD, P.L.Eng.,  
Associate Dean Undergraduate Programs  
Faculty of Engineering and Computer Science  
University of Victoria

Pronouns: she/her

[Engineering and Computer Science](#) | [UVic](#)

We acknowledge and respect the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.



Lisa Goddard  
Associate University Librarian  
Advanced Research Services  
University of Victoria Libraries

Jan 19, 2024

LillAnne Jackson  
Associate Dean Undergraduate Programs  
Faculty of Engineering and Computer Science  
University of Victoria

Dear LillAnne,

Thank you for sharing the West Shore Computing Gateway program proposal. This is an excellent match for UVic's new campus given high student demand in these areas, and considering the BC government's stated objective to expand technical learning opportunities in the province.

I have consulted with our Engineering and Computer Science Librarian, Aditi Gupta, and UVic Libraries do not anticipate any significant obstacles to our ability to support this new program. As University of Victoria students, those registered in this program will have full access to all UVic library collections, including online access to licensed resources. These include key resources in the field like IEEE Xplore, ACM Digital Library, and the Web of Science Core Collection. UVic Libraries have subscriptions to many relevant e-book packages including ASM Handbooks online, O'Reilly Learning (formerly known as Safari Books online), Synthesis: Digital Library of Engineering and Computer Science, and many other academic packages with relevant content. Our online collections are sufficient to meet the needs of all UVic students in Engineering, Computer Science, and Data Science. Our licensing costs will not be impacted by the addition of approximately 100 more students in the Computing Gateway program.

We do not anticipate that we will hold a print collection on the West Shore campus, as the vast majority of resources to support teaching and learning in first and second year Engineering, Computer Science, and Data Science are available online. The libraries do have an existing policy of direct mailing print resources to students who are taking UVic courses from remote areas, and we can extend this service to West Shore students where necessary. West Shore students, like all UVic students, can request needed items via interlibrary loan when those resources are not held in our collection. Other library services can be delivered remotely including software workshops and one-on-one research consultations. Many students on Gordon Head campus also access these services remotely, so this will be an equitable way to provide access to students at the

West Shore campus. Please see Appendix 1 for a more fulsome list of library collections and services that will be available to students in the West Shore Computing Gateway Program. We anticipate that access to desktop computing resources, UVic licensed software, and printing services will be delivered through dedicated computer labs at the West Shore facility.

Overall, UVic Libraries are confident in our ability to support students in the West Shore Computing Gateway program with the same excellent level of service that we provide to all UVic students. Congratulations on your exciting program proposal. We look forward to continuing to work with you to make this program a reality.

Sincerely,

Lisa Goddard



Associate University Librarian  
Advanced Research Services  
University of Victoria

## **Appendix 1 UVic Libraries Resources - Engineering & Computer Science**

The UVic Libraries provide access to over:

- 3,885,500 physical and electronic resources
- 161,900 journals
- 850 databases
- 2,283 linear metres of manuscripts and archival materials in Special Collections and Archives with over 4,266 uses of materials in the library

The majority of the acquisitions budget is centrally allocated for the purpose of licensing of electronic journal collections, online databases, and electronic book collections. During the pandemic, it was evident that libraries faced demands for additional online resources due to accessibility issues, hence UVic Libraries has adopted the Evidence-Based Acquisitions (EBA) model. UVic Libraries has signed Evidence-Based Acquisition (EBA) agreements with the following publishers and their associated imprints: Cambridge University Press eBooks; JSTOR eBooks; Oxford University Press eBooks; Taylor & Francis eBooks and Wiley Online Books (eBooks).

Many Engineering and Computer Science programs benefit from UVic Libraries' vast resources and services. Liaison librarians work closely with departments and faculties on campus to ensure appropriate teaching and research resources are provided and meet existing and emerging needs.

### **McPherson Library**

The McPherson library since the return to in-person services in September 2021 has had over 627,000 visits with over 20,000 study room bookings. Additionally, we had 1,182,733 unique website views, 271,229 views of library research guides, 32,069 user requests answered by librarians and library staff and delivered 289 classes on library and archival resources in addition to the 5,856 participants we had to our digital skills workshops (on 3D printing, podcasting, data visualization, and more).

The Engineering collection includes materials related to Civil Engineering, Mechanical Engineering, Biomedical Engineering, Instrumentation, Electrical, Electronics, Computer Science, Computer Engineering, Software Engineering, and Applied Science.

### **BUDGET**

The total collections budget is \$10,050,000.00. The total allocation for Engineering and Computer Science is \$76,800.00. The current EBA collections budget is \$555,000 and the Standards budget is \$20,000.

## **Collections – Engineering & Computer Science**

The UVic Libraries provide access to many Engineering subject-specific databases.

### **Discipline Specific Databases:**

- Compendex (Engineering Index online)
- Web of Science (Core Collection, 1900-present)
- SciFinder
- Scopus
- IEEE Xplore
- ACM Digital Library
- ASCE
- ABI Inform
- Academic Search Complete
- Applied Science & Technology Index
- Applied Science & Technology Index Retrospective: 1913-1983
- ASFA: Aquatic Sciences and Fisheries Abstracts
- ASTIS - Arctic Science and Technology Information System
- Business Source Complete
- CiteSeer Scientific Literature Digital Library
- Collection of Computer Science Bibliographies
- DBLP - Digital Bibliography & Library Project
- Energy Citations Database
- Global Index Medicus - World Health Organization (WHO)
- Inspec (Engineering Village)
- MathSciNet (AMS)
- NTIS (National Technical Information Service)
- PubMed
- SciTech Connect
- TRID

### **Full-text or eBooks from UVic Databases of Databases**

- ASCE Library
- ASM Handbooks Online
- ASME Digital Collection
- ASTM Standards and Digital Library
- BCcampus Open Textbooks (BCcampus)
- Cambridge University Press eBooks
- Columbia University Press eBook Collection
- Eurographics Digital Library
- Informit
- InfoSci-Books (IGI)

- Morgan & Claypool eBooks
- O'Reilly Learning (fka Safari Books Online)
- Princeton University Press eBook Collection (De Gruyter)
- SAGE Knowledge eBooks
- SAGE Research Methods Foundations - Video
- SAGE Video: Data Science, Big Data Analytics, and Digital Methods
- SAGE Video: Practical Research and Academic Skills
- ScienceDirect eBooks
- Springer eBooks (SpringerLink)
- Springer Nature Experiments (Formerly Springer Protocols)
- SpringerLink with Digital Archive (EJournals)
- Stanford University Press eBooks (De Gruyter)
- Synthesis Digital Library of Engineering and Computer Science
- Taylor & Francis (eBook Collection on MyiLibrary platform)
- Techstreet
- University of Toronto Ebook Collections
- Very Short Introductions (Oxford)
- Wiley Books Online

### **Interlibrary Loan Services**

The Interlibrary Loan (ILL) system allows students to borrow material unavailable at the University of Victoria Libraries. The ILL requests can be submitted via the website and students have access to many resources in print and electronically (journal articles and technical reports) online.

Items requested can be picked up at the McPherson library in person or emailed to students, faculty and staff in their mailboxes.

### **Library Research Skills**

The Engineering and Science Librarian offers library instruction sessions in many undergraduate and graduate courses. In the past two years, the Engineering and Science Librarian offered 73 instruction sessions to approximately 2000 students from Engineering & Science. The learning outcomes of some of the generalized courses include:

- An introduction to discipline-specific databases
- Searching and retrieving information from these databases
- Information on searching for and retrieving standards, codes, regulations, and technical reports
- Academic Integrity
- Peer Review
- Misinformation and fake news
- Bias in Scientific Literature

- Systematic Reviews
- Citation management tools: Zotero, Mendeley and EndNote
- Evaluating Sources
- Science Communication Skills (Effective proposal writing, presentation skills, writing, visualization of research, interpersonal communication)
- Research Data Management

Most of these sessions and workshops are offered in person, but also online and in addition, to these the Engineering & Science Librarian has introduced asynchronous online modules embedded in BrightSpace. The course shell includes two components, Basic Research Skills for Engineering students which includes the following modules:

- Refining your research topic
- Evaluating sources
- Engineering Research Guide
- Finding background sources
- Citing sources
- Finding journal articles
- Different types of search terms!
- Citing sources
- Citation management software

The Advanced Research Skills for Engineering & Science includes the following modules:

- Advanced Database search strategies
- Finding newspaper and magazine articles
- Finding Standards
- Finding Thesis
- Citing sources
- Citation management software

In addition to these modules, the Engineering and Science Librarian six asynchronous database tutorials using LibWizard:

- Scopus
- Web of Science
- Library Search
- IEEE Xplore
- Google Scholar
- Compendex & Inspec (Engineering Village)

The following are the introductory workshops and courses offered by the Digital Scholarship Commons (DSC). The DSC also partners with many faculty in Engineering & Computer Science to offer 3D Design and Printing workshops.

- 3D Design & Print – Introduction

- 3D Design with Fusion 360 – Intermediate
- Coding with HTML & CSS – Introduction
- Electronics with Raspberry Pi (in development)
- Internet of Things with Arduino
- Laser Cutting
- Virtual Reality & 360 Tours
- Data Analysis with Excel
- Data Analysis with RStudio
- Data Visualization with Tableau
- GeoSpatial with QGIS
- Infographics with Canva
- Data Wrangling (or cleaning) with OpenRefine
- Survey Creation with SurveyMonkey
- Qualitative Data Analysis & Coding with NVIVO
- Qualitative Coding with Taguette
- Academic Posters with PowerPoint
- Design & Layout with Canva
- Data Management Planning – Hands On
- Persuasive Presentations or Death by PowerPoint?
- Interactive, Nonlinear Stories with Twine
- Scientific Documents with Latex
- Managing Research Projects with the Open Science Framework
- Introduction to Citatino & PDF Management with Zotero
- Personal Websites with WordPress
- Image Editing with Photoshop for Beginners (Win, Mac)
- Photography with your Smartphone
- Podcasting with Audacity
- Sketchnoting: Doodle Your Way to Better Grades
- Version Control with GitHub
- Video Editing with iMovie or Windows Video Editor (Win, Mac)

Wednesday, January 31, 2024 at 10:51:37 Pacific Standard Time

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**Subject:** FW: West Shore Computing Gateway - Draft Program Proposal  
**Date:** Wednesday, January 31, 2024 at 10:51:44 AM Pacific Standard Time  
**From:** enguoast  
**To:** enguoast  
**Attachments:** image001.jpg

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**From:** OREG SCP Consultation <[oregscpconsultation@uvic.ca](mailto:oregscpconsultation@uvic.ca)>  
**Date:** Thursday, January 18, 2024 at 3:43 PM  
**To:** LillAnne Jackson <[engradu@uvic.ca](mailto:engradu@uvic.ca)>  
**Cc:** Zane Robison - Associate Registrar <[assocreg@uvic.ca](mailto:assocreg@uvic.ca)>, "Ashley de Moscoso, Acting Associate Registrar" <[oregar@uvic.ca](mailto:oregar@uvic.ca)>, "Susan Corner, Associate Registrar" <[diradva@uvic.ca](mailto:diradva@uvic.ca)>, Marc Bavin <[mbavin@uvic.ca](mailto:mbavin@uvic.ca)>  
**Subject:** RE: West Shore Computing Gateway - Draft Program Proposal

Hi LillAnne,

Thanks for responding to OREM's feedback and questions on the West Shore Computing Gateway program proposal. We appreciate all your detailed responses. Please accept this email from me to demonstrate OREM's support for this new program.

We look forward to working with you and your team on the next steps of the proposal once approved.

Best,  
Wendy



Wendy Taylor (she/her)  
Acting Registrar  
Office of the Registrar and Enrolment Management  
Division of Student Affairs  
[University of Victoria](https://www.uvic.ca)  
T 250-721-8135  
[registrar@uvic.ca](mailto:registrar@uvic.ca)  
[uvic.ca/registrar](https://www.uvic.ca/registrar)  
*Together, we transform students' lives.*

We acknowledge and respect the lək'wəŋən peoples on whose traditional territory the university stands, and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

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**From:** OREG SCP Consultation  
**Sent:** Tuesday, January 9, 2024 8:56 AM



**To:** Associate Dean Undergraduate Programs, Engineering and Computer Science <[engradu@uvic.ca](mailto:engradu@uvic.ca)>  
**Cc:** Zane Robison - Associate Registrar <[assocreg@uvic.ca](mailto:assocreg@uvic.ca)>; Ashley de Moscoso, Acting Associate Registrar <[oregar@uvic.ca](mailto:oregar@uvic.ca)>; Susan Corner, Associate Registrar <[diradva@uvic.ca](mailto:diradva@uvic.ca)>; Marc Bavin <[mbavin@uvic.ca](mailto:mbavin@uvic.ca)>  
**Subject:** RE: West Shore Computing Gateway - Draft Program Proposal

Hi LillAnne,

Thanks for providing OREM with the West Shore Computing Gateway program proposal for our review and feedback. By way of this reply, I've cc'ed all four of my associate registrars so they are aware of the new program proposed for West Shore. Those associate registrars that need to will share the proposal with their teams and reply all to this message with questions and feedback.

Best,  
Wendy

---

**From:** Associate Dean Undergraduate Programs, Engineering and Computer Science <[engradu@uvic.ca](mailto:engradu@uvic.ca)>  
**Sent:** Wednesday, January 3, 2024 6:10 PM  
**To:** OREG SCP Consultation <[oregscpconsultation@uvic.ca](mailto:oregscpconsultation@uvic.ca)>  
**Subject:** West Shore Computing Gateway - Draft Program Proposal

Wendy and OREG Team,

Attached please find today's draft of the West Shore Computing Gateway program proposal. Notice that it does specify a new program for the beginning part of three existing degrees, Computer Science, Data Science and Software Engineering. Please review and provide me with your input.

Sincerely,  
LillAnne Jackson

--

LillAnne Jackson, PhD, P.L.Eng.,  
Associate Dean Undergraduate Programs  
Faculty of Engineering and Computer Science  
University of Victoria

Pronouns: she/her

[Engineering and Computer Science](#) | [UVic](#)

We acknowledge and respect the lək̓ʷəŋən peoples on whose traditional territory the university stands and the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.



Faculty of Science | Office of the Dean  
PO Box 1700 STN CSC Victoria BC V8W 2Y2 Canada  
T 250-721-7062 | sciidean@uvic.ca | uvic.ca/science | @uvicscience

## MEMO

Date: January 29 2024

To: LillAnne Jackson, Associate Dean Undergraduate Studies, Faculty of Engineering and Computer Science

From: Adam Monahan, Associate Dean Academic, Faculty of Science

Re: West Shore Computing Gateway

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Dear LillAnne –

Thanks for sending me the West Shore Computing Gateway Proposal. The Faculty of Science is in strong support of this proposal. We look forward to working with the Faculty of Engineering and Computer Science to provide foundational courses in mathematics and statistics at the West Shore campus. As well, we will work with ECS to help coordinate access of Gateway students to lab-based Faculty of Science courses required of their programs when they move to the Gordon Head campus.

Sincerely,

A handwritten signature in blue ink, appearing to read "Adam Monahan".

Adam Monahan  
Associate Dean Academic, Faculty of Science  
scieada@uvic.ca



January 29, 2024

**By Email**

Dr. LillAnne Jackson, PhD, Eng.L.  
Associate Dean, Undergraduate Programs  
Faculty of Engineering & Computer Science  
Associate Teaching Professor, Computer Science  
University of Victoria

**Re: Letter of Support for West Shore Computing Program  
Proposed by the University of Victoria**

Dear Dr. Jackson,

On behalf of the Victoria Innovation, Advanced Technology & Entrepreneurship Council (VIATEC) I am pleased to provide this letter of support for this important initiative..

VIATEC's mission is to cultivate the most cohesive tech community in the world by providing resources to tackle shared opportunities and challenges while boosting a sense of belonging and shaping our region. We represent thousands of tech entrepreneurs who are looking to launch successful companies in Canada.

My role as VIATEC's COO and Program Director is to leverage the resources in our community to provide the most comprehensive and meaningful education, coaching and mentorship for entrepreneurs and leadership teams in our local tech community.

Both as a UVic Computer Science alum (BSc UVic 1983) and as an active participant in the local tech community given my VIATEC role, I applaud the introduction of these sorts of introductory and bridging programs that will make a career in software development and software engineering much more accessible both geographically as well to a wider array of students. I know how important my education and degree was in forming my own career path, and the amazing opportunities it has provided, even though I haven't done any software development in at least 25 years! It was the foundation that was laid that I still rely on when speaking to a variety of stakeholders in the tech community.

# V I A T E C

I have passed by the construction site often as I have a son who lives on Peatt Road, and I have seen the signage regarding the collaboration between the post-secondary institutions, but I did not know what the larger plans were for this location. What a great idea to introduce this type of educational / academic programming to this area, the fastest growing area of the region.

Should you require anything further regarding our support for this project please do not hesitate to contact me.

Sincerely,



Robert Bennett  
COO, Program Director  
VIATEC  
Cell: (250) 888-4541  
[rbennett@viatec.ca](mailto:rbennett@viatec.ca)



2nd February 2024

Dr. LillAnne Jackson, PhD, P.L.Eng.,  
Associate Dean Undergraduate Programs  
Faculty of Engineering and Computer Science  
University of Victoria  
3800 Finnerty Road  
Victoria, BC V8W 2Y2

Dear Dr. Jackson:

Island Women in Science and Technology Association (iWIST) would like to submit a letter of support for the West Shore Computing Gateway Project proposed by the University of Victoria. The learner-centered program's goal to provide alternate pathways into computing-centric programs should allow for more under-represented groups, including women, to access a career in STEM, acting as a catalyst for a more diverse and equitable future for the sector.

iWIST was founded in 2016 as a non-profit aimed at using the power of community to support and promote women and girls in the STEM sectors. Supporting a program such as the West Shore Computing Gateway Project helps remove the barriers that women, particularly women located in rural areas, face when looking to pursue their interest, education and careers in science, technology, engineering and math. We see this as an excellent opportunity to significantly increase and enhance women's participation in BC's technology sector and the wider economy.

We firmly believe that organizations with similar goals should help each other, as together we have a better chance at filling crucial societal gaps in equity, accelerating a better future for everyone within STEM. As such, we are pleased to support this program, and the potential it has to stimulate young women's involvement in building the next generation of technology professionals.

Sincerely,



Louise Wilkinson  
Co-Chair, iWIST

*Bringing together women, non-binary people and allies in Science, Technology, Engineering, and Math  
in West Coast island communities*

February 5, 2024

University of Victoria  
Faculty of Engineering and Computer Science  
Engineering Undergraduate Office  
Room 206, PO Box 1700 STN CSC  
Victoria, BC V8W 2Y2  
By email: [ecs@uvic.ca](mailto:ecs@uvic.ca)

To Whom It May Concern,

**Re: Letter of Support West Shore Gateway ECS Programming**

I am writing this letter of support for the establishment of a course work pathway for students to complete 1.5 to 2 years of courses in computing-centric studies at a new University of Victoria Campus in the West Shore.

For the past fourteen (14) years I was the Director of Engineering and Public Works for the City of Langford. My position allowed me to be involved in the establishment of the building that will house the UVic West Shore Campus for the Faculty of Engineering and Computer Science (ECS).

I am also the parent to two young adults who have both recently completed post-secondary education, one at the University of Victoria and the other at Camosun College. I am very aware of the current costs and challenges, such as housing availability, that many young people are encountering today.

This unique building will be a huge feature for the West Shore. It will enable many high school students who may not have otherwise been able to afford to go to a post-secondary institute to stay living at home with the support of their families while they enter university.

The classroom sizes that will operate in small cohort-like classes will be more conducive to what students are familiar with from high school, and therefore less intimidating than traditional first year classes at a university.

I am a firm believer that this new program will increase diversity in admissions and support the success of young people in our West Shore community. A community that traditionally has had the lowest average of students pursuing a post-secondary education.

I wholeheartedly support this proposed program and look forward to opening day when the students will be able to attend in person.

Sincerely,

*Michelle Mahovlich*

Michelle Mahovlich, P.Eng., P.Geo., FCSSE



January 31, 2024

Dr. LillAnne Jackson  
Associate Dean Undergraduate Programs, Engineering & Computer Science  
University of Victoria

**Re: Letter of Support for Gateway Computing Program**

Dear Dr Jackson:

Camosun College's School of Trades & Technology and UVIC's School of Engineering have a lengthy and dynamic relationship of collaboration that supports students in our community on their journeys of learning in their chosen fields of engineering. That collaboration has taken the form of the long-running Engineering Bridge programs in Mechanical Engineering, Electrical and Computer Engineering, along with the newly launched Civil Engineering Bridge program in January 2024.

This relationship continues to grow and thrive with new opportunities to create seamless pathways for learners between our institutions. In this spirit of ongoing collaboration, Camosun College offers this letter of support for UVIC's proposed Gateway Computing program.

We look forward to our continued work with UVIC to benefit the citizens of the communities and regions we serve.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric Sehn', is placed over a white rectangular background.

Eric Sehn, Dean of Trades and Technology  
Camosun College  
4461-Interurban Rd  
Victoria, BC V9E 2C1

Mina Hoorfar  
Dean of Engineering and Computer Science  
University of Victoria  
3800 Finnerty Road  
Victoria, BC V8P 5C2

Dear Mina,

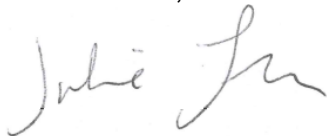
Thank you for the opportunity to review the West Shore Computing Gateway program proposal for the new West Shore campus in Langford. Like so many of us, I'm thrilled to be seeing this additional post-secondary campus become a reality in our community.

I can see that a very thorough and considered assessment has gone into proposing this program. This includes aligning with the proposed offerings from Camosun College, considering the needs of Indigenous students in program development, and identifying a path for students into Computer Science, Data Science, and Software Engineering.

The WestShore Chamber is entirely in support of the West Shore Computing Gateway program coming to the West Shore campus.

If you'd like to discuss further, please let me know!

All best wishes,



Julie Lawlor  
Executive Director

