

AGENDA

Academic Planning and Priorities Committee

Wednesday, March 27, 2024 - 2:30 PM
Abbotsford Campus, Room A225

Page

- 1. CALL TO ORDER and TERRITORIAL ACKNOWLEDGEMENT**
- 2. APPROVALS**
 - 2.1. Agenda**

MOTION: That APPC approve the agenda as presented.

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- 2.2. Minutes**

MOTION: That APPC approve the minutes of February 28, 2024 APPC meeting as presented.

- 3. PROVOST'S REPORT**
- 4. BUSINESS ITEMS**

7 - 16

- 4.1. Research Centre Proposal - Berry Environmental Resilience Research & Innovation (BERRI) Centre**

MOTION: That the APPC has reviewed the budgetary implications of the new Berry Environmental Resilience Research & Innovation (BERRI) Centre proposal and recommend to Senate Research Committee.

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- 4.2. New Program – Applied Geographic Information Systems (GIS) associate certificate**

MOTION: That the APPC has reviewed the new Applied Geographic Information Systems (GIS) associate certificate program proposal, including the budgetary analysis, and recommend approval to Senate.

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- 4.3. Terms of Reference Review**

MOTION: That the APPC recommend to Senate Governance Committee approval of the APPC Terms of Reference and Membership Composition as presented.

- 5. INFORMATION ITEMS**

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- 5.1. Human Services Program Review Progress Report**

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5.2. Senate Items – March 15, 2024

- Annual Consolidated Budget
- Philosophy Program review
- Program Suspensions
 - Physical Geography major
 - Physical Geography minor
 - Geographical Information Systems certificate
- Program Review Progress Reports
 - General Studies diploma
 - Bachelor of Integrated Studies
 - Psychology
 - Modern Languages Program

6. ADJOURNMENT and NEXT MEETING

Next Meeting: April 24, 2024; 2:30-4:30pm; Room A225



Draft Minutes
Academic Planning and Priorities Committee

Wednesday, February 28, 2024 - 2:30 PM
Abbotsford Campus, Room A225

Present: James Mandigo (Chair), Al Wiseman, Betty Poettcker, Camille Callison, Chris Campbell, Claire Carolan, David Johnston, Garry Fehr, Gerry Palmer, Gillian Hatfield, Jackie Hogan, Liana Thompson, Mark Brosinski, Michael Hitch, Nathan Bialas, Nicola Mooney, Pedro Montoya-Pelaez, Shirley Hardman, Sylvie Murray, Teresa Kisilevich, Tracy Ryder Glass, Vlad Dvoracek, Zina Lee

Guest: Mark Thomson (In-Camera)

Regrets: Awneet Sivia, David McGuire, Jassu Parmar, Samantha Hannah, Shawn Geniole, Shel Stefan, Vandy Britton, Vibhu Dikshit

1. CALL TO ORDER and TERRITORIAL ACKNOWLEDGEMENT

Quorum was noted and territorial acknowledgment was given.
Pink Shirt day today.

2. APPROVALS

2.1. Agenda

MOTION: That APPC approve the agenda as presented.
G. Palmer /2nd T. Kisilevich.
Carried.

2.2. Minutes

MOTION: That APPC approve the minutes of January 31, 2024 APPC meeting as presented.
G. Palmer /2nd T. Kisilevich.
Carried.

3. PROVOST'S REPORT

An update on the International cap numbers are coming soon, noting that OReg has been involved in the letter of attestation process.

4. BUSINESS ITEMS

4.1. Program Suspensions

- Physical Geography major
- Physical Geography minor
- Geographic Information Systems certificate

An overview of the suspensions were given, noting that enrolments have been very low with most of the upper-level courses being taught as directed studies. Suspending these programs provides an opportunity to develop a relevant curriculum with teaching and learning outcomes that coincide with community interests. The Budget Office provided an initial assessment noting that there is limited impact expected for the lower-level enrolments due to potential program growth in other areas. The fourth-year courses would continue as directed studies to accommodate the current students. The upper-level courses required by other programs are limited and offer alternatives for most. The budget office recommends reviewing the remaining course requirements for existing Physical Geography students and limiting the number of upper-level physical geography courses to the number required for students to meet graduation requirements. This would offset any financial impact from reduced department enrolments because of the suspensions. A question and answer period was had and it was noted that faculty teaching these courses will be involved in a curriculum reform work program for these programs and that almost all Physical Geography courses can be taught by human geographers. The department's obligation is to ensure that the current students will be able to graduate and will work with the students and Academic Advising to develop a course plan.

MOTION: THAT the APPC has reviewed the budgetary implications of the Faculty of Science request to suspend the Bachelor of Science Physical Geography major for two years.

G. Palmer/2nd T. Kisilevich.

Carried.

MOTION: THAT the APPC has reviewed the budgetary implications of the Faculty of Science request to suspend the Bachelor of Science Physical Geography minor for two years.

C. Campbell/2nd G. Palmer

Carried.

MOTION: THAT the APPC has reviewed the budgetary implications of the Faculty of Science request to suspend the Geographic Information Systems certificate for two years.

T. Kisilevich/2nd G. Palmer.

Carried.

4.2. Annual Consolidated Budget

Presentation was shown and notes that the consolidated budget plan development is guided by the Budget Principles and priorities include the Lálém ye mestíyexw (“House of the Peoples”), Strategic Enrolment Management Plan, Campus Renewal, 50th Anniversary, EDI Action Plan, and Internationalization efforts. We have a balanced budget and preliminary enrolments projecting into next year showed that domestic numbers are rising and expected to meet 2024-25 targets that were held flat from the prior year. International numbers exceeded current year plans and the growth is reflected in next years budget. Program growth is noted in new Post-Baccalaureate programs, Education, Health Studies, and Technology related programs. It was noted that domestic FTE’s rebounded 5-6% and are projected to continue to increase. The increase of Budget revenue put us in a good position to handle the extra costs due to additional salaries and benefits stemming from the new Collective Agreement, and additional operating costs, while still maintaining a contingency. The floor opened to questions and comments where it was noted that projected Ancillary revenues from the closure of the cafeteria and some parking areas are down a bit but are offset from the housing rental rates.

The APPC noted that this budget proposal puts UFV in a good position.

MOTION: THAT the APPC has reviewed and recommends the 2024/25 Draft Annual Consolidated Budget Recommendation to Senate.

M. Hitch/2nd P. Montoya-Pelaez.

Carried.

4.3. Terms of Reference Review

An overview was given of the extensive review that was done a few

Academic Planning and Priorities Committee
February 28, 2024

years ago and then again last year with the amalgamation of SBC and APPC.

The committee provided a few additional changes to consider and this will be brought to the next APPC meeting.

Tabled to the next meeting.

5. INFORMATION ITEMS

5.1. Program Review Progress Reports

- General Studies diploma
- Bachelor of Integrated Studies
- Psychology
- Modern Languages Program

5.2. Board Items – February 1, 2024

- Program Suspension – Mindfulness-Based Teaching and Learning Graduate certificate

5.3. Senate Items – February 16, 2024

- New School of Education
- Program Discontinuance – Philosophy extended minor

6. ADJOURNMENT and NEXT MEETING

Next Meeting: March 27, 2024; 2:30-4:30pm; Room A225

Adjourned at 3:56pm

BERRI Research Centre Proposal

Research Centre Proposal

Berry Environmental Resilience Research & Innovation (BERRI) Centre

Dr. Lauren Erland

Assistant Professor, Agriculture
Canada Research Chair Tier II in Berry Horticulture
University of the Fraser Valley

January 2024

BERRI Research Centre Proposal

1. Rationale for Research Centre

Proposed name of the centre:

Berry Environmental Resilience Research & Innovation (BERRI) Centre

Description of the Centre

Fruit production made up approximately 19% of all farm cash receipts for edible horticulture across Canada in 2022. Cranberries and blueberries were in the top 5 fruit crops by farm-gate value with a combined total of > \$540M in 2022 ². British Columbia's Lower Mainland is one of Canada's top fruit-producing regions. Unprecedented climate events, such as those experienced in recent years, significantly impact the industry, leading to greater year-over-year variability in expected yields and profits for growers ². The development of sustainable and climate resilient approaches to fruit production is a priority for B.C.'s fruit growers with the BC Council for Blueberry Growers and BC Cranberry Growers Associations listing varietal selection and characterization for locally adapted, high quality and climate tolerant species as a high priority research area for this industry ^{3,4}. The Berry Environmental Resilience Research & Innovation (BERRI) Centre will be located at the Canada Education Park Campus of UFV in Chilliwack and associated with the existing BC Agricultural Centre of Excellence, which has an existing provincial mandate to support state of the art education and research on agriculture in the Fraser Valley. The BERRI Centre will investigate ways to strengthen the resilience and sustainability of the berry sector and horticultural production systems. This will include predicting and enhancing the climate tolerance of berry species and varieties to build resilience into our horticultural systems, understanding the mechanisms that underpin their environmental adaptations, and development of sustainable frameworks for climate resilient food systems. The BERRI Centre, will bring together producers, government, researchers, and industry stakeholders from across B.C. to support investigations into the fundamental basis of plant climate change resilience and support community and grower led research efforts to develop sustainable agricultural systems.

A concise statement of the mission and research objectives of the proposed centre and its relationship to the strategic research plan and priorities of the university

The mission of the BERRI Centre is to improve sustainability and resilience of horticultural systems and ecosystems with a specialization in berries. The overall objective of the BERRI Centre is to provide a platform for the development of collaborative, interdisciplinary and undergraduate student supported research projects to support fundamental and community/stakeholder led research on plant climate resilience with national and international relevance.

A description of the scope of activities envisaged

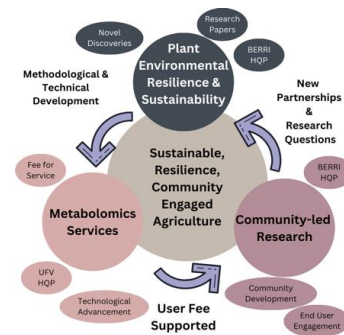
The scope of the program will encompass both fundamental and applied aspects of plant environmental resilience, sustainable agricultural practices and plant physiology through three core research streams:

BERRI Research Centre Proposal

1. *Plant environmental resilience & sustainable agriculture*: Climate change is a reality and is altering ecosystems and critically impacting berry cultivation and horticulture as well as wild, traditional and country food species. Research in the BERRI Centre will aim to investigate the fundamental basis of plant stress responses and apply this information to horticultural and agricultural systems.
2. *Core facility for plant phytochemical analysis*: Metabolomics is the simultaneous determination of all of the small molecules in a sample, which enables the investigation of the biochemical basis of physiology mechanisms be it identification of disease biomarkers, adaptive mechanisms of plant environmental resilience, nutritional profiles of foods, or identification of toxicological markers or pesticide residues. The BERRI Centre through the secured acquisition of a high-resolution mass spectrometry system with high performance liquid chromatography (HPLC-qTOF-MS) will have the capacity for both targeted quantification of small molecules of interest as well as untargeted metabolomics studies. The field of metabolomics and analytical profiling is a highly employable and marketable skill set which supports employment in high opportunity occupations as identified in the BC Labour Market Outlook.
3. *Community-lead research initiatives*: The BERRI Centre will engage with the broader community in the Fraser Valley through the establishment of a community and farmer-led research initiative. This initiative will emphasis applied end-user drive research. End users will develop research questions which through this initiative

The key collaborative activities and outcomes of the centre/institute to date, and a delineation of how different streams of research fit within a coherent structure within the centre/institute

The BERRI Centre will foster collaboration both within the UFV community through Streams 1 & 2 but also engage with the community to develop new research partnerships in the broader Fraser Valley community and B.C. through Stream 3. It will complement existing capacity at UFV, for example food and agriculture policy work conducted by the Food and Agriculture Institute (FAI), and create opportunities for collaborative and multidisciplinary projects. Overview of the research streams is given in the figure to the right.



Through the expertise within the BERRI Centre, research will pair fundamental plant biology studies with applied and interdisciplinary research to understand how best to achieve sustainable and resilient food systems which consider the people, systems, and environments in which these plants grow (Stream 1). Research projects in the centre will engage undergraduate student research assistants who gain experience in fundamental and applied research studies, while developing extension information and recommendations for stakeholders and generating rigorous scientific results which are disseminated through peer reviewed research studies.

BERRI Research Centre Proposal

Research at the Centre will explore and apply emerging technologies, including metabolomics and research areas such as metabolomics to interdisciplinary approaches and research from neurotransmitters in humans to plants to ecosystems. In order to make this equipment accessible to the greatest number of UFV students and researchers possible the BERRI Centre will establish a core facility for analysis of small metabolites by HPLC-qTOF-MS. Fees generated by this facility will feed back into the Centre, supporting engagement of HQP such as a technician or postdoctoral fellow, as well as providing start up funds for Stream 3 community-led research projects (Stream 2), which may evolve from or further shape fundamental research questions in Stream 1. This approach will ensure long-term sustainability of the centre.

The research benefits and opportunities that will result from the establishment of the centre, including a 5-year plan for how the proposed institute will facilitate research among scholars within the university and in the wider community, and create opportunities for students

Research among scholars: Through collaboration with research affiliates at partner institutions such as UBC, BC Ministry of Agriculture and Growers Associations trainees and researchers alike will have the opportunity to expand their networks, communicate and disseminate outcomes to end users and establish a local, national and international reputation for excellence in the area of plant environmental resilience, while returning benefit to our community. New collaborations between members, similarly will create new interdisciplinary research opportunities. The centre will also provide access to specialized equipment (untargeted and targeted metabolomics) and the necessary expertise to operate this equipment that is not available elsewhere at UFV. This will create opportunities to address research questions in emerging and highly relevant areas of research. It is anticipated that the centre will generate new scientific research which will be shared as collaborative and joint peer reviewed research articles.

Research within the university and the wider community: Through Stream 3 new projects and relationships between UFV and the broader community will be developed This program will leverage funds from user fees generated in Stream 2, or secured through external funding requests. Supported/selected projects will see the applicant paired with an undergraduate student and a BERRI Centre Research Associate who will provide consultation, research support and funds as assessed to be necessary through this program. This will enable community members to conduct small and applied research projects while providing trainees and HQP an opportunity to gain research experience. This will also create opportunities for networking and development of preliminary research or relationships which could become larger, longer and externally funded research opportunities. A full framework for the program will be established through the BERRI Centre governance structure. This will be established in response to community interest and inquires for such a program. Examples include assistance in establishment of propagation protocols for culturally relevance crop species, or investigation of climate effects at specific locations. While the BC Berry Councils, for example, provide support to researchers to address grower identified priority areas, this will be unique in that this will support growers or community members to directly develop and investigate their own research

BERRI Research Centre Proposal

questions. This is a model similar to what has previously been offered by the Lower Mainland Horticulture Improvement Association (LMHIA).

Create opportunities for students: This Centre will directly generate employment and training opportunities for students as research assistants in centre research projects. It will also create opportunities for student trainees in highly marketable fields, and create opportunities for transitions to graduate programs, professional designations, and employment. The BERRI Centre will also welcome trainees and visiting scholars from other institutions under the guidance of Centre members. The Centre will provide opportunities for networking for students to enable success entry into the job market for students who will have highly marketable technical skills as well as soft skills which are listed in the BC Labour Market Outlook as the top ten key skills areas necessary for the labour force. These include active listening, speaking, critical thinking, reading comprehension, judgement and decision making, social perceptiveness and complex problem solving, and writing. HQP engaged with the BERRI Centre are anticipated to develop the necessary experience to enter careers in diverse fields including the life sciences, business, agribusiness, food industries, plant biotechnology, cellular agriculture, pharmaceuticals, health management, environmental management, quality assurance and research among others.

YEAR 1: Establishment of the Centre, and development of the protocols and assessment criteria for community led research (Stream 3). Establishment of the core facility and recruitment of a technician or postdoctoral fellow (Stream 2). Writing of joint funding applications to support externally funded research in Stream 1. It is anticipated that by the end of Year 1 the core metabolomics facility will be fully operational and accepting samples from internal and external partners. First students will be engaged with the Centre. Centre members will demonstrate engagement through joint funding proposals or research projects and the RFP process for community led research will be established for deployment in Year 2.

YEAR 2-5: Continued engagement in Stream 1 & 2, with active engagement through partners and collaboration networks of centre members to identify new and ongoing research projects. Annual research review of Stream 2 RFP process in established, ongoing research activities and collaboration between members in place. Anticipate recruitment of additional centre members, which may be drawn from initial Centre collaboration networks, applicants from the RFP process, and new research collaborations from Stream 1.

A 2 -3 year plan for how the proposed centre will facilitate research

The Centre will facilitate research through three primary mechanisms.

STREAM 1: Knowledge translation & networking between Centre members and end users and rights holders to create opportunities for development of larger and longer-term projects. Through regular meetings between the centre members where students and trainees will be invited to share informal updates on their projects and results. This will provide students with the opportunity to gain skills in dissemination of their results in a friendly setting and stimulate

BERRI Research Centre Proposal

conversation about potential future collaborative Centre activities. Regular updates will be shared with members via email and will include information such as potential joint funding opportunities or requests for support and collaboration. It is anticipated that the activities in Year 1-3 will lead to jointly authored peer reviewed publications, opportunities for presentation of results at local grower associations, and national and international conferences, as appropriate to the project.

STREAM 2: The Centre will offer specialized equipment and technical expertise to operate this equipment to enable a greater number of researchers at UFV and in the community to access these services. Untargeted metabolomics analyses, for example, require specialized skills and knowledge, but can be applied to enable and expand a broad subset of research from understanding human health, environment health or plant climate resilience. Two streams of analysis will be offered. One for internal UFV student engaged projects on a low cost, cost recovery basis, and a second stream for community or industry members at a rate which generates profits to support broader research, operations costs, and support activities in Stream 3.

STREAM 3: Activities which will seek to pair community members with a BERRI member and their HQP for local scale projects. As significant externally available funding often requires proof of concept and industry or community partnerships this will also create opportunities for relationship building between community partners and researchers, generating new partnerships that can be leveraged for future funding requests and expanded projects.

A description of the relationship to the community. A centre may not necessarily have articulated connections with the community, although the research conducted through the centre should have a relationship to the strategic research priorities.

The BERRI Centre will be grounded in a relationship to community, the UFV research community and the greater research community across member institutions, but also in local agriculture, industry and First Nations communities. Through Stream 2 the BERRI Centre will provide services to agricultural producers and industry partners who wish to gain insights into the quality or characteristics of their products, crops and support undergraduate researchers at UFV in completing research projects requiring chemical analysis and metabolomics expertise. For example, Erland & Prasad have existing collaborative grants with Oceanspray (Jade Sherwood), the BC Cranberry Marketing Commission, and the BC Ministry of Food and Agriculture Small Fruits Specialist Carolyn Teasdale, and plant pathologist Siva Sabaratanam. Erland and Murch have existing collaborative projects with Syilx Okanagan Nation. Dr. Reid, Dr. Prasad and Dr. Pizzirani have existing relationships with Stó:lō Nation. Stream 3 will enable the development of community led projects brought forward by First Nations, industry, agriculture or Fraser Valley Community members. This community engagement will be essential in help direct ongoing efforts and inform research priorities of collaborative and joint projects in Stream 1.

BERRI Research Centre Proposal

2. Governance Structure

The organizational structure of the centre

- BERRI will be led by a Director who will report to the AVP Research and Graduate Studies.
- A Research Management Committee comprised of the AVP Research and Graduate Studies, the Director of the BERRI Centre and the Director, Research Services & Industry Engagement will be established who will guide the work at BERRI.
- A part-time lab technician or postdoctoral fellow will be hired to support the metabolomics core metabolomics work in STREAM 2 through external funding. An administrative assistant may be hired to support logistics, subject to funding.

Membership categories, the conditions of membership, and procedures for evaluating and renewing membership

- **Faculty Associates:** Permanent UFV Faculty directly engaged in BERRI activities; as per Policies 197 and 211
- **Research Associates:** Sessional, adjunct faculty, postdoctoral students at UFV or researchers external to UFV with an interest in or engagement with BERRI activities
- **Student Members:** Undergraduate or graduate students participating in BERRI activities under the supervision of a Full or Associate Member.
- **Staff Members:** Technicians or Administrative Assistants

Procedures whereby a Director is identified and appointments are made to the management committee and other relevant committees.

- The Director of the BERRI Centre is Dr. Lauren Erland who holds a Canada Research Chair Tier II. The Director oversees the work of BERRI and serves as supervisor for BERRI staff members, in consideration of advice from the Research Advisory Group.
- The Director recommends membership in the BERRI Centre for potential Faculty Associates and Research Associates to the AVP Research and Graduate Studies for approval.
- The Director submits annual reports to the AVP Research and Graduate Studies.
- The Director liaises with the Research Office and meets regularly with the AVP Research and Graduate Studies.

The privileges and responsibilities of membership

- Members of BERRI are entitled to request use of its research facilities, upon approval by the Director.
- Associates and postdocs are responsible for research supervision and training of student members.

BERRI Research Centre Proposal

3. Proposed Membership

A list of the proposed members of the centre or institute broken down by the various membership categories, and department or institutional affiliations

Centre Director: Dr. Lauren Erland, CRC Berry Horticulture

Faculty Associates :

Dr. Renee Prasad, Associate Professor & Head, UFV Agriculture

Dr. Stefania Pizzirani, Associate Professor, UFV Planning, Geography and Environmental Studies

Dr. Alan Reid, Associate Professor, UFV Biology

Dr. Mitra Tabatabaee. Assistant Professor, UFV Biology

Research Associates:

Dr. Susan Murch, Professor, Chemistry, UBC Okanagan

Jade Sherwood, Oceanspray Cranberries

Further members will be recruited and instated through the above outlined membership approval process and include members of the UFV community and community partners as appropriate

4. A centre requires, at a minimum, an advisory committee which may have internal members only.

A Research management Committee will oversee work at the Centre and will be comprised of the Centre Director, the AVP Research Engagement and Graduate Studies, and Director Research Services and Industry Engagement Ash Lalani. Dr. Erland will serve as the chair. They will meet once a semester, no less than twice per year.

An internal Advisory Committee will be constituted of all Full Members of the Centre. The Advisory Committee will determine general direction and priorities of the Centre, approve new full, associate and student members on recommendation of the Director and receive annual reports from the Director prior to submission to the AVP Research Engagement and Graduate Studies.

5. Physical Resources

- a. A description of current research facilities (e.g. laboratories, space, equipment)

The BERRI Lab at the UFV Chilliwack campus is currently under construction and fully funded through recently secured CFI JELF and BCKDF grants with matching contributions from UFV. It will have all necessary equipment and facilities to support research activities proposed for the Centre. The BERRI Lab will be outfitted with plant tissue culture and metabolomics facilities and is adjacent to the UFV Agricultural Center of Excellence, including a climate-controlled polyhouse dedicated to research use.

BERRI Research Centre Proposal

b. An indication of likely future requirements, including a proposed strategy for funding these new or replacement resources.

No additional space or equipment needs are anticipated in the next 5 years. Future equipment if needed will be funded externally. Maintenance and upkeep of essential equipment will be supported through the already secured CFI Infrastructure Operating Fund.

6. Financial Resources

a. A detailed budget proposal for the first three years

No short term or long-term financial commitments are anticipated to be required from UFV. Funds for one part-time postdoctoral fellow or technician to support activities in Stream 2 have been requested from external funding sources at an anticipated cost of \$30K per year. Additional funds of \$30K per year are secured through Dr. Erland's Canada Research Chair Appointment and will be used to support student salaries and research activities.

b. An indication of how funding may be sought for the resources

Additional funding supports have been requested through NSERC-SSHRC Sustainable Agriculture Research Initiative, NSERC and other industry supported funding opportunities such as the BC Centre for AgriTech Innovation (BCCAI). Funding support will be sought if these requests are unsuccessful through industry partnership or co-funding through programs such as MITACS and NSERC Alliance. All equipment and infrastructure are sufficient, with funds secured for upkeep and maintenance for at least the next 5 years through the existing CFI. Funds which are generated as a result of fee for service work in Stream 2 are not essential, but will provide additional support for engagement of a postdoctoral fellow or technician, as well as supporting future new research opportunities. Average costs for metabolomics analysis at other facilities range from \$30/injection for internal users to \$140 for industry with additional hourly costs for method development (e.g. \$100 - \$300/h), data analysis (\$50-250/h) and sample preparation (\$50-250/h). Assuming an average run time of 60 min per sample and ~173 work hours per month, full time sample analysis could generate funds of \$5K to \$24K+ per month depending on demand, sample type, additional analysis services (sample prep, data analysis etc) and end-user type (internal vs industry).

7. Statements of Support and Commitment

Request from Lenore FAI



February 28th, 2024

Food and Agriculture Institute
University of the Fraser Valley
33844 King Road
Abbotsford, BC
V2S 7M8

RE: BERRI Research Centre

Dear Dr. Fehr;

I'm writing to strongly support the creation of Dr. Erland's Berry Environmental Resilience Research and Innovation Centre, BERRI. This new centre will be a critically important addition to UFV's applied research portfolio and directly serves the local community in accordance with our mandate as described in the Universities Act of British Columbia.

BC's berry industry is robust. In 2020 we produced 175 million dollars worth of blueberries, 30 million dollars worth of cranberries, 70 million dollars worth of grapes, and 17 million dollars worth of raspberries. There is also interest in creating an indoor strawberry industry in BC to offset declining production in California and Mexico. However, with the exception of grapes, Canada is underserved in terms of berry-focused applied research. This institute could fill this gap locally and support berry production nationally.

UFV has strong past performance in berry production, and both serves the blueberry industry and helped to develop novel Canadian crops such as haskap. In addition, berries are a very important part of indigenous foodways across Canada, and there are dozens of local berry species that have been largely ignored and understudied.

The proposed centre also aligns well with the work of FAI. Dr. Erland's applied field and science focus pairs well with FAI's policy and technological innovation focus. Dr. Erland is an affiliate of FAI, allowing for easy collaboration, and FAI fully supports this proposal.

Thank you and feel free to contact me for further information,

Sincerely yours,

A handwritten signature in blue ink that reads "Lenore Newman".

Dr. Lenore Lauri Newman
Director, Food and Agriculture Institute
Advisor to the Provost, Agriculture
Emeritus Fellow of the Royal Society of Canada, College of New Scholars, Scientists,
and Artists
604 754 0569 lenore.newman@ufv.ca

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MEMO

TO: APPC
FR: Dr. Claire Carolan, AD/PDQA
CC:
RE: New Program Proposal, Faculty of Science - Applied GIS Associate Certificate
DATE: March 13, 2024

A program working group led by Dr. Mariano Mapili has submitted a proposal for a new Applied GIS associate certificate for APPC review and recommendation.

Under the program development procedures in the [Appendix to policy 21, Undergraduate Program and Course Approval](#), this proposal follows the non-degree process for programs that do not require Ministry approval.

To date this program has been reviewed according to the guidelines as follows:

Faculty of Science Curriculum Committee, Approval February 2, 2024
UEC, Approval, March 1, 2024

The next step according to the existing guidelines are:

Senate Budget Committee (SBC) Following UEC approval, PDQA submits the budgetary analysis, program proposal, and calendar copy to SBC for review and approval.

Academic Planning & Priorities Committee (APPC) and Senate: Following UEC and SBC approval, PDQA ensures completeness of all documents and submits the proposal to APPC and Senate for information. APPC and Senate reserve the right to request revisions to the proposal if deemed necessary. If Senate determines that the program has substantially changed from what was proposed in the Concept Paper, Board approval will be solicited prior to program implementation.

Due to the amalgamation of SBC and APPC, PDQA recommends the following motions:

[THAT] due to the amalgamation of SBC and APPC, APPC will review the budgetary analysis, program proposal, and calendar copy as submitted for the Applied GIS associate certificate proposal and on approval will submit it to Senate for information.

[THAT] APPC has reviewed the budgetary analysis, program proposal, and calendar copy as submitted for the Applied GIS associate certificate proposal and approves the program for implementation.



UEC MEMORANDUM

UEC Chair: Samantha Hannah
Phone: 4070

UEC Assistant: Amanda Grimson
Phone: 4571

TO: Dr. James Mandigo, Academic Planning and Priorities Committee Chair
FROM: Samantha Hannah, Undergraduate Education Committee Chair
DATE: March 4, 2024
RE: Applied Geographic Information Systems associate certificate

At its March 1, 2024 meeting, UEC voted to recommend that Senate approve the new Applied Geographic Information Systems associate certificate. UEC recommends that this be recommended by APPC and approved by Senate.

Additional information is on the attached documents.



MEMO

To: UEC
From: Afia Raja, Department Head of Planning, Geography and Environmental Studies
Ian Affleck, Associate Dean of Science
CC: Claire Carolan, Associate Director, PDQA
Date: 2024-02-23
Re: Faculty of Science Program Proposal: Associate Certificate in Applied GIS

The proposed Applied GIS Associate Certificate has been developed by the Department of Planning, Geography and Environmental Studies, in part in response to calls at the provincial level and institutional level for micro-credentials. The credential is very compact, requiring completion of just three applied GIS courses (at most 14 credits total), one of which may be a capstone involving work-integrated learning. It provides hands-on, applied skills that are in demand in a variety of industries. Students currently enrolled in a 4-year program at UFV will be able to enter the credential after the equivalent of two years of full-time study, and complete it in the final two years of their program. Meanwhile the credential is accessible to graduates of diplomas or degrees who are now in the workforce, perhaps in areas such as archaeology, Indigenous land use and title, health care or social work policy, environmental studies, agriculture, urban planning or business.

The submitted proposal for this credential includes the following rationale. The *Applied GIS Associate Certificate* will provide a definite advantage to UFV graduates who seek employment in industries with high-paying jobs, where GIS is a regular part of the job and where GIS-ready applicants are most desired. GIS complements any industry that uses location data, GIS skills are readily transferrable, and those who graduate with general GIS credentials will be able to use GIS as a tool in any field they would like to work in. With the proposed credential, UFV graduates can provide proof on-the-job training, hands-on GIS experience, and most important is the learning focused to the use of GIS in a particular industry. The three-course credential will attract students who are in their final years of completing their degrees or diplomas who wish to gain GIS skills that are immediately applicable to an industry they identified as their future career, but are not seeking a credential which is the size of the 31-credit UFV *GIS Certificate*. The proposed credential provides UFV graduates access to relevant post-secondary education that also benefits local industries. The applied GIS courses to be required in the proposed credential do not have prerequisites since these are stand-alone applied GIS courses, so the credential can be completed in less than 12 months. Student surveys revealed strong demand for the *Applied GIS Associate Certificate*, supported by testimonials from students who found employment using the GIS skills they have acquired in one or two applied GIS courses at UFV, and who were willing to take one more GIS course to obtain an Applied GIS Associate Certificate. The proposed credential is fully supported by consulted external and internal stakeholders.

Note: Documents are available in S:\Groups\UEC\2024-03001 Applied GIS associate certificate.

Applied GIS associate certificate

CWC comments and responses:

- OReg/Admissions will provide feedback on the entrance requirements.

We are working with admissions on this. Our preference would be...

One the following: completion of any of the four 300-level courses OR completion of a 3- or 4-year degree or 2-year diploma from a recognized post-secondary institution.

- Pre-Check understands that this proposal has been revised to remove specializations, but these are still referenced in several places, including the executive summary and the “How to apply” section of the calendar copy.

Yes, any reference to specializations should be removed. That's an oversight by us. We believe the only references to specializations in the *revised* calendar copy provided by CWC is in section 5. Suggested re-wording:

"The required 10-14 credits to complete the Applied GIS Associate Certificate will consist of three applied GIS courses, where you will learn essential concepts of GIS and related geospatial technologies and gain hands-on digital mapping experience ~~in the related industry of your choice~~. Substitute an applied GIS course with a capstone GIS project course completed in various experiential learning pathways such as co-op, internships, or a GIS Project course, where you will create a professional-quality GIS portfolio focused on a particular industry's data needs, workflow, geoprocessing, and digital mapping, demonstrating ~~to the industry of your choice~~ that your GIS skills are relevant in that industry."

- Does this program ladder into the GIS certificate? UEC may want additional information on the relationship between these two programs. A covering memo that includes some of the information in the email below will be helpful for UEC.

It doesn't ladder into the existing GIS Cert as that certificate is currently structured. Applied GIS Assoc Cert has an applied focus. GIS Cert has more focus on programming.

- Should the calendar copy include a residency requirement that requires more than 25% of the program requirements (i.e. one course) to be completed at UFV?

At least 25% of program requirements completed at UFV is fine.

- Should a minimum grade in each course be required, or is a program GPA of 2.00 sufficient for graduation?

Prefer program GPA. We don't want someone to have to repeat a course where they got a C- or D, maybe due to extraordinary personal circumstances, if they did well in the other two.

- The current presentation of the capstone course in the program requirements may be problematic; suggested revisions are in the attached draft calendar copy document. Additional sections of the calendar copy have also been updated to reflect standard calendar language.

We agree with the suggestion in the attached edited calendar copy draft.



Appendices for NON-DEGREE PROGRAM PROPOSAL

Applied GIS associate certificate

UNIVERSITY OF THE FRASER VALLEY

Department of Planning, Geography, and Environmental Studies
Faculty of Science

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Appendix A: Student Surveys

PILOT STUDENT SURVEY

The pilot student survey, conducted to determine student demand for three GIS specializations in a GIS associate certificate, is shown in a series of boxes below.

Since this survey was conducted, the proposal has changed. Instead of proposing three separate associate certificates in different applied fields (*Community Health Mapping, Environment and Resource Mapping, and Municipal and Regional Mapping*), the proposal is now to build a single Applied GIS associate certificate with course options for the applied areas of specialization.

Thank you for participating in this pilot student survey to gauge student demand for GIS Associate Certificates in Applied Digital Mapping.

Please read the short background material before you answer the questions.

Geographic Information Systems (GIS) is a technology of using digital maps to answer questions related to location. GIS technologies including GPS and Remote Sensing, allow you to find the optimal location for a school, a business, a house, or a bus route. GIS allows you to determine the communities that will be affected by a storm, an earthquake, a wildfire, and the best location for local and regional evacuation centre when natural disasters strike. If location matters, GIS is a technology that comes to aid. Through geographic profiling, criminologist can use GIS to narrow down the location of a suspect, monitor the spread of diseases such as COVID-19, or predict the environmental impact of a forest operation. If the situation involves location, GIS is sure to help visualize the problem and provide solutions.

The School of Land Use and Environmental Change (SLUEC) is proposing three GIS specializations as GIS Associate Certificates in Applied Digital Mapping related to the specialization, concentration major, or minor, of currently registered UFV students, to give them an edge in their applications to jobs related to mapping. These 3-course (12-14 credits) are for students who do not have the time to start and finish the 31-credit general GIS Certificate, but who can arrange to take the associate certificate while completing their degree at UFV. If you have time to work on the GIS Certificate within your program, we suggest you ask about our GIS Certificate. The three GIS specializations as GIS Associate Certificates being proposed are:

- 1. GIS Associate Certificate in Community Health Mapping.** Specially created for those who would like to work with community organizations that provide protection of communities through health care, crime prevention, care for the elderly, immigrant assistance, advocates for housing, social work, and disaster management.
- 2. GIS Associate Certificate in Environment and Resource Mapping.** This credential is designed for those who would like to work in the environment and resource sectors, as environmental planners, foresters, ecologists, conservation officers, agriculturists, and most resource-related jobs that use maps as a tool of the trade.
- 3. GIS Associate Certificate in Municipal and Regional Mapping.** If working for the government is your dream, this credential gives you an advantage over the competition on positions in different municipal departments such as parks and recreation, by-law enforcement, engineering, small business, or various departments of the regional government.

We are asking you to please fill the survey which will take you less than five minutes. The survey is anonymous, your answers will remain confidential as they guide us in the development of the proposals. Please answer the following questions to the best of your knowledge.

1. What is your degree program? Diploma program, major, minor, specialization, or concentration if you know, are also appreciated. Even if you have not declared your major yet, please state the program you are planning to apply for.

2. On a scale of 1 (not important) to 5 (very important), please rate the importance of GIS mapping to your degree /diploma program, major, minor, specialization, or concentration and in your future job search.
 - 5-GIS Mapping is a VERY IMPORTANT part of my degree/diploma program.
 - 4- GIS Mapping is an IMPORTANT part of my degree/diploma program.
 - 3- GIS Mapping is NEITHER UNIMPORTANT nor IMPORTANT part of my degree/diploma program.
 - 2- GIS Mapping is SOMEWHAT UNIMPORTANT part of my degree/diploma program.
 - 1- GIS Mapping is NOT IMPORTANT part of my degree/diploma program.

3. Have you heard of GIS before? *Please check the appropriate answer.*

Yes No

4. Have you heard of the GIS Certificate at UFV? *Please check the appropriate answer.*

yes no

5. Have you taken a GIS course at UFV or other institutions? *Please check the appropriate answer.*

yes, how many courses _____ no

6. Have you heard of the GIS Certificate at UFV? *Please check the appropriate answer.*

yes no

7. Are you currently pursuing a GIS Certificate? *Please check the appropriate answer.*

Yes no

8. Which of the three associate certificates described in the introduction would be most applicable to your degree/diploma program, major, minor, specialization, or concentration? *Please check all applicable answers.*

- GIS Associate Certificate in Environment and Resource Mapping
- GIS Associate Certificate in Community Health Mapping
- GIS Associate Certificate in Municipal Mapping

9. If you are interested to know more about the GIS Associate Certificates, please write your e-mail address here _____ and we will be in contact with you soon.

This is the end of the survey. Thank you very much for providing us your answers.

Applied GIS Courses at UFV

Tracking the changes in the set of applied GIS courses that form the core courses for the proposed GIS associate certificates was determined to be an effective way to understand student demand in the proposed three specializations. The student composition of BIO/GEOG 357: Conservation GIS in three semesters is shown in *Figure 1*.

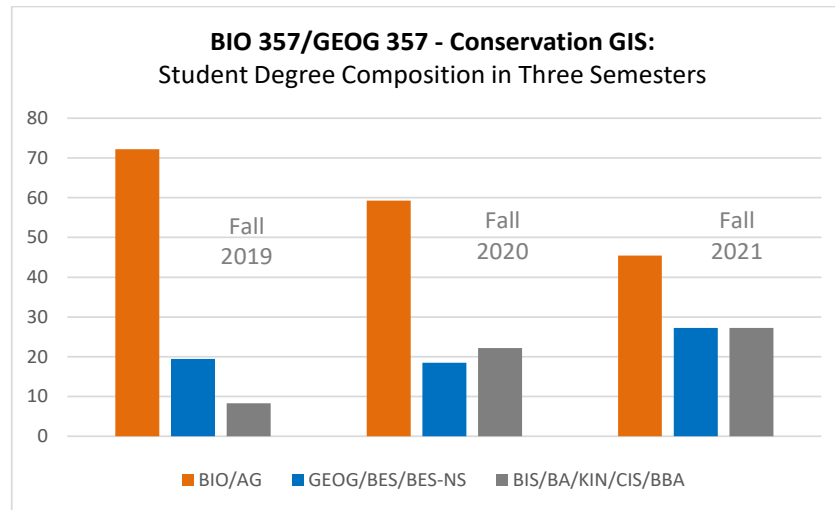


Figure 1. Student degree program composition for BIO/GEOG 357: Conservation GIS

BIO/GEOG 357: Conservation GIS was developed in consultation with the Biology Department where the applied GIS course was marketed to BIO students to complement their ecology, biogeography, and epidemiology courses that need mapping. The diversity of students taking the course as shown in *Figure 1* points to the dominance of BIO/AG in early offerings of the course, to the increasing participation of SLUEC students when the BES/BES-NS programs were offered. BA-Geography students were only required to take the introductory GIS course while the BSc (Physical Geography) students took two prescribed GIS courses, and the applied Conservation GIS course was only attended by GEOG/BES/BES-NS students who still had room left in their program. The most exciting observation about the graph is the steady increase in the participation of programs that were not traditionally users of GIS, with BIS and BA+ (BA programs other than Geography) leading the pack. To address the heterogeneous mix of specializations in the BIS and BA+ programs, there is a need to offer specialization options in any proposed GIS associate certificate(s).

GEOG 358: Forensic GIS, is an applied GIS course that was marketed to the CRIM students for their crime mapping and environmental criminology activities, thus the dominance of CRIM students in the early years of course offering. *Figure 2* shows that this CRIM dominance started to wane in similar fashion as that for the BIO/AG in Conservation GIS. Some CRIM students who wanted to pursue crime mapping as a career continued their aspirations at BCIT with the transfer credit of Forensic GIS being expedited through communication channels with BCIT professors.

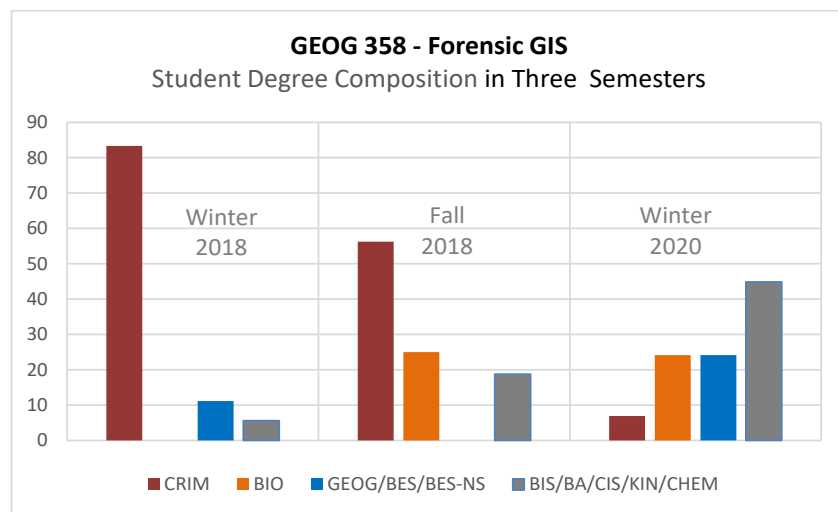


Figure 2. Student degree composition for GEOG 358

Applying GIS technology in solving crimes did not appeal to the AG students, but some BIO students, after passing their Conservation GIS course and having found out that Forensic GIS is also based on biological data and techniques, started to take both applied courses.

It was the realization that if UFV students have taken two applied GIS courses at UFV, they only could greatly benefit from a GIS capstone project which they can obtain through industry co-op or internship.

The proposed *Applied GIS associate certificate* can complement the student’s UFV degree, leading to access to better paying jobs where they can apply their GIS/mapping skills. The current proposal was born out of this observation and realization, but because of the increasing diversity of programs represented in our applied GIS courses, we would like to extend the benefits of the associate certificate to other degree programs. Our idea is for the number of GIS specializations to expand (or contract) to match the needs of jobs in industries, making the program flexible, useful, and up to date with the needs of industry.

The Respondents

To gauge the demand for the three specializations originally proposed in the GIS associate certificate in Applied Digital Mapping, two sections were requested to participate. The lecture section of *GEOG 103: The Physical Environment* was a good section for this purpose because it is a course where GIS is introduced in the first meeting. The section which was composed of 31 students who were taking the course for a lab science requirement. The section in *BIO/GEOG 357: Conservation GIS* had 22 student respondents and was composed of 22 students mostly from BIO and SLUEC programs in their second or third year at UFV.

Pilot Survey Results

The principles of Gender Based Analysis (GBA+) guided the design and analysis of results of the pilot survey. The composition of the participants in the pilot survey in terms of gender and program appears in the graph below. Gender disparity is easily identified in CRIM and BIS/BA+/BBA programs and reflect the gender trends in these programs.

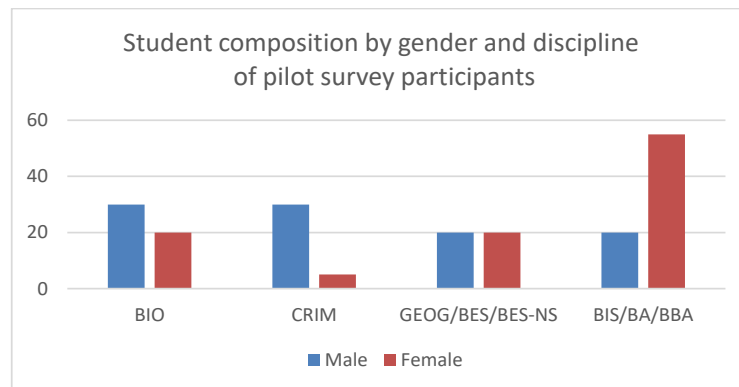


Figure 3. Gender and discipline composition of pilot survey respondents

When asked to rate the importance of mapping in their own programs, the rating of high importance for both CRIM and SLUEC programs were expected as maps are common tools of geographers and criminologists alike (see *Figure 4*). The even split in the BIO program reflects the main groups in the program where in one group, maps are very useful, but maps are not appreciated as a main tool in the other group. With diverse disciplines, the rating of the importance of maps in the BIS/BA+/BBA programs covers the whole range of answers. With the difficulty of predicting demand in this group, the main implication would be to offer multiple GIS specializations to honour principles of EDI.

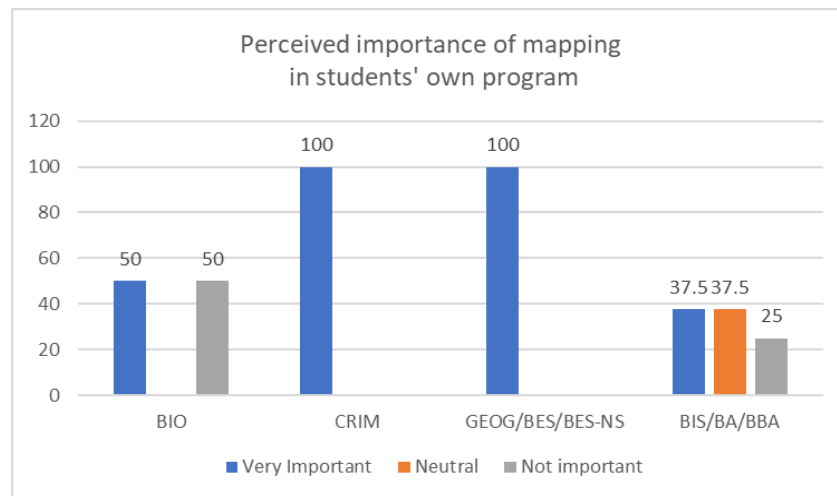


Figure 4. Perceived importance of mapping in the respondent's own program

Ultimately, understanding the distribution of the GIS specializations as chosen by the students would be most related to the demand for the different GIS associate certificates that were initially considered. Gender balance as shown in *Figure 5* is only for respondents who chose Community Health Mapping. It is difficult to find reasons for this observation, but it can be surmised that the “*environment*” brand appeals more to females and conversely, the “municipal” brand might appeal to males. The implication of this result to program administrators is the need to follow a more careful and sensitive approach to programming the different GIS specializations.

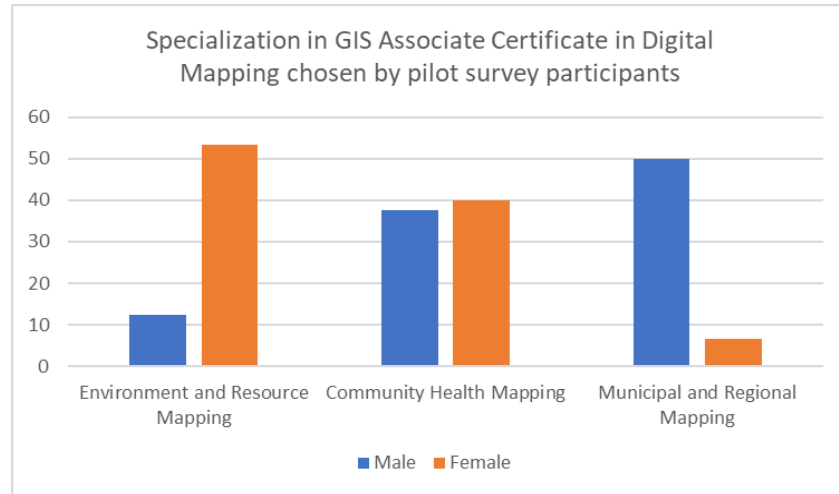


Figure 5. Choice of specialization segregated by gender.

The pilot survey results reveal equal appeal of the three GIS specializations, but gender imbalances may need to be addressed. Even with the limited survey (n=53) there are indications of student demand for the three GIS specializations, a demand that the current GIS faculty at SLUEC can support without additional resources.

GIS CREDENTIAL+ STUDENT SURVEY

The GIS Credential+ student survey schedule

Results of the pilot survey were used to build the [GIS+ Credential+ Survey](#) in SurveyMonkey where 117 respondents' answers were analyzed following Gender-Based (GBA+) Analysis.

The survey schedule as it appears below was downloaded from SurveyMonkey as screenshots since the download did not lend itself for paper presentation.

GIS Credential+ Survey

Welcome to our survey

The School of Land Use and Environmental Change (SLUEC) would like to offer a GIS credential+ that you can add to your degree to help you access jobs in the industry of your choice, jobs that are usually not accessible through your degree alone.

SLUEC would love to get feedback from you to be able to understand how to offer to students the most effective GIS credential+ in the most efficient way, and to do this we invite you to complete the survey below.

The GIS credential+ survey will take less than 10 minutes to complete. Your feedback will be entirely anonymous and greatly appreciated.

Upon completion of the GIS credential+ survey, you'll have the option to provide your e-mail address to be entered into a draw to win a gift card.



GIS Credential+ Survey

Degree

1. What degree are you pursuing at UFV?

The screenshot shows a survey question with a dropdown menu. The question is "1. What degree are you pursuing at UFV?". The dropdown menu is open, displaying a list of degree and diploma options. The list is divided into two columns. The left column includes: Associate of Arts Degree, Associate of Science Degree, BA in Global Development Studies, Bachelor of Agriculture Science, Bachelor of Arts, Bachelor of Business Administration in Aviation, Bachelor of Computer Information Systems, Bachelor of Environmental Studies, Bachelor of Environmental Studies NS, Bachelor of General Studies, Bachelor of Integrated Studies, Bachelor of Kinesiology, Bachelor of Science, Diploma in Agriculture Technology, Diploma in Business Administration, Diploma in Computer Information Systems, and Diploma in General Studies. The right column includes: Bachelor of Computer Information Systems, Bachelor of Environmental Studies, Bachelor of Environmental Studies NS, Bachelor of General Studies, Bachelor of Integrated Studies, Bachelor of Kinesiology, Bachelor of Science, Diploma in Agriculture Technology, Diploma in Business Administration, Diploma in Computer Information Systems, Diploma in General Studies, Diploma in Liberal Arts, Geographic Info Systems Cert, Nursing Track, Qualifying Studies, Studying for General Interest, Visiting Student on Exchange, and Other (please specify).

GIS Credential+ Survey

Gender

2. What is your gender?

- Male
- Female
- Other
- Prefer not to say

GIS Credential+ Survey

Expected graduation

3. In what month and year are you expected to graduate?

December 2021 ▾
December 2021
June 2022
December 2022
June 2023
December 2023
June 2024
December 2024
June 2025
December 2025
After 2025

GIS Credential+ Survey

Birth Year

4. What year were you born?

A dropdown menu for selecting a birth year. The menu is open, showing a list of years from 1980 to 2004, and an 'Other (please specify)' option at the bottom. The years are listed in two columns: 1980-1986 on the left and 1998-2004 on the right. A vertical scrollbar is visible on the right side of the list.

1980	1998
1981	1999
1982	2000
1983	2001
1984	2002
1985	2003
1986	2004
	Other (please specify)

GIS Credential+ Survey

Group

5. Please check all applicable boxes that correspond to the group/s you belong.

Visible minority

Indigenous

LGBTQ2+

Foreign student

None of the above

GIS Credential+ Survey

UFV Career Mapping Tool

The Career Mapping Tool (CMT) is a web-based interactive tool designed to provide recommendations on career options available from various programs at UFV. New students, graduating students, and alumni, are encouraged to use CMT to build their current and future careers.

- Liana Thompson
Director, Centre for Experiential and Career Education

“We create Career Mapping to bridge the gap between academic advising and career advising, and to also shift students away from an old model of career development focused on a linear mindset that no longer works for many people.”

- Linda Pardy
Founder, Pardy Group, Associate Dean of Students, College of Arts



6. Have you used the Career Mapping Tool in your MyUFV yet?

- Yes, I have used the Career Mapping Tool in MyUFV account.
- No, I did not have the time to check out the Career Mapping Tool in MyUFV account.
- No, I did not even know the Career Mapping Tool existed.
- Not yet, but I will check out the Career Mapping Tool soon.

GIS Credential+ Survey

BUILD Pathway

In the Career Mapping Tool, if you BUILD your degree by adding a Credential+ you have access not only to more job prospects but also to jobs that are better paying.

7. How interested are you in applying for a GIS Credential+ now that you know the benefits of having a credential+ for job applications?

- Extremely interested
- Very interested
- Somewhat interested
- Not so interested
- Not at all interested

GIS Credential+ Survey

GIS Knowledge/Experience

GIS stands for Geographic Information Systems, technologies that include sets of software and hardware for digital mapping. Various industries use GIS, from agriculture to crime analysis, from community planning to environmental protection, from health care to land use zoning, from business location to social work. As long as location is involved, GIS has evolved!.



8. Have you used (or heard about) GIS before?

- Yes, I used GIS before.
- I only heard about GIS, but I never used GIS before.
- No, I have not heard nor used GIS before.

GIS Credential+ Survey

GIS Mapping in industry

Esri, the developer of industry standard mapping and analytics software inspires positive novel uses of GIS across industries. Esri published a list of industry groupings and activities that belong to the group.



9. Based on Esri's groups of industries that use GIS, please check the most applicable industry you plan to work in after your graduation.

BUSINESS: Financial Services, Insurance, Logistics and Distribution, Manufacturing, Real Estate, Retail

EDUCATION: Higher Education, Schools, Lifelong Learning, Open Science, Weather and Climate Science, Ocean Science, Solid Earth Science, Geographic Information Sc...

ENERGY: Energy Utilities, Electric, Gas, Petroleum (Upstream, Midstream, Downstream, HSE, Renewable Energy, Technology and Innovation, Natural Resources, Agricul...

ENVIRONMENT: Architecture, Engineering, Construction, Environmental Management, Water, Water Resources, Water Utilities, Conservation Land Management, Landsc...

GLOBAL DEVELOPMENT: Sustainable Development Goals, Non-profit and NGOs, operational Efficiency, Program Measurement and Impact, Advocacy and Stakeholder...

HEALTH: Human Services, Humans in Crisis, Public Health Preparedness, Health Equity, Access to Health Care and Services, Strategic Planning

GOVERNMENT (local): Economic Development, Emergency Management Operations, Environmental & Natural Resources Agencies, Health and Human Services, Housin...

GOVERNMENT (national): National Government, Aviation, Defense, Earth Sciences, Elections, Humanitarian Assistance, Intelligence, National Mapping, National Mariti...

PUBLIC SAFETY: Corporate Security and Safety, Emergency Communications, Emergency Management, Fire, Rescue, Emergency Medical Services, Homeland Security, ...

GIS Credential+ Survey

GIS Specializations

SLUEC is planning to offer three GIS specializations in applied digital mapping. These are the description of each specialization.

OK

- ☰ GIS Associate Certificate in **Community Health Mapping**. Specially created Credential+ for those who would like to work with community organizations that provide protection of communities through health care, crime prevention, care for the elderly, immigrant assistance, advocates for housing, social work, and disaster management. ⬆️ ⬇️
- ☰ GIS Associate Certificate in **Environment and Resource Mapping**. This Credential+ is designed for those who would like to work in the environment and resource sectors, as environmental planners, foresters, ecologists, conservation officers, agriculturists, and most resource-related jobs that use maps as a tool of the trade. ⬆️ ⬇️
- ☰ GIS Associate Certificate in **Municipal and Regional Mapping**. If working for the government is your dream, this Credential+ gives you an advantage over the competition on positions in different municipal departments such as parks and recreation, by-law enforcement, engineering, small business, or various departments of the regional government. ⬆️ ⬇️

GIS Credential+ Survey

Suggested GIS Specialization

11. If the three GIS specializations (**Community Health Mapping, Environment and Resource Mapping, Municipal and Regional Mapping**) do not appeal to you, please suggest a GIS digital mapping that would be more applicable to your job after you receive your degree.

GIS Credential+ Survey

TIME as barrier

If you do not have enough **TIME** to pursue a GIS Credential+ while also pursuing your degree, then **TIME** might be a barrier for you. If you are willing to extend your stay at UFV, then **TIME** might not be a barrier for you in taking the GIS Credential+.

OK

12. Please evaluate if **TIME** may become a barrier for you to take a GIS Credential+ in the immediate future.

	Time will NOT be a barrier in my situation.	Time MAYBE a barrier in my situation.	Time DEFINITELY will be a barrier in my situation.
Consider if you have enough TIME to pursue a GIS Credential+ while finishing your degree.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consider if you will be willing to devote additional TIME to extend your studies for a semester to finish a GIS Credential+ when you already finish all your courses.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

GIS Credential+ Survey

BUDGET as a barrier

If you do not have the **BUDGET** to register in three courses in addition to your degree courses, then **BUDGET** may be a barrier to taking the GIS Credential+. However, if you have enough room in your student loan, or you have employment, or scholarship grants, then **BUDGET** may not be a barrier to you.

OK

13. Please evaluate if **BUDGET** may become a barrier for you to take a GIS Credential+ in the immediate future.

	Budget will NOT be a barrier in my situation.	Budget MAYBE a barrier in my situation.	Budget DEFINITELY will be a barrier in my situation.
Consider if you will have the BUDGET to register for three courses in addition to the courses required for your degree.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider if you have BUDGET available through student loan, employment, or other means.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GIS Credential+ Survey

TECHNOLOGY as barrier

If you do not have a reliable computer to carry out digital mapping, then **TECHNOLOGY** might be a barrier for you to pursue a GIS Credential+. If remote access or Wi-fi is not reliable where you live, then **TECHNOLOGY** might also be a barrier for you.

OK

GIS Credential+ Survey

PREREQUISITES as barrier

If you have passed 45 university credits, then **PREREQUISITES** may not be a barrier for you to take a GIS Credential+. And if you have enough experience to use in PLAR, the **PREREQUISITES** may not be a barrier for you.

OK

15. Please evaluate if **PREREQUISITES** to GIS Credential+ courses may become a barrier for you to take a GIS Credential+ in the immediate future.

	Prerequisites will NOT be a barrier in my situation.	Prerequisites MAYBE a barrier in my situation.	Prerequisites will DEFINITELY be a barrier in my situation.
Consider if you have at least 45 university credits, the necessary PREREQUISITES to the GIS Credential+ courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider if have previous training in GIS that you can use to PLAR the GIS Credential+ course PREREQUISITES .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GIS Credential+ Survey

EXPERIENTIAL LEARNING as barrier

If you are not comfortable taking co-op, practicum, or internship, then **EXPERIENTIAL LEARNING** may be a barrier to finish the GIS credential. Also, if you are not comfortable to work outside of your neighbourhood, then **EXPERIENTIAL LEARNING** might be a barrier for you.

OK

16. Please evaluate if **EXPERIENTIAL LEARNING** may become a barrier for you to take a GIS Credential+ in the immediate future.

	Experiential learning will NOT be a barrier in my situation.	Experiential learning MAYBE a barrier in my situation.	Experiential learning will DEFINITELY be a barrier in my situation.
Consider if you are comfortable taking EXPERIENTIAL LEARNING in the form of co-op, internship, or practicum, to apply GIS in an industry of your choice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider if you are willing to carry out your EXPERIENTIAL LEARNING in a location other than UfV.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GIS Credential+ Survey

OTHER barriers

There might be **OTHER** barriers for you to start or finish a GIS Credential+ which might be applicable in your personal situation.

OK

17. Are there other factors that may become **BARRIERS** for you to take a GIS Credential+ in the immediate future? Please explain here.

PREV

NEXT

GIS Credential+ Survey

Inquiries

If you want to know more information about the GIS Credential+ such as when it will be available to students, we might need your contact information.

OK

GIS Credential+ Survey

Inquiries

If you want to know more information about the GIS Credential+ such as when it will be available to students, we might need your contact information.

OK

GIS Credential+ Survey

Gift card

If you'd like to be entered into a draw to win a gift card, please give us your contact details below.

OK

19. Please provide your **email address** here so we can contact you if you win.

PREV

NEXT

GIS Credential+ Survey

Thank you!

We really appreciate the time and effort you invested to complete the survey. Your insights will help us develop an effective GIS Credential+ to help you in your job applications.

OK

PREV

DONE



GIS Credential+ Survey

Thank you for completing our survey!

DONE

RESPONDENTS ATTRIBUTES

GENDER

When respondents were asked which gender they identify with, there were more female respondents than male respondents as shown in *Figure 6*.

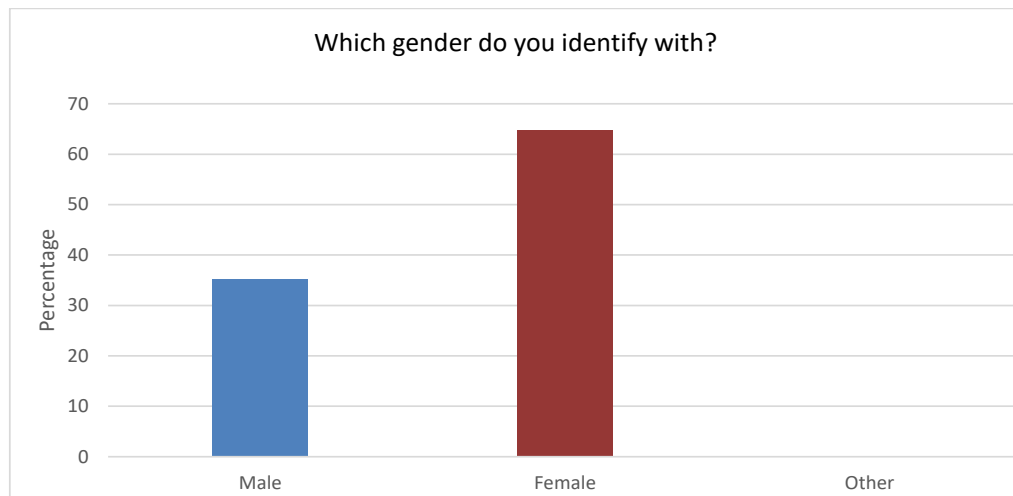


Figure 6. Gender identification of respondents

PROGRAM

The respondents were asked about the program they belong to and results in *Figure 7* shows that almost all of the degree programs at UFV are represented in the survey.

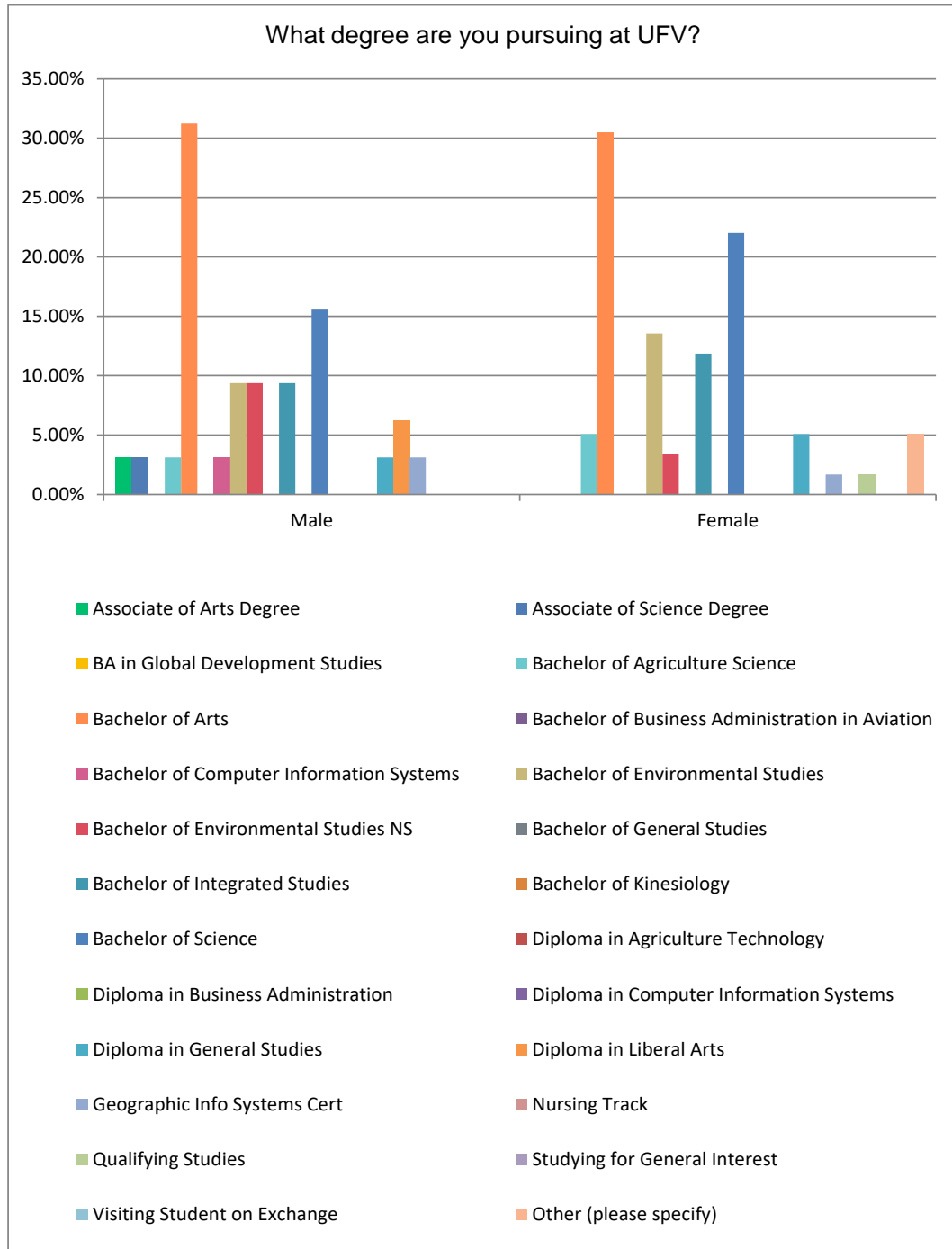


Figure 7. Representation of different degree programs at UFV

YEAR LEVEL

When asked when they were expected to graduate, at the time of the survey, the respondents reveal that most of them were in their senior year or about to graduate as shown in *Figure 8*.

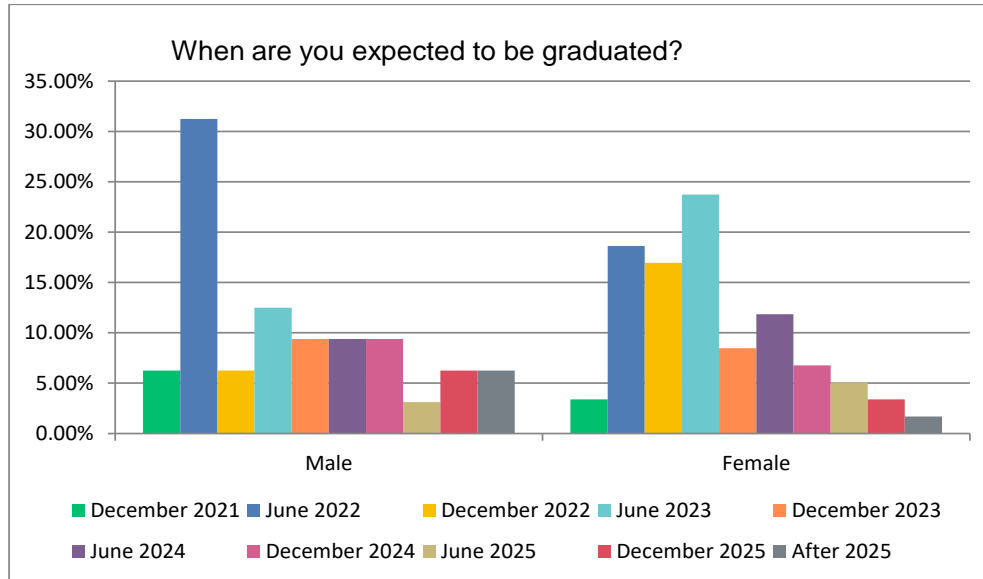


Figure 8. Expected graduation from UFV

AGE OF RESPONDENTS

The average male respondents were older than the average female respondents although overall the average range is between 20 and 25 years as shown in *Figure 9*.

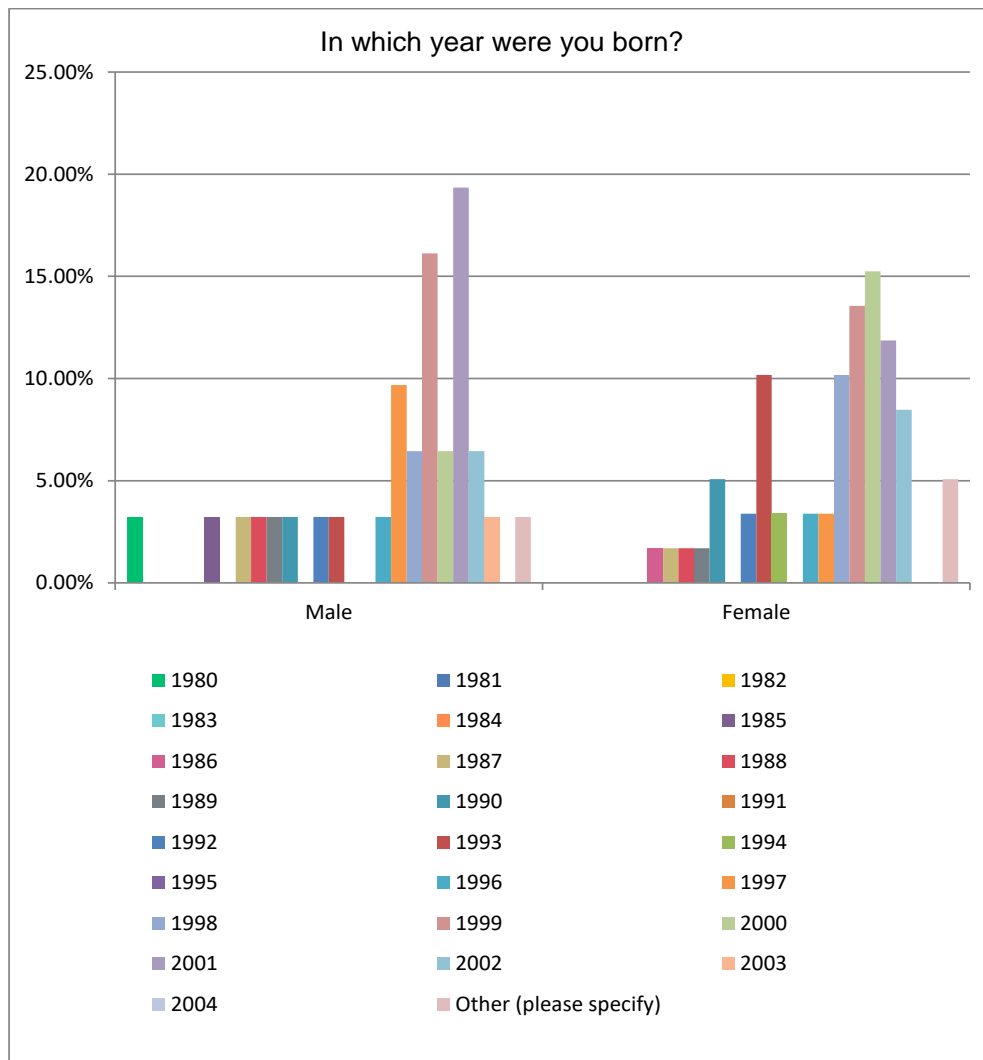


Figure 9. The year of birth of respondents

DIVERSITY

The diversity of respondents of respondents is shown in Figure 10. Most respondents do not identify themselves as belonging to visible minority nor Indigenous, nor LGBTQ, in both the male and female respondents. In both genders, the visible minorities, LGBTQ, and foreign students are represented, but there was no representation of male respondents identifying themselves as Indigenous.

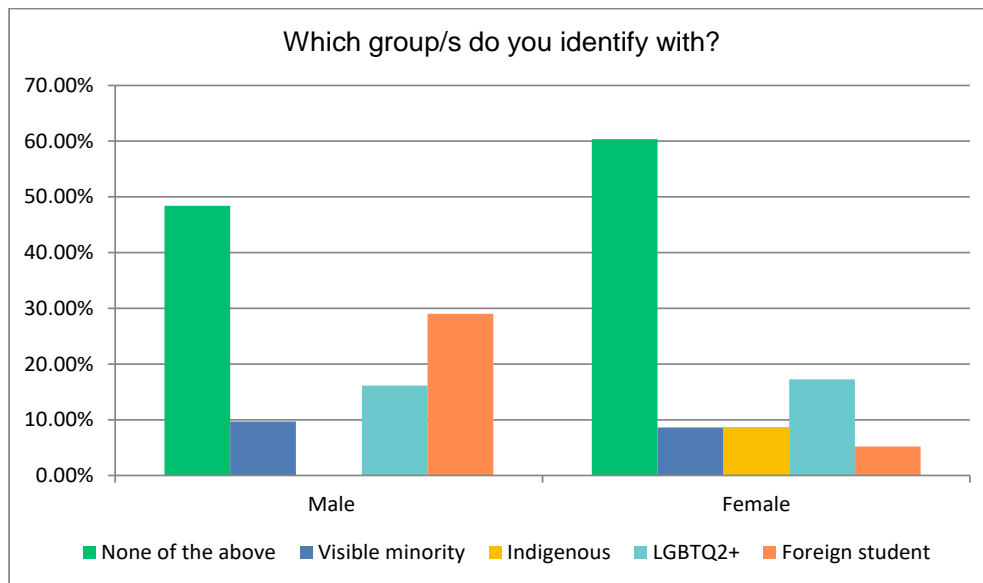


Figure 10. Self identification of respondents to minority groups

SUMMARY OF RESPONDENT ATTRIBUTES

The survey was broad enough that almost all degree programs at UFV were equally represented by male and female student respondents. However, diversity in terms of belonging to the LGBTQ, Visible Minority, or Indigenous groups is lacking which means the more focused promotion of the program to these groups. Although there were more female than male respondents, the general characteristics of each gender were similar. For example, the both male and female students respondents were between 20 and 25 years of age and are in their senior year at UFV, or about to graduate. This is important as the -credential is being marketed to students who are at this stage in their studies at UFV.

INTEREST IN GIS MICRO CREDENTIAL+

CAREER MAPPING TOOL

UFV has provided the students with a powerful tool to improve on their job search skills and the survey wanted to see if the respondents have used the tool to see whether the respondents had previous introduction to the importance of a credential plus. Results as shown in *Figure 11* reveal that majority of the male as well as the female respondents have not used the Career Mapping Tool and they have not heard about the tool.

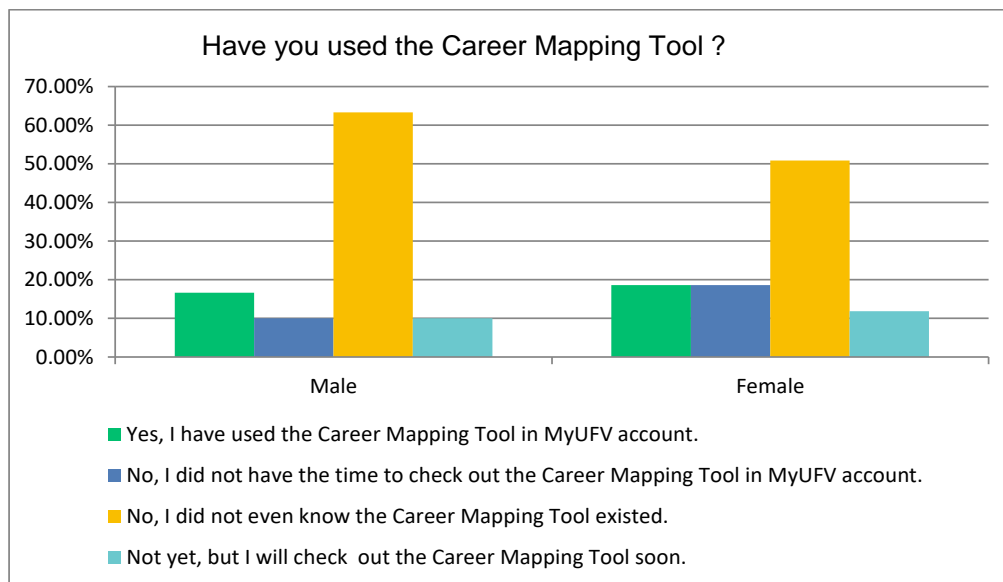


Figure 11. Respondents' use of UFV's Career Mapping Tool

INTEREST IN A GIS CREDENTIAL +

When the GIS Credential + was explained in the survey before the respondents were asked about their interest in a GIS Credential+, majority of male and female respondents were interested with the male respondents having more very to extremely interested. This means that once the GIS Credential + and its benefits are explained, the respondents agreed with the goal of the GIS Credential + and became very interested as shown in *Figure 12*.

When the responses to the interest in a GIS Credential+ were grouped based on the use of the Career Tool, the relationship between the use of the career mapping tool and their interest in a GIS Credential+ became evident (see Figure 13). Those who showed interest may or may not have used the Career Mapping Tool, but those who were not interested reported that they have not used or have not even know that the tool existed. This points to the possibility that when the students used the Career Mapping Tool, they already understood the importance of an additional credential like the one being proposed.

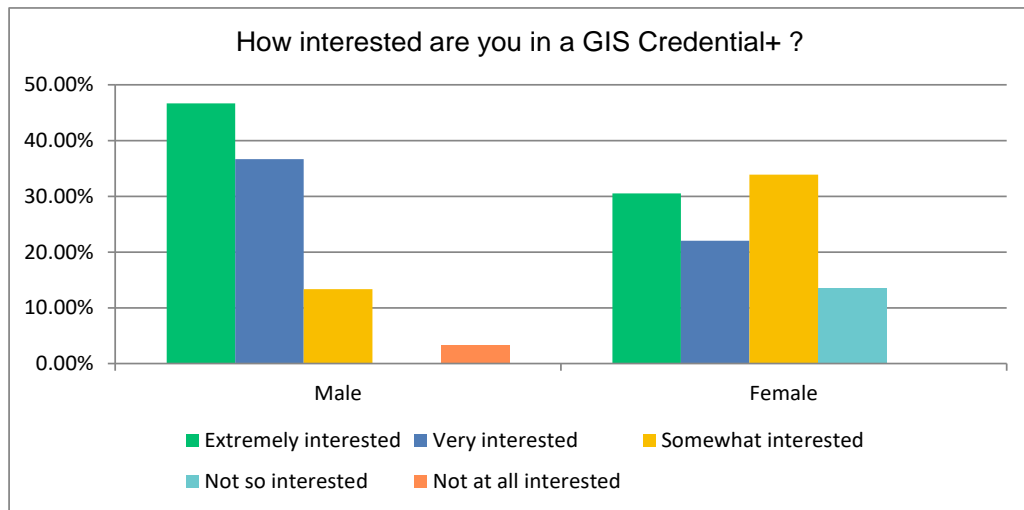


Figure 12. Interest in a GIS Credential+ of respondents

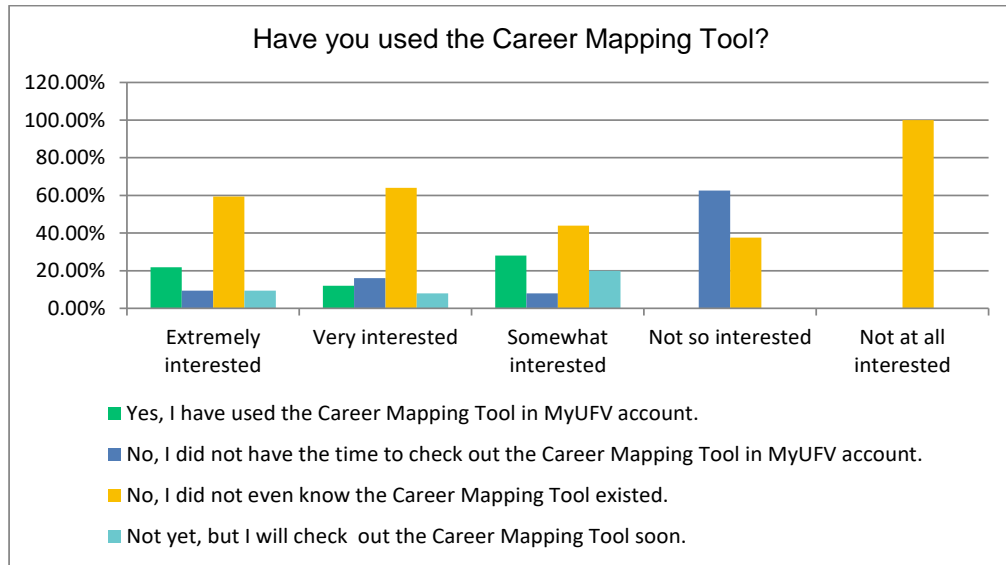


Figure 13. Use of the Career Mapping Tool and Interest in the GIS Credential+

PERSONAL KNOWLEDGE OF GIS

The respondents were asked about GIS to determine their knowledge of GIS, approximately half of the respondents revealed that they have used GIS before and almost another half have heard of GIS, as shown in Figure 14.

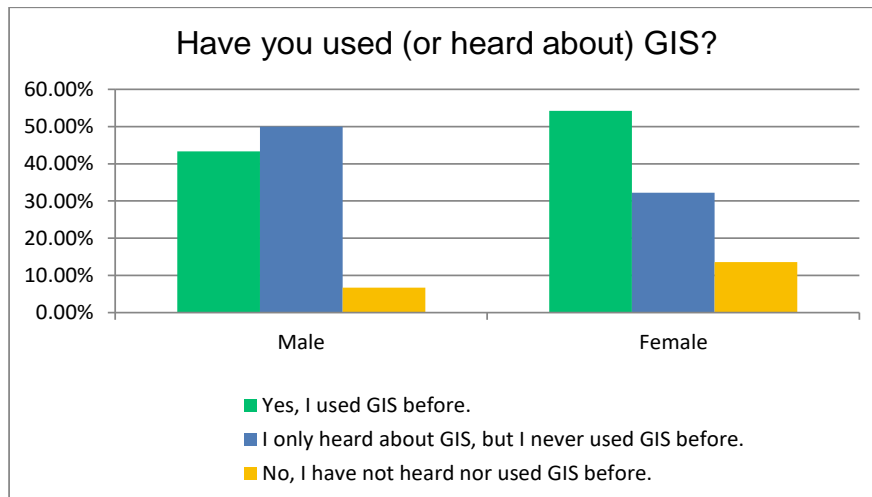


Figure 14. Personal knowledge of GIS

TARGET INDUSTRIES FOR WORK

The respondents were asked which industry they may target for future employment based on the industry classification and grouping of Esri. Results (see *Figure 15*) reveal that for both male and female respondents, most would like to work in ENVIRONMENT-related work. For male respondents, the next choice was GOVERNMENT-related work while for the female respondents, EDUCATION-related work was the second choice.

The HEALTH-related industry was missing in both the male and female respondents, and this may be since the sampled population was only students in the Abbotsford Campus, but health sciences students are mainly taking courses in the Chilliwack campus.

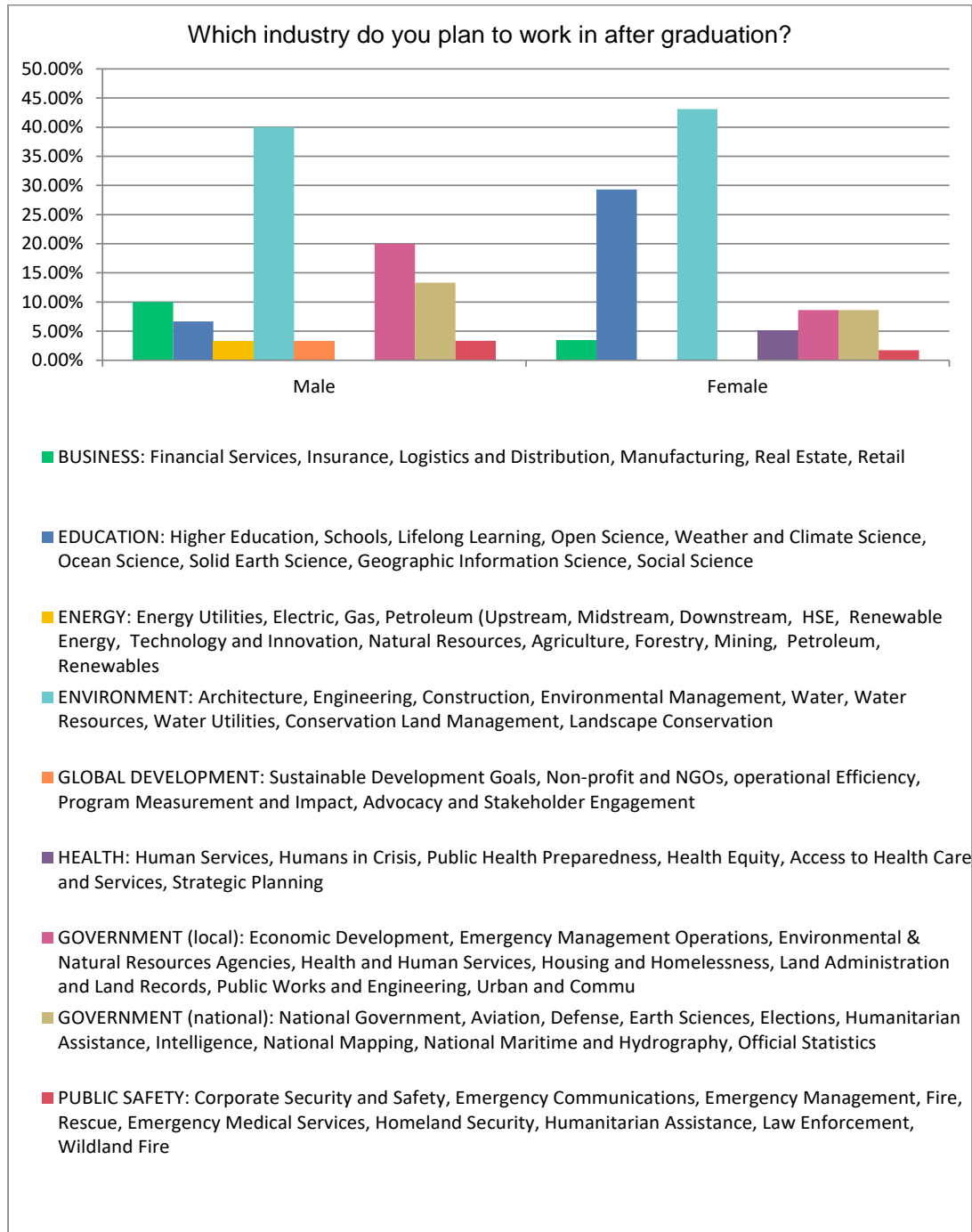


Figure 15. Industries targeted by respondents as future employer

CONCENTRATIONS IN THE APPLIED DIGITAL MAPPING

The respondents were asked to score three concentrations that may be offered as options for the credential, the three options based on the average score of the respondents appear from top to bottom as shown in *Figure 16*.



Figure 16. Concentrations in the Applied Digital Mapping Credential

SUMMARY OF STUDENT INTEREST IN A GIS-CREDENTIAL+

The Career Mapping Tool available to all students at UFV is a very powerful tool to improve job search and from which the idea, definition, and significance of a Credential+ was lifted from. Unfortunately, the survey revealed that that majority of the male as well as the female respondents have not used the Career Mapping Tool, and some have not even heard about the tool.

Results reveal that both male and female respondents became extremely interested in the GIS Credential+ after the idea of a Credential + was explained to them first. This means that more students may become interested in Credential+ if the Career mapping Tool is promoted.

Although general interest in the Credential+ is great in backing up the credential, as an associate certificate, the courses should be tailor-made for an application in a specific industry.

The industry classification and grouping of Esri was presented to the respondents and they were asked which industry they would like to work for. Environment-related work was chosen by most male and female respondents, followed by government-related work for male respondents and education-related work for female respondents.

To complement the current programs at SLUEC, three specializations/concentrations were planned to jump-start the credential. Based on the equal proportion of student respondents choosing each specialization, any, two, or all the specializations can be offered in any order or any combination.

BARRIERS TO ACCESS

One of the main goals of a Gender-based analysis+ is to find barriers to access and find solutions. The following barriers were evaluated based on the student responses.

TIME

Figure 17 shows that the male and female respondents believe that time may become a barrier for them to be able to add to their GIS Credential+ courses to their programs and that they may not have time to be able to take courses beyond the required ones. And time as a barrier even extends to after finishing their degrees as revealed in *Figure 18*.

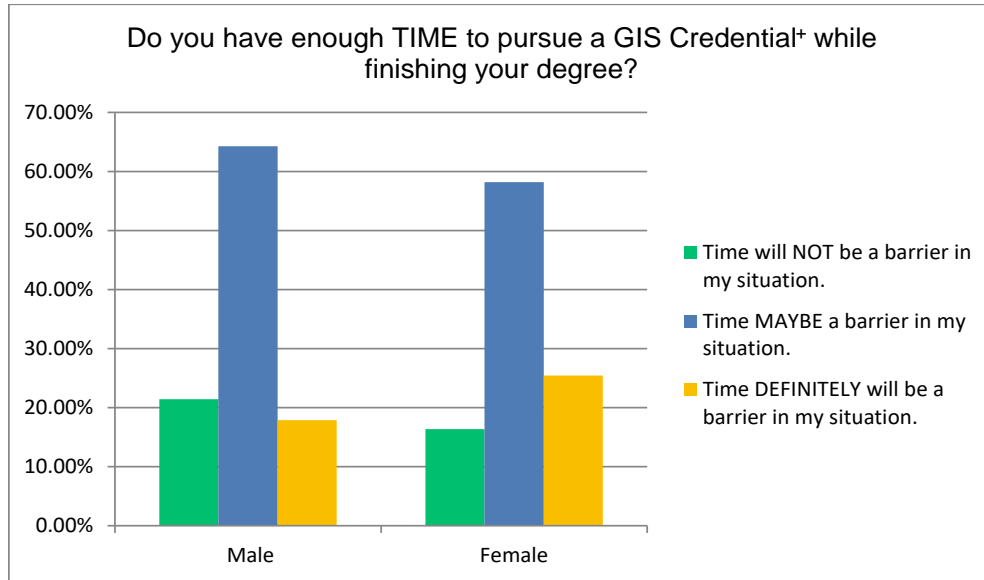


Figure 17. Time as a barrier to pursuing a GIS Credential+ while pursuing a UFV program.

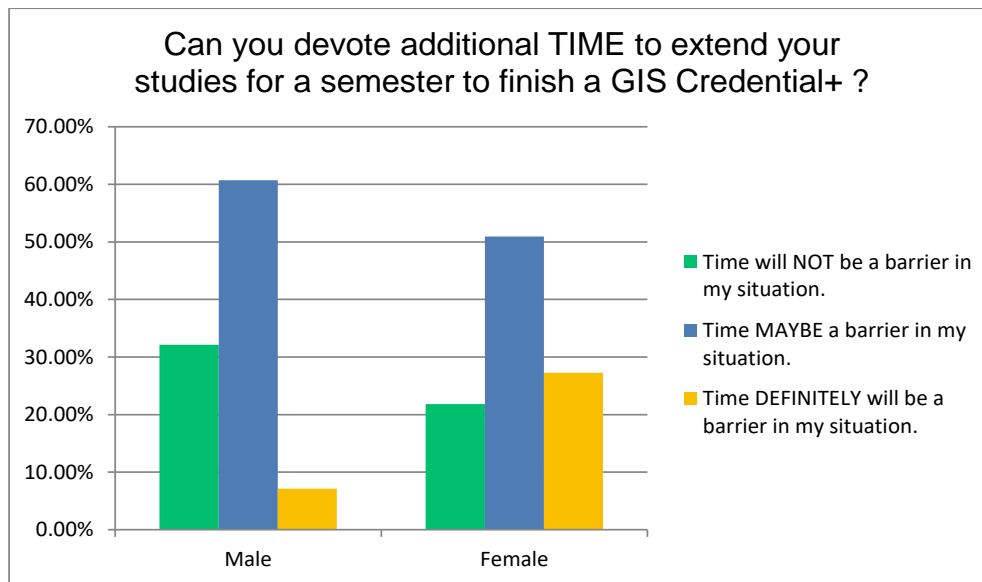


Figure 18. Time as a barrier to pursuing a GIS Credential+ after graduation.

BUDGET

Budget is always a concern for students to take on more courses and *Figure 19* shows that male and female respondents believe that budget may become a barrier in pursuing a GIS Credential+

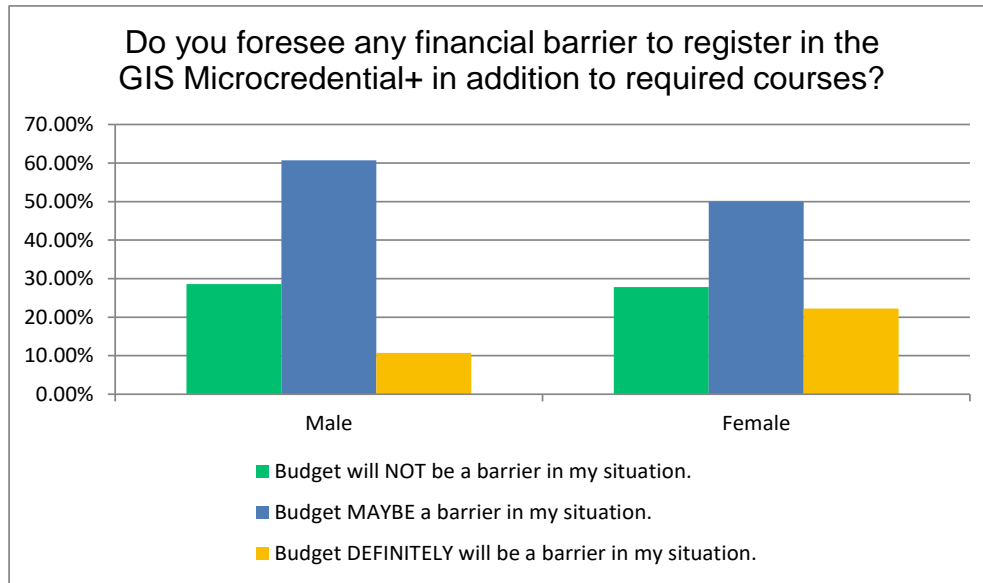


Figure 19. Financial barrier to the GIS credential

TECHNOLOGY

Literature abounds showing that lack of decent computer or the lack of knowledge in computer operations become a barrier for persons taking a new technology program like GIS. *Figure 20* shows that for both male and female respondents believe that personal hardware and a new software will not be a barrier to their taking a GIS Credential+.

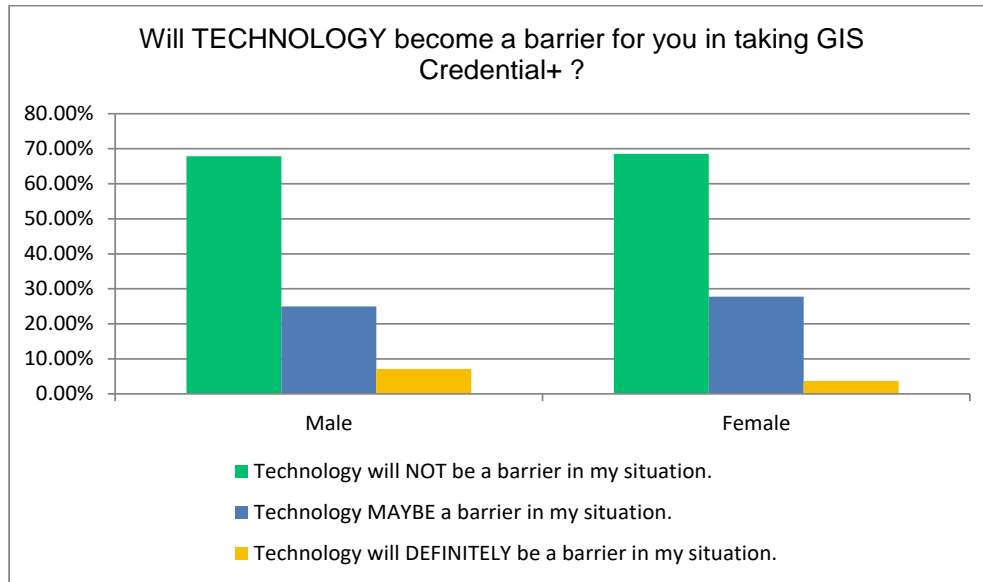


Figure 20. Technology will not be a barrier for respondents to take a GIS Credential+

PREREQUISITES

The pre-requisite of the GIS Credential+ as an applied GIS course is “at least 45 university credits”. Because most of the respondents were in their final year at UFV, the result of the survey shows that the pre-requisites will not be an issue for both the male and female respondents to take the GIS Credential+ (see Figure 21). Even when the respondents were informed that they can use PLAR for the prerequisite, the results were still like the non-PLAR pre-requisites as shown in Figure 22. However, with PLAR as the prerequisite, the proportion of respondents indicating that the prerequisites will be more a problem, increased. This indicates that the respondents did not believe that they have prior learning experience that can be used in the PLAR process.

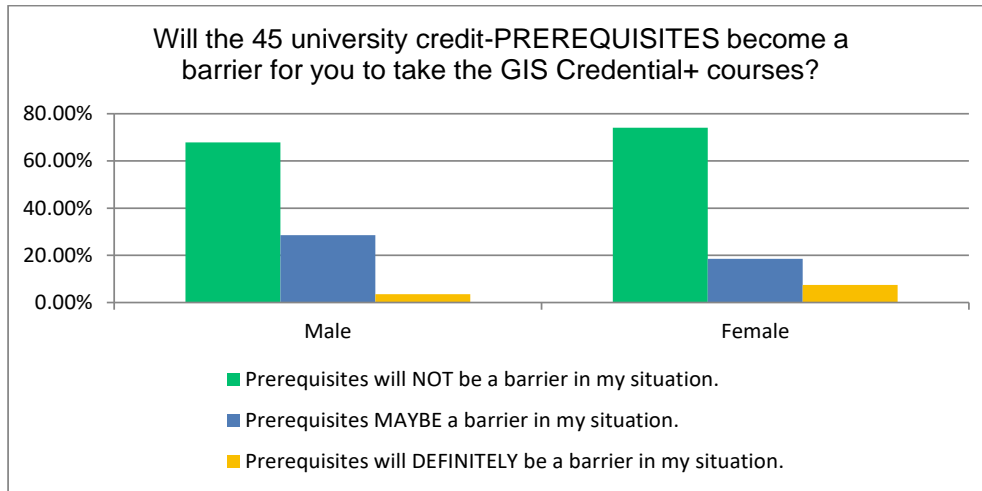


Figure 21. Prerequisites of at least 45 credits will not be a barrier in taking a GIS Credential+

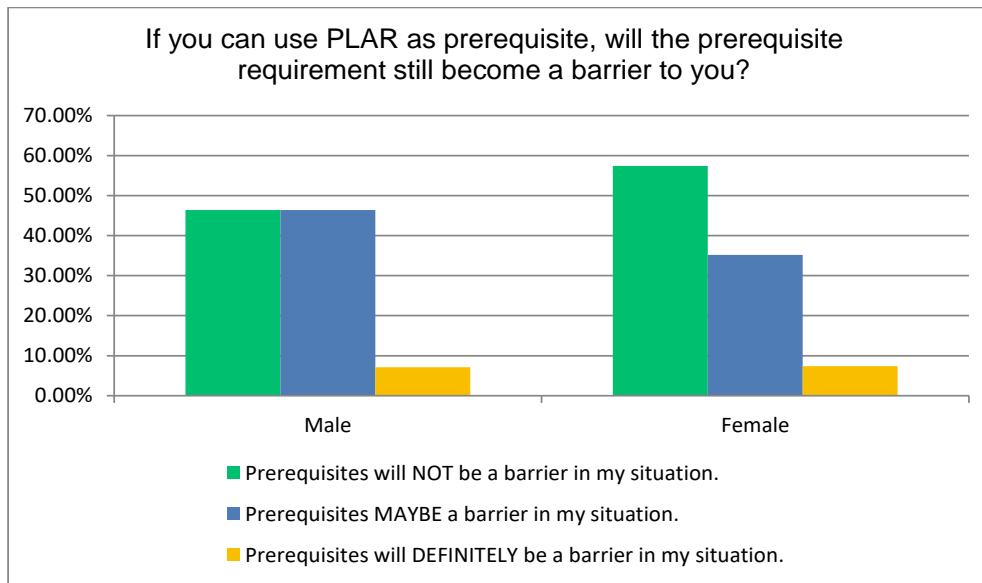


Figure 22. Prerequisites taken as PLAR will not be a barrier in taking a GIS Credential+

EXPERIENTIAL LEARNING

The GIS credential+ was envisioned to have opportunities for application of their GIS skills in the industry they intend to join. A survey question was created to find out if a requirement for experiential learning will become a barrier for the respondents. *Figure 23* shows that requirement for experiential learning in the form of co-op, internship, or practicum, did not pose any barrier.

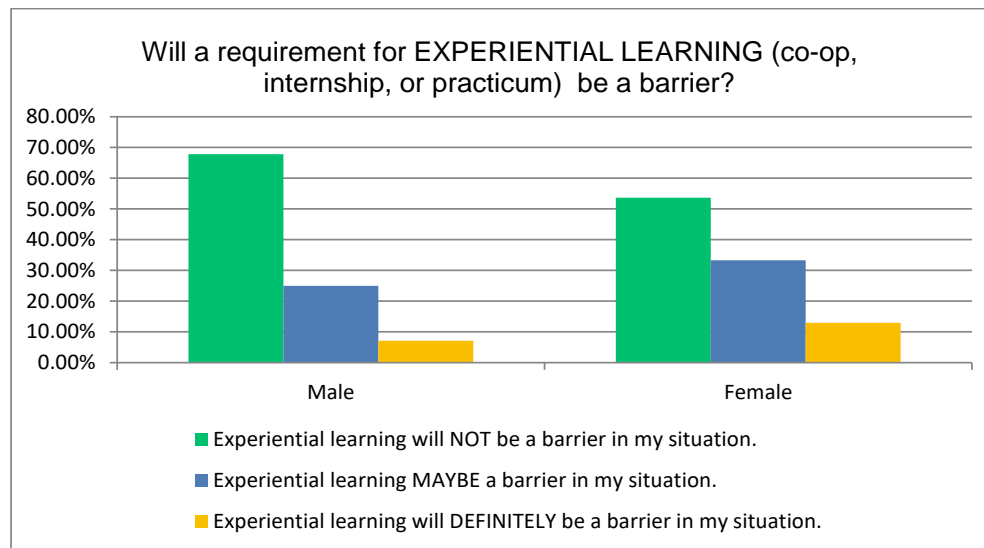


Figure 23. Requirement for experiential learning as a barrier to taking a GIS Credential+

SUMMARY OF BARRIERS TO GIS-CREDENTIAL+ ACCESS

A list of barriers to access were developed from a pilot survey and the respondents were asked whether the identified barrier to access will be applicable in their individual situation.

There is a common belief that technology is a barrier to technology courses such as GIS, especially for female students. However, results of the survey reveal that in terms of a decent computer and knowledge in computer software, two-thirds of the respondents believe that technology will not be a barrier to taking the GIS Credential+. An equal number of respondents also believed that experiential learning in the form of co-op, internship, or practicum as their Capstone course will not be a barrier in obtaining a GIS credential+.

The pre-requisite of the GIS Credential+ as an applied GIS course is “at least 45 university credits”. Because most of the respondents were in their final year at UFV, the result of the survey shows that the pre-requisites will not be an issue for both the male and female respondents to take the GIS Credential+.

Completing the credential will take up considerable resources in terms of added time and financial resources. Results reveal around 80% of the male respondents and female respondents believed that the additional time as well as additional financial resources will be barriers to completing a - credential. This means that the program should endeavour to find financial subsidies and scheduling smarter may be required.

Appendix B: Comparable Programs in BC

Institutions of higher learning in BC listed in the [Education Planner BC](#) as offering GIS credentials. The credential is compared with the originally proposed GIS associate certificates.

INSTITUTION	CREDENTIAL	COMPARISON WITH PROPOSAL
BCIT	GIS: Advanced Certificate	<ul style="list-style-type: none"> requires the completion of 24 credits and is between the 12-14 for the proposed GIS associate certificates and the 31 credits of the UFV GIS Certificate length of completion is up to 7 years and is offered through distance and online learning. marketed to professionals who might use GIS in their work, or to international students
BCIT	GIS: Advanced Diploma	<ul style="list-style-type: none"> a general GIS program that requires the completion of 66 credits, and it has the options of full time or part time. The number of credits is much higher than the proposed 12-14 credits for the GIS associate certificates. full time option requires 9 months of attendance and fully in-person delivery part time option can be completed in 2-4 years students accepted into the program have university or college background, and/or previous work experience. (This is in stark contrast to UFV students who are still pursuing their degrees at UFV, and many do not have the experience working in the field.)
BCIT	GIS: Bachelor of Technology	<ul style="list-style-type: none"> requires 83 credits is a general GIS program can be completed within 1.5 for accelerated options or up to 7 years. This Bachelor’s degree is only included here for completeness, but this cannot be compared with the proposed GIS associate certificates
Selkirk College	GIS Advanced Diploma and Bachelor’s Degree in GIS	<ul style="list-style-type: none"> program requires 47 credits for a general GIS program these courses ladder into the first year for the Bachelor’s in GIS Completion takes one year full time Compared to the proposed GIS associate certificate, the total number of credits is not close The final 2 years of the four-year program.

Simon Fraser University	GIS Certificate	<ul style="list-style-type: none"> • a general GIS program • requires 3 courses of 3 credits each and 3 courses of 4 credits that students can choose from a list of GIS and GIS-related courses. • The total of 21 exceeds the 12-14 in the proposed GIS associate certificates • The similarity is that of requiring core courses and electives can be chosen from a list.
University of the Fraser Valley	GIS Certificate	<ul style="list-style-type: none"> • The UFV GIS Certificate requires 31 credits to complete. • This is a general GIS program that should take 2 years to complete but because of low enrolment, course schedules have not been regular
Vancouver Island University	Advanced Diploma in GIS Applications	<ul style="list-style-type: none"> • taken in face-to-face class is 8-months long & the online version is a 16-month program • more like the UFV GIS , only 1 credit difference • the GIS Project is like the one proposed as a capstone for the GIS associate certificates.
Okanagan College	Advanced GIS Certificate	<p><i>This advanced GIS Certificate is not yet listed in the Education Planner BC as it is still to be offered in Winter 2022</i></p> <ul style="list-style-type: none"> • the program is based on the number of hours (500 total) and each course has a different number of hours to complete. • is a general GIS program • requires students to finish two GIS projects and an additional "Directed project". This is very similar to the proposed GIS associate certificate because the two applied GIS courses will have their own GIS projects while the capstone GIS project in industry is like a directed project.

<p>University of California Davis</p>	<p>GIS Specializations</p>	<p><i>Although this program is not offered in BC, it was included to show what the GIS Specializations are and its similarities and differences with the proposed GIS associate certificates Include the following:</i></p> <ul style="list-style-type: none"> • the applied learning environment is one of the characteristics of this GIS specialization that is like that envisioned for the proposed GIS associate certificates • hands-on project is another similarity with the proposed GIS associate certificates • when five courses are finished, including the hands-on project as a capstone, then a certificate is issued. For the GIS associate certificate, only three courses, including the GIS project are required.
<p>University of Toronto</p>	<p>GIS for Environmental Management</p>	<p><i>This program is offered outside of BC, but it is included here show a certificate that is for a specific purpose (specialization).</i></p> <ul style="list-style-type: none"> • The certificate requires two core courses, and two courses can be chosen from a list, just like the requirements for the proposed for the GIS associate certificates, although we are proposing a capstone industry project rather than two courses. • The GIS specialization in the program is prescribed – it will be a hands-on real case study that applies GIS techniques to determine whether brown lands in Toronto were suitable for reclamation and residential development. This level of specificity will be matched by the theme of the GIS project in the proposed GIS associate certificates.

Appendix C: Labour Market Information

List of employers of graduates with GIS skills provided by the *Office of the Work Integrated Learning Coordinator (Science and Environment) of the Centre for Experiential and Career Education (May 2021)*

Job Posting	Employer	City
GIS Technician	Baragar Systems	South Surrey
GIS	BC Hydro	Burnaby
GIS Technician	BC Ministry of Agriculture	Abbotsford
GIS Technician	BC Ministry of Agriculture	Abbotsford
Agriculture Land Use Inventory GIS	BC Ministry of Agriculture	Abbotsford
Geospatial Technician	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Fort Nelson
Junior Geospatial Technician	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Fort Nelson, Dawson Creek,
GIS Co-op Student	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Terrace
Natural Resources, Planning and GIS	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Terrace
District Junior Regional Technologist	BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development	Dawson
Co-op student Community Planning GIS	City of Abbotsford	Abbotsford
Student Geomatics	City of Abbotsford	Abbotsford
Geomatics	City of Abbotsford	Abbotsford
Co-op student GIS	City of Campbell River	Campbell river
GIS Co-op Student	City of Chilliwack	Chilliwack
GIS Developer	Communications Security Establishment	Ottawa
Environmental Affaires student	Cowichan Valley Regional District	Duncan
Cowichan Valley Regional District	Cowichan Valley Regional District	Duncan
GIS Technician	Department of National Defence	Chilliwack

GIS Co-op Surrey	Fortis BC	Surrey
EA Planning Development	Fraser Valley Regional District	Chilliwack
Strategic Planning Initiatives	Fraser Valley Regional District	Chilliwack
GIS Program	Hydro One Networks Inc.	Toronto
GIS Summer Student	Lake Country	Lake Country
Environmental Affaires student	Syncrude Canada	Fort McMurray
GIS Summer Student	Urban Systems	Kamloops

Appendix D: Institutional and Program Learning Outcomes Map

Linkages between UFV’s **Institutional Learning Outcomes** and program learning outcomes:

<p>Applied GIS Associate Certificates Learning Outcomes</p> <p>Upon completion of this program, graduates will be able to:</p>	<p>UFV’s Institutional Learning Outcomes</p>
<p>PLO1: Navigate with competence the interfaces of industry-standard (ArcGIS) and open-source (QGIS) GIS software to display raster images and vector data and perform common GIS analytical operations such as buffering, spatial overlays, proximity analyses, geocoding, and spatial statistics, to offer creative solutions to problems in the specific industry related to the GIS specialization.</p>	<p><i>This PLO is in alignment with ILO4 (Initiate inquiries and develop solutions to problems) and ILO1 (Demonstrate information competency) as they will help solve an existing problem in the community or industry with their efficient use of open-source or industry standard GIS.</i></p>
<p>PLO2: Ethically acquire primary field data using GPS, other technologies, and field measuring instruments, to access, extract, import, export, and share spatial data stored in various sources, and to perform basic pre-processing, data file conversions, and data cleaning on secondary spatial data used in the specific industry related to the GIS specialization.</p>	<p><i>This PLO aligns perfectly with ILO8 (Engage in respectful and professional practices) and ILO1 (Demonstrate information competency) because the graduates have learned through experience how to gather and use the data and information ethically following legal rules and confidential etiquette.</i></p>
<p>PLO3: Construct GIS databases using spatial data in digital and other formats and perform tabular analysis on the data used by non-governmental organizations in their delivery and monitoring of community services by creating new attributes by joining and relating tables in the specific industry related to the GIS specialization.</p>	<p><i>This PLO aligns with ILO3 (Use knowledge and skills proficiently) and ILO4 (Initiate inquiries and develop solutions to problems) as the students find the most efficient ways of constructing models for the data they gathered.</i></p>
<p>PLO4: Design and generate effective series of maps that clearly demonstrate the GIS analyses carried out, using standard symbology used by non-governmental organizations, and where correct coordinate transformations, projections and datum changes to spatial data have been applied in the specific industry related to the GIS specialization.</p>	<p><i>This PLO aligns perfectly with ILO2 (Analyze critically and imaginatively) and ILO3 (Use knowledge and skills proficiently) as students used their creativity, imagination, and critical thinking in making the most</i></p>

	<i>appropriate map that conveys the result of their analysis most effectively.</i>
<p>PLO5: Successfully perform all the required steps for a successful GIS project, from planning, through collaborative completion, and eventually to the respectful communication of the results and the student’s self-reflective learning to stakeholders in the specific industry related to the GIS specialization through presentations, technical reports, and other types of mass communication.</p>	<p><i>This PLO aligns perfectly with ILO5 (Communicate effectively), ILO7 (Engage in collaborative leadership), ILO6 (Pursue self-motivated and self-reflective learning) and ILO9 (Contribute regionally and globally) since the graduates were still students applying for GIS projects to work in, through the project activities, and eventually in the communication of their GIS work.</i></p>
<p>The PLOs, together, address all the ILOs indicating that graduates from the Applied GIS associate certificate will have the knowledge, skills, and virtues that all UFV graduates can demonstrate.</p>	

Appendix E: Calendar Copy

1. **Faculty and department of program:** Faculty of Science/ Department of Planning, Geography, and Environmental Studies
2. **Website:** <https://www.ufv.ca/land-and-environment/programs/geographic-information-systems/>
3. **Program title/credential:** Applied GIS associate certificate
4. **Associated degree program:** BA, BAS, BBA, BE, BES/BES-NS, BFA, BGDS, BIS, BKin, BSc, BSW
5. **Program introduction/calendar description** (*brief description, usually 1-3 paragraphs*)

Improved opportunities for higher-level positions in community services, environment, and resource industries, and municipal or regional government, by adding the *Applied GIS associate certificate* to your degree or diploma.

The required 10-14 credits to complete the Applied GIS associate certificate will consist of three applied GIS courses, where you will learn essential concepts of GIS and related geospatial technologies and gain hands-on digital mapping experience. Substitute an applied GIS course with a capstone GIS project course completed in various experiential learning pathways such as co-op, internships, or a GIS Project course, where you will create a professional-quality GIS portfolio focused on a particular industry's data needs, workflow, geoprocessing, and digital mapping, demonstrating to the industry of your choice that your GIS skills are relevant in that industry

The *Applied GIS associate certificate* can be completed in several degree or diploma programs. Please refer to the appropriate degree or diploma program for information on additional requirements. Students are encouraged to consult an Academic Advisor early to ensure timely completion.

6. **Entrance requirements**
Completion of GEOG 355, GEOG/BIO 357, GEOG 358 or GEOG 359, or completion of a 3- or 4-year degree or 2-year diploma or associate degree from a recognized post-secondary institution.
7. **When to apply** (*either specific intake or continuous application, if applicable*)
The program follows a continuous application model.
8. **How to apply**
Apply online at ufv.ca/admissions/apply.
Interested applicants can contact PGES@ufv.ca.
9. **Basis for admission decision** (*specify either competitive or non-competitive admission*)

Applicants who meet the entrance requirements will be admitted in order of their application date. This date is set when an application, all required documentation, and the application fee have been submitted.

10. Fees and additional costs

See the Fees and Other Costs section.

11. Program duration and total number of credits

The *Applied GIS associate certificate* requires a minimum of 10 credits. Students are encouraged to consult an Academic Advisor early to ensure timely completion.

12. Location (if applicable)

Abbotsford Campus

13. Declaration requirements

Students are encouraged to formally apply to the *Applied GIS associate certificate* program as early as possible in their university studies to facilitate advising, access to courses, and timely completion of their degrees and the associate certificate.

14. Program outline (*courses to be completed*)

Course	Title	Credits
Three of:		10-14
GEOG 355	GIS for Built Environment	
GEOG 357/BIO 357	Conservation GIS	
GEOG 358	Forensic Geographic Information Systems	
GEOG 359	Geographic Information Systems for Business	
Capstone course	GIS project in one of COOP 110, GEOG 396, GEOG 398, GEOG 400, GEOG 412, GEOG 484, or GEOG 492 (see Note)	

Note: Students wishing to use a capstone course toward program requirements must obtain approval from the Planning, Geography, and Environmental Studies department head. The capstone course must include a minimum 80% applied GIS component.

15. Specializations or options of the program (*if applicable*)

- not applicable

16. Program regulations (*standard policies apply unless superseded by program-specific regulations*)

At least 25% of the credits used towards program completion must be completed at UFV.

Appendix F: Full Course Outlines

Links to the existing course options in the GIS associate certificate:

[BIO 357 / GEOG 357 - Conservation GIS](#)

[GEOG 358 – Forensic GIS](#)

[GEOG 396 – Canada Internship](#)

[GEOG 398 – International Internship](#)

[GEOG 400 – Advanced Research Topics in Geography](#)

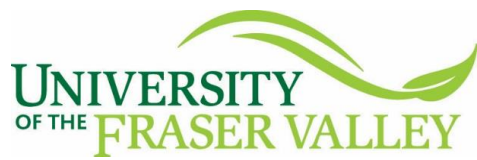
[GEOG 412 – Environmental Geography Practicum](#)

[GEOG 484 – Directed Studies](#)

[GEOG 492 – Honours Research Project](#)

[COOP 110 – Co-op Work Term Performance and Report 1](#)

Proposed courses GEOG 355 (GIS for Built Environment) and GEOG 359 (Geographic Information Systems (GIS) for Business) accompany the Applied GIS associate certificate proposal. Proposed course outlines for these two courses are separate documents accompanying this program proposal.



NON-DEGREE PROGRAM PROPOSAL

Applied Geographic Information Systems (GIS) associate certificate

UNIVERSITY OF THE FRASER VALLEY

Department of Planning, Geography, and Environmental Studies

Faculty of Science

Submitted to: Faculty of Science Curriculum Committee

Date: January 12, 2024

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Institution, Program and Credential Identification

Name of Institution:

University of the Fraser Valley

Faculty/College:

Faculty of Science

Credential to be awarded:

Applied Geographic Information Systems associate certificate

Number of credits

10-14 credits

Program length:

The Applied GIS associate certificate will typically be completed concurrently within a four-year degree or two-year diploma.

Proposed start date:

September 2024

Rationale for the credential:

The *Applied GIS associate certificate* will provide a definite advantage to UFV graduates who seek employment in industries with high-paying jobs, where GIS is a regular part of the job and where GIS-ready applicants are most desired. GIS complements any industry that uses location data, GIS skills are readily transferrable, and those who graduate with general GIS credentials will be able to use GIS as a tool in any field they would like to work in. With the proposed credential, UFV graduates can provide proof on-the-job training, hands-on GIS experience, and most important is the learning focused to the use of GIS in a particular industry. The three-course credential will attract students who are in their final years of completing their degrees or diplomas who wish to gain GIS skills that are immediately applicable to an industry they identified as their future career, but are not seeking a credential which is the size of the 31-credit UFV *GIS Certificate*. The proposed credential provides UFV graduates access to relevant post-secondary education that also benefits local industries. The applied GIS courses to be required in the proposed credential do not have prerequisites since these are stand-alone applied GIS courses, so the credential can be completed in less than 12 months. Student surveys revealed strong demand for the *Applied GIS associate certificate*, supported by testimonials from students who found employment using the GIS skills they have acquired in one or two applied GIS courses at UFV, and who were willing to take one more GIS course to obtain an

Applied GIS associate certificate. The proposed credential is fully supported by consulted external and internal stakeholders.

Chair, Program Working Group: Dr. Mariano Mapili	Title: Associate Professor, Department of Planning, Geography and Environmental Studies
Phone: 604.504.7441 x 4749	Email: mariano.mapili@ufv.ca
Dean: Dr. Michael Hitch	Email: michael.hitch@ufv.ca

Institutional contact person:¹

Not Applicable

¹ Applies only for programs submitted for external peer review through online Post-Secondary Institution Proposal System/PSIPS.

Executive Summary

A 3-course 10-14-credit *Applied GIS associate certificate* that can be completed concurrently with a four-year degree or two-year diploma is being proposed by the Faculty of Science with a proposed start date of September 2024. The *Applied GIS associate certificate* can be used to add value to a UFV student's degree or diploma.

The rationale for the proposal includes: (1) The *Applied GIS associate certificate* benefits UFV graduates since it promotes the goal of accessible, high quality post-secondary education and skills training that lead to good paying jobs. (2) The *Applied GIS associate certificate* supports local industries since GIS complements any industry that uses location data, GIS skills are readily transferrable, and local industries are assured that they are hiring UFV graduates that possess GIS-ready skills for a particular industry. (3) The *Applied GIS associate certificate* helps realize economic and social benefits to communities in the Fraser Valley when workers are employed in high paying jobs, when GIS workers become specialists, and paves avenues for smoother transition and rapid upskilling of their GIS professionals.

The primary goal of the *Applied GIS associate certificate* is to increase access to GIS training at UFV for students in all applicable four-year degree programs that can improve student success in securing better-paying jobs. As the *Applied GIS associate certificate* makes use of existing applied GIS courses, the program seeks to (1) Deliver a hands-on GIS training focused on the skills required of an entry-level mapping technician in a specific industry. (2) Introduce learners to problem-based, competency-based methods of GIS learning to complement other ways of knowing. (3) Provide the experiential learning environment to manage GIS projects from conception to project delivery, accompanied with soft skills focused on the specific needs of a specific industry in the Fraser Valley.

The *Applied GIS associate certificate* helps meet UFV's [Integrated Strategic Plan](#) by: (1) complementing the learning of students from their four-year degree programs with an applied, skills-based, ready-to-use GIS credential applicable to industry of their choices, in the Fraser Valley; (2) making available diverse pathways of scholarship, engaging learners, and building community by drawing on existing GIS courses to offer three specializations; (3) providing various options to complete the requirement such as local or international GIS internships, Co-op placements, and other GIS projects that offer experiential and community-partnered learning opportunities to offer equity, local-to-global inclusivity, celebrating learning, and responsive collaboration; (4) Indigenizing applied GIS course delivery, focused by-design use of traditional ecological knowledge, learning styles, and GIS needs of the First Nations in the Fraser Valley.

Two student surveys were conducted to determine student demand for the *Applied GIS associate certificate*. The *pilot survey* conducted to test the survey questions, revealed student demand for the *Applied GIS associate certificate* from various disciplines. A look back at the enrollment of two applied GIS courses revealed the steady increase in the participation of programs that were not traditionally users of GIS. The following are the salient points of the student surveys:

1. **Respondent Characteristics** in the second student survey showed that almost all degree programs at UFV were equally represented by male and female student respondents, but diversity in terms of belonging to the LGBTQ, Visible Minority, or Indigenous groups was lacking. The respondents were between 20 and 25 years of age and are in their senior year at UFV, or about to graduate. This is important as the *Applied GIS associate certificate* will be marketed to students who are at this stage in their studies at UFV.
2. **Student Interest** on the *Applied GIS associate certificate* in the second survey was expected to be high since the importance of extra credential (*Credential+*) are explained well in the [Career Mapping Tool](#) which was already available for UFV students' job search before the second survey was conducted. Unfortunately, the majority of the respondents had not used the Career Mapping Tool, and some have not even heard about the tool at all, which might have led to the low student interest in *Applied GIS associate certificate*. But the survey provided a glimmer of hope since both male and female respondents became extremely interested in the GIS Credential+ after the idea of a Credential + was explained to them.
3. A list of **Barriers to Access** came out of the pilot survey and the list was updated and used in the second survey. Results revealed that technology, prerequisites, and experiential learning requirements are not considered barriers to taking the Applied GIS associate certificate. However, additional time and financial resources may become barriers to access, with implications to program managers to find financial subsidies and smarter scheduling may be required.

The proposal for an *Applied GIS associate certificate* that is focused on a specific industry satisfies the spirit of a credential as stated in the [study commissioned by BCCAT](#) "*At the most basic level, the credential should verify, validate, and attest that specific skills and/or competencies have been achieved. They differ from traditional degrees and certificates in that they are generally offered in shorter or more flexible timespans and tend to be more narrowly focused.*" Results of the student surveys reveal specific needs due to diverse programs of students. The College of Arts and the Faculty of Health Sciences advocated for the inclusion of their diverse programs, during the consultation process and the "Build" pathway in the UFV Calendar Mapping Tool suggests that "[a] strong GIS specialization is needed within any degree completed".

In British Columbia, GIS is offered through a broad range of credentials: masters and bachelors degrees, advanced and regular diplomas, and advanced or regular certificates. The proposed *Applied GIS associate certificate* will be unique in the province as no institution in BC offers an *Applied GIS associate certificate* of this size and no institution offers the focus that will change as the needs of industries change.

The employment opportunities available to the graduates of the *Applied GIS associate certificate* are linked to the discipline of their four-year degrees. However, when it comes to GIS applications, the employment numbers published by [WorkBC](#) are very promising for NOC 2153 (Urban and land use planners), NOC 0423 (Managers in social, community, and correctional services), and NOC 4161 (Natural

and applied science policy researchers, consultants, and program officers) up to 2029. In addition, [BC Labour Market Outlook 2022](#), identified five industries that will account to half of all the total job openings from 2019 to 2029, and all are related to GIS: (1) Health Care and Social Assistance, (2) Professional, Scientific and Technical Professional, Scientific and Technical Services (3) Retail Trade, (4), and (5) Educational Services. The office of the [Work Integrated Learning Coordinator](#) (Science and Environment) of the Centre for Experiential and Career Education at UFV provided a list of employers of graduates with GIS skills. The list indicates improved outlook of graduates with GIS skills, but also serves as a pool of industry partners for Co-op, internships, as well as the GIS project.

The five Program Learning Outcomes (PLO) of the proposed *Applied GIS associate certificate* aligns with various combinations of the Institutional Learning Outcomes (ILOs). The PLOs, together, address all the ILOs indicating that graduates from the *Applied GIS associate certificate* will have the knowledge, skills, and values that all UFV graduates can demonstrate.

The *Applied GIS associate certificate* can be completed by selecting any three applied GIS courses (3 or 4 credits each). Alternatively, one applied GIS course can be substituted by a capstone course completed as Co-op, Canada Internship, International Internship, practicum, directed studies and honours project, if the substitute course has at least 80% learning outcomes related to GIS.

Certification is not required after graduation from the *Applied GIS associate certificate*. However, depending on the students' four-year degree program, graduates can apply for professional designation with the [Applied Science Technologists and Technicians of BC](#) (ASTTBC) as Applied Science Technologist (AScT), Certified Technician (CTech), or Registered Technical Specialist (RTS). The GIS skills developed in the *Applied GIS associate certificate* can help the graduate obtain the certification, especially with Geomatics Technology, Environmental Protection Technology, Mapping Technologist, or Environmental Technician.

Several consultations both formal and informal, internal and external, were carried out during the development of the proposed *Applied GIS associate certificate*. UFV-wide consultations included meetings with Faculty of Health Sciences, Directors for CHASI and BIS, Biology and CIS Instructors, and the Associate Dean of the College of Arts. Many, but not all consulted specialists, are GIS users, however, all are aware of GIS in general. The consultations confirmed the feasibility of the proposal, support for the specializations, and suggestions on program structure like that of [Professional Communications Essentials associate certificates](#). UFV-wide consultations included meeting students who were registered or who want to register in the GIS Certificate Program as well as students who sent their e-mail addresses in the pilot student survey. The main issue raised by consulted students is the fear of not finishing the GIS Certificate when they finish their four-year degree programs. Overall, student support for the specializations is very strong.

As a non-degree program, external consultation is not required for the *Applied GIS associate certificate*, but the PWG reached out to the Municipal Governments of Abbotsford, Chilliwack, and Mission. The CityStudio coordinator for the City of Abbotsford and officer in [Innovation, Strategy, and Intergovernmental Relations Office](#) has thrown her whole support for the proposal. In her e-mail of

October 6, 2021, she remarked ***“This is so exciting! It aligns so well with the Civic Governance and Innovation that we have been working on.”***

Program Description

Goal and objectives

The primary goal of the *Applied GIS associate certificate* is to increase access to GIS training at UFV for students in all applicable degree and diploma programs, improving their chances of securing better-paying jobs in business and non-governmental organizations, environment and resource sector, and in the different services in municipal and regional governments.

Specifically, the proposed Applied GIS associate certificate will utilize applied GIS courses to:

- Deliver a hands-on GIS training focused on the skills required of an entry-level mapping technician in a specific industry.
- Introduce learners to problem-based, competency-based methods of GIS learning to complement other ways of knowing.
- Provide the experiential learning environment to manage GIS projects from conception to project delivery, accompanied with soft skills focused on the specific needs of a specific industry in the Fraser Valley.

Anticipated contribution to UFV’s Institutional Mandate and Strategic Priorities

- The proposed GIS specializations under the Applied GIS associate certificate will complement the learning of students from their four-year degree with an applied, skills-based, ready-to-use GIS skills applicable to various industries in the Fraser Valley.
- The proposed program helps meet UFV’s Integrated Strategic Plan for pursuing diverse pathways of scholarship, engaging learners, and building community by drawing on existing courses offered in a range of disciplines, from the arts, business, health, to the sciences.
- The opportunity to include a capstone course which can be completed through various options such as local or international GIS internships; Co-op placements; and other GIS projects that offer experiential and community-partnered learning opportunities, further improving equity and further contributes to UFV’s Education Plan and Strategic Goals of local-to-global inclusivity, celebrating learning, and responsive collaboration.
- Indigenization will extend from the course content to the course delivery, specifically for students who will use their capstone course to work on the traditional ecological knowledge, learning styles, and GIS needs, of the First Nations in the Fraser Valley.

Student Demand

To determine student demand for the *Applied GIS associate certificate*, two student surveys were conducted. **Appendix A** includes the survey schedules, discussions of the results, as well as the implications for programming, of the pilot survey and the campus-wide survey.

- **The Pilot Survey.** The pilot survey was conducted as a trial to test the survey questions and with the hope of finding ways to improve the survey for the second survey. Two sections participated in the pilot student survey. The introductory Geography course where GIS was introduced very early in the course had 31 student respondents while 22 student respondents were taking the applied GIS course *Conservation GIS*.

The most exciting observation about the survey results is the steady increase in the participation of programs that were not traditionally users of GIS such as BIS and BA+ (BA programs other than Geography). This result parallels the observation on the degree composition of students in two applied GIS courses (*BIO/GEOG 357: Conservation GIS and GEOG 358: Forensic GIS*).

- **The GIS+ Credential Survey.** Results of the pilot survey were used to build the second survey which is called the **GIS Credential+ Survey** because the survey invoked the use of the term Credential+ in [UFV's Career Mapping Tool](#). Answers to the questions were grouped into three major topics which are discussed below but for brevity, graphs and extended explanations are only found in **Appendix A**.

Respondent characteristics. This set include questions on gender, programs pursued, year level, age, and diversity. Results reveal that almost all degree programs at UFV were equally represented by male and female student respondents. However, diversity in terms of belonging to the LGBTQ, Visible Minority, or Indigenous groups is lacking which means the more focused promotion of the program to these groups. Although there were more female than male respondents, the general characteristics of each gender were similar. For example, both male and female students respondents were between 20 and 25 years of age and are in their senior year at UFV, or about to graduate. This is important as the Applied GIS associate certificate is being marketed to students who are at this stage in their studies at UFV.

Interest in the Applied GIS associate certificate (GIS associate certificate). This set include questions about knowledge of the Career Mapping Tool, personal knowledge of GIS, interest in a GIS credential, target industries of work, and concentration. The proposed GIS specializations in the *Applied GIS associate certificate* which will contribute to improved access to employment prospects for the UFV graduate, was guided by the recently launched [UFV's Career Mapping Tool](#) a powerful tool to improve their job search skills and from which the idea, definition, and significance of a **Credential+** was lifted from.

The tool which helps students explore future career options, shows students two pathways. The "Launch" pathway reveals occupations that UFV graduates are already qualified to apply to

upon completion of their four-year degrees. This pathway will not be directly affected by the current proposal since students are already pursuing their baccalaureate degrees.

In the “Build” pathway, students who want access to potentially better paying jobs related to digital mapping, can use one of the proposed specializations as added value to their degrees, thereby bridging the gap between the students’ skills upon graduation and the normal skills required for better jobs. Through the proposed GIS specializations, students will be able to show a portfolio of GIS mapping skills and proficiency focused on a particular industry through a capstone GIS project, co-op, experiential learning, or internships. The portfolio will demonstrate to employers that their post-secondary education from UFV, with the added GIS specialization, can translate directly to workplace skills in high demand positions that could equal the post-graduate education and experience.

Majority of the male as well as the female respondents have not used the Career Mapping Tool, and some have not even heard about the tool which might have caused the low interest in the GIS Credential+. However, both male and female respondents became extremely interested in the GIS Credential+ after the idea of a Credential+ was explained to them.

Although general interest in the Credential+ is great in backing up the Applied GIS associate certificate, the courses in an associate certificate should be tailor-made for an application in a specific industry.

The industry classification and grouping of Esri was presented to the respondents and they were asked which industry they would like to work for. Environment-related work was chosen by most male and female respondents, followed by government-related work for male respondents and education-related work for female respondents.

To complement the current programs at SLUEC, three specializations/concentrations were planned to jump-start the mini credential. Based on the equal proportion of student respondents choosing each specialization, any, two, or all the specializations can be offered in any order or any combination.

Barriers to GIS Associate Certificate Access. A list of barriers to accessing the originally considered *GIS associate certificates* from a pilot survey was updated and presented to the respondents of the GIS Credential+ survey. There is a common belief that technology is a barrier to courses such as GIS, especially for female students, but survey results reveal that it is not true in this case. Results revealed that technology, prerequisites, and experiential learning requirements are not considered barriers to taking the *Applied GIS associate certificate*. However, additional time and financial resources may become barriers to access, with implications to program managers to find financial subsidies and smarter scheduling may be required.

System Coordination / Program Duplication

Geographic Information Systems (GIS) is currently an indispensable technology. It is the basis of digital mapping, and digital maps are sources of information that we increasingly depend on for the visualization, management, and analysis of location-based data. In British Columbia, GIS is offered as a master's or bachelor's degree, advanced diploma or regular diploma, and advanced certificate or regular certificate program in several institutions of higher learning as listed in the [Education Planner BC](#).

Appendix B shows the institutions of higher learning in BC that offer GIS programs. Results of the comparisons between what other institutions in BC offer with our proposed Applied GIS associate certificates revealed the following:

- No institution in BC is offering GIS education at the associate certificate level and our proposal will be unique in the province.
- The required credits for completion in the GIS programs offered by other institutions in BC are significantly higher than the 9-14 credits proposed for the *Applied GIS associate certificate*.
- All the programs being offered by BC institutions are general GIS programs and no institution offers specializations. In this regard, our Applied GIS associate certificate program will be unique in the province.

Shorter GIS programs that are more focused refer to specializations. An example of a new way of delivering GIS education through specializations is the [GIS Specializations](#) of the University of California, Davis (UC Davis). Although this program is not offered in BC, it was included in **Appendix B** because of its striking similarity with the proposed Applied GIS associate certificate. Both the UC Davis and our proposed Applied GIS associate certificate are carried out in an applied learning environment, the projects are considered hands-on project and capstone, and both have required and elective courses.

In Canada, a very specific GIS specialization called [GIS for Environmental Management](#) offered by the University of Toronto (UoT) resembles the GIS associate certificate for Environment and Resource Mapping, one of the specializations in the originally proposed *GIS associate certificates*. While the UoT certificate requires two core courses and two electives, the proposed Applied GIS associate certificate requires two or three core (applied GIS) courses, potentially with a capstone industry project as a third course. The UoT GIS specialization has a prescribed hands-on real-life case study. This level of specificity will be matched by the theme of the GIS project in the proposed Applied GIS associate certificate.

Labour Market Outlook

The employment opportunities available to the graduates of the Applied GIS associate certificates are linked to the discipline of their bachelor’s degrees. [WorkBC](#) published employment numbers under NOC 2153 (Urban and land use planners) of 1800 people currently employed in the field and projected job openings of 520 up to the year 2029. Numbers for NOC 0423 (Managers in social, community, and correctional services) include 4000 currently employed and 2360 job openings to 2029. [WorkBC](#) also published employment numbers under NOC 4161 (Natural and applied science policy researchers, consultants, and program officers) of 3400 currently employed in the field and projected job openings of 1220 up to the year 2029.

According to the [BC labour Market Outlook 2022](#), the five industries that are shown in the table below will account to half of all the total job openings from 2019 to 2029, and a curious observation is that GIS mapping is related to all five industries.

Industry	Job Openings		Comments
	Number	%	
Health Care and Social Assistance	141,700	16.5	Community Health Mapping has become a major activity in the world and GIS is mostly used
Professional, Scientific and Technical Services	98,800	11.5	GIS professionals and technicians are always sought after in environment and resource industries
Retail Trade	80,900	9.4	GIS is commonly used in locating retail, accommodation, and food services, as well as transportation and logistics
Accommodation and Food Services	63,200	7.3	
Educational Services	60,400	7.0	Cartography and the use of maps in schools has always been popular; GIS is starting to be taught in High Schools

The office of the Work Integrated Learning Coordinator (Science and Environment) of the Centre for Experiential and Career Education at UFV provided the latest list of employers of graduates with GIS skills (see [Appendix C](#) for the list). The list indicates improved outlook of graduates with GIS skills, but also serves as a pool of industry partners for Co-op, internships, as well as the GIS project.

Curriculum

Learning outcomes

Upon completion of this program, graduates will be able to:

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- PLO1: Navigate with competence the interfaces of industry-standard and open-source GIS software to display GIS data and perform common GIS analytical operations.
 - *This PLO is in alignment with ILO4 (Initiate inquiries and develop solutions to problems) and ILO1 (Demonstrate information competency) as they will help solve an existing problem in the community or industry with their efficient use of open-source or industry standard GIS.*

- PLO2: Ethically acquire, store, process, and publish primary field data respecting the standards and protocols of government, non-governmental organizations, and Indigenous communities.
 - *This PLO aligns with ILO8 (Engage in respectful and professional practices) and ILO1 (Demonstrate information competency) because the graduates have learned through experience how to gather and use the data and information ethically following legal rules and confidential etiquette.*

- PLO3: Construct effective GIS databases that are ready for use in GIS analyses.
 - *This PLO aligns with ILO3 (Use knowledge and skills proficiently) and ILO4 (Initiate inquiries and develop solutions to problems) as the students find the most efficient ways of constructing models for the data they gathered.*

- PLO4: Generate maps that demonstrate accuracy of GIS analyses, creative design, and adherence to industry standards.
 - *This PLO aligns with ILO2 (Analyze critically and imaginatively) and ILO3 (Use knowledge and skills proficiently) as students used their creativity, imagination and critical thinking in making the most appropriate map that conveys the result of their analysis most effectively.*

- PLO5: Successfully perform all the required steps for a GIS project, from planning, through collaborative completion, and respectful communication of the results through self reflection, technical reports, and community presentations.
 - *This PLO aligns with ILO5 (Communicate effectively), ILO7 (Engage in collaborative leadership), ILO6 (Pursue self-motivated and self-reflective learning) and ILO9 (Contribute regionally and globally) since the graduates were still students applying for GIS projects to work in, through the project activities, and eventually in the communication of their GIS work.*

The PLOs, together, address all the ILOs indicating that graduates from the associate certificate will have the knowledge, skills, and values that all UFV graduates can demonstrate.

Program structure²

Requirements	Courses ³	Meets
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² Calendar copy is presented in **Appendix E**.

³ Specialized applied GIS Courses will be developed as need arises in industry.

<p>Choose any three applied GIS courses: (3 courses; 10-11 credits)</p>	<p>Applied GIS Courses</p> <p>BIO/GEOG 357 (4 cr): Conservation GIS (Prerequisite: 45 university-level credits)</p> <p>GEOG 358 (4 cr): GIS for Safe Cities and Healthy Communities (Prerequisite: 45 university-level credits)</p> <p>GEOG 359 (3 cr): GIS Applications in Business (Prerequisite: 45 university-level credits)</p> <p>GEOG 355 (3 cr): GIS for the Built Environment (Prerequisite: 45 university-level credits)</p>	<p>PLO1</p> <p>PLO2</p> <p>PLO3</p> <p>PLO4</p> <p>PLO5</p>
<p>OR</p> <p>Choose any two applied GIS courses and one GIS-project driven capstone course. The capstone course should have more than 80% applied GIS component.⁴ (3 courses; 10-14 credits)</p>	<p>Capstone Courses with GIS Project</p> <p>Co-Op 110 (6 cr): Co-op Work Term Performance and Report 1 (Prerequisite(s): Acceptance to the Co-op option of the student's academic program)</p> <p>GEOG 396 (6 cr): Canada Internship (Prerequisite: 60 university-level credits, instructor's permission, and department head's permission.)</p> <p>GEOG 398 (6 cr): International Internship (Prerequisite: 60 university-level credits, instructor's permission, and department head's permission.)</p> <p>GEOG 400 (4 cr): Advanced Special Topics in Geography (Prerequisite: 60 credits, including four credits of 300- or 400-level geography courses)</p> <p>GEOG 412 (4 cr): Environmental Practicum (Prerequisite: GEOG 252, GEOG 253, 8 credits of 300/400-level Geography, and permission of instructor and department head)</p> <p>GEOG 484 (4 cr): Directed Studies (Prerequisites: Written consent of supervising faculty member and PGES Department Head).</p> <p>GEOG 492 (4 cr): Honours Research Project (Prerequisites: Admission to the Geography Honours Program, GEOG 491, and Instructor's Permission).</p>	<p>PLO1</p> <p>PLO2</p> <p>PLO3</p> <p>PLO4</p> <p>PLO 5</p>

⁴ Any substitution will require approval from the Department Head of the Planning, Geography, and Environmental Studies in consultation with the supervisor and the student. This will ensure that the substitute/capstone course has at least 80% applied GIS component.

Provincial, national and/or international certifications and standards

There is no certification required after graduation from the *Applied GIS associate certificate*. However, depending on the students' four-year degree program, graduates can apply for accreditation with the [Applied Science Technologists and Technicians of BC](#) (ASTTBC) as Applied Science Technologist (AScT), Certified Technician (CTech), or Registered Technical Specialist (RTS). The GIS skills developed in the *GIS associate certificate* can help the graduate obtain the certification, especially with Geomatics Technology, Environmental Protection Technology, Mapping Technologist, or Environmental Technician.

Program Consultation and Evaluation

System consultation⁵

The following were consulted on the development of the proposed *Applied GIS associate certificate*:

NAME	DETAIL	COMMENT	EVALUATION
<i>Catherine Smith</i> , PWG Member, Assistant Professor, Nursing Faculty, Health Science Faculty	October 1, 2021. Consulted with Jason Brandenburg, Director, School of Kinesiology	A GIS associate certificate could be valuable for some KIN students who go into the Active health Stream, depending on prerequisites	Support for the proposal
<i>Martha Dow</i> , Director, CHASI	Several meetings in 2021	A GIS associate certificate in Community Health Mapping should be defined with a wider scope	Support for the proposal
<i>Christine Dalton</i> , PWG Member Instructor, Biology Department	Several meetings in 2021. Consulted with Jennifer Barrett, Biology Instructor and Greg Schmaltz	Jennifer Barrett has worked as a GIS Analyst at Golder Associates and attests to the importance an associate certificate in GIS for biologists to be competitive in the field.	Support for the proposal
<i>Linda Pardy</i> , Associate Dean, College of Arts	Mariano met with Linda several times in 2021 but the formal interview happened on October 28, 2021.	Linda was also the internal evaluator for the Geography/GIS Certificate Program in 2017 so she is familiar with the development of the GIS associate certificate and most of her comments are reflected in the final proposal.	Support for the proposal
<i>Michelle Rhodes</i> , Director, Bachelor of Integrated Studies	Mariano met with Michelle several times in 2021.	Michelle reiterated the opening of the program to other programs such as the BIS	Support for the proposal
<i>Frank Zhang</i> , Assistant Professor, Business and Computing	Mariano met with Frank several times in 2021 and 2022.	Frank became involved in the preparation of the proposal to make it attractive to CIS students.	Support of r the proposal

<p><i>Alison Martens, Abbotsford Innovation, strategy, and intergovernmental relations officer</i></p>	<p>Larissa Horne and Mariano discussed the proposal with Alison on several occasions, but formal discussions happened October 6 and 7, 2021</p>	<p>Alison’s comment through an e-mail says it all: <i>“This is so exciting! It aligns so well with the Civic Governance and Innovation certificate that we have been working on.”</i></p>	<p>Support for the proposal</p>
<p><i>Karen Stewart, Former Abbotsford GIS manager and new Geomatics Manager of Maple Ridge</i></p>	<p>Alison Marten consulted with Karen October 6, and 7, 2021</p>	<p>Karen like the proposal that she shared the proposal with URISA BC Board and her other contacts at Esri Canada.</p>	<p>Support for the proposal</p>
<p><i>Stefan Halas, Alara Cohen, Raj Reddy, Olivia Jackson, Alex Pennock, Emily Hood, William Ha, Molly Tilden, Felicia McKeating, Sarah Brownlee</i></p>	<p>Several one-on-one discussions with UFV students in 2021 and 2022</p>	<p>Students were waiting for the approval of the GIS associate certificate</p>	<p>Support for the proposal</p>

Student Loan Eligibility

The *Applied GIS associate certificate* will be completed within the degree programs of UFV which meet the eligibility requirements for the **Student Aid BC** program.

Program Review

The *Applied GIS associate certificate* program will follow the scheduled reviews of the programs in the Department of Planning, Geography, and Environmental Studies.

Safety and Risk Management

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The courses identified to satisfy requirements of the *Applied GIS associate certificate* have been considered “low risk” to students and instructors, in the past. Although projects in the courses change, whenever there are field trips or class activities that would put the students at risk, the PGES department require instructors to get permission for an activity to be approved with risk assessment. Therefore, all the courses would be deemed safe.

Admission and Transfer

Students will apply to a UFV degree or diploma program where the pre-requisites are met. Once in their degree or diploma program, students will work towards completing the three required applied GIS courses in the *Applied GIS associate certificate*.

Students who have successfully passed all the requirements for the *Applied GIS associate certificate* may ask to be graduated with the associate certificate and they can further their GIS education by applying to the UFV *GIS Certificate*.

Courses in the *Applied GIS associate certificate* program will be periodically sent out for review of transfer credit at other institutions. Transfer credits will be evaluated based on existing BCCAT agreements and in accordance with UFV’s [Transfer Credit Policy \(107\)](#). The Office of the Registrar at UFV maintains a list of transfer credit agreements. Transfer credit arrangements for first- and second-year courses, and some upper-level courses, in BC Institutions are published in the BC Transfer Guide, available at www.bctransferguide.ca.

Other

Appendices

Appendix A: Student Surveys

Appendix B: Comparable Programs

Appendix C: Labour Market Information

Appendix D: Institutional and Program Learning Outcomes Map

Appendix E: Calendar Copy

Appendix F: Full Course Outlines



Academic Planning and Priorities Committee
Terms of Reference

RESPONSIBILITIES

Following consultation with relevant standing committees and areas of the university, as deemed appropriate by the Academic Planning and Priorities Committee:

1. Advise Senate on the mission, goals, objectives, strategies, and priorities of the university.
2. Advise Senate on the planning and priorities for the establishment, renewal, and/or discontinuance of academic programs.
3. Verify program suspension and discontinuance effectively address the criteria as outlined in Policy 222- Program Suspension and Discontinuance.
4. Verify new program proposals effectively address standards and criteria for institutional and post-secondary system needs.
5. Advise Senate on the establishment or discontinuance of academic faculties of the university.
6. Advise Senate on enrolment management strategies and plans.
7. Advise Senate on:
 - a) Policies relating to the library.
 - b) Policies and procedures related to educational affiliations, transfer articulation agreements, and partnerships with other post-secondary institutions.
 - c) Policies and processes for the development, review, implementation, and communication of plans that support the academic priorities of the university.
 - d) Policies and procedures for the systematic review of courses, programs, and educational services.
 - e) Policies, guidelines, and process related to budget at the request of the President.
8. Advise the President annually on the University's budget.
9. Provide advice to Senate on matters related to the university's property, buildings, and structures.
10. Advise Senate on the budgetary implications of matters within the jurisdiction of Senate and its committees, including the costs of developing, implementing, and delivering new educational, research, or other programs.
11. Review the reports and recommendations of program reviews and advise Senate on actions.
12. Establish such subcommittees as needed to fulfill the committee's responsibilities.
13. Other duties as assigned by Senate.
14. Provide annual written reports to Senate.
15. Review the committee's terms of reference and composition annually and submit proposed revisions to the Senate Governance Committee no later than the third week of April, to ensure approval by Senate before the end of the academic year.

COMPOSITION

Chair

Provost and Vice-President, Academic (*ex officio*, voting)

Vice-Chair

A faculty voting member of the committee, nominated and approved by the committee

Voting Members

Chief Financial Officer

Chair or designate from the following standing committees of Senate: Undergraduate Education, Graduate Studies, Research, and Governance*

Seven faculty members, approved by Senate, at least three of whom shall be members of Senate

Two staff members approved by Senate

Two students approved by Senate

Three deans or associate deans approved by Senate

Ex Officio Non-Voting Members

Vice President, Students (or designate)**

Associate Vice-President, Teaching and Learning

Associate Vice-President, Research & Graduate Studies (or designate)**

Associate Vice-President, UFV International

Associate Vice-President, Xwexwílmexwawt

Associate Vice-President, Institutional Research and Planning (or designate)**

Vice-Provost, Academic

University Librarian (or designate~~ed librarian~~)**

University Registrar & Associate Vice President, Enrolment Management

University Secretary (or designate)**

Associate Director, Program Development and Quality Assurance

Director, Equity, Diversity and Inclusion

Director, Budgets & Resource Planning

Administrative Support

Office of the Provost and Vice-President, Academic

* In the case of a designate from these committees, only faculty can serve in this capacity.

** Normally the designate shall be appointed for a minimum one-year term to ensure continuity.

† Normally, there shall be at least one member from each of the faculties, selected to ensure that the composition of the committee reflects the diversity of disciplines at the university.

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

Recommendations for both Human Services Certificate and Diploma Programs

RECOMMENDATION	COMMENT	NEXT STEPS	MAY2022 UPDATE
<p>Recommendation 1: Continue decolonizing work for all Human Services faculty and staff to move forward “in a good way” towards reconciliation in curriculum redesign and implementation. Include sessional instructors in this process. Implementing some specific workshops and opportunities to be guided by Stó:lō elders, knowledge keepers, and UFV’s Teaching and Learning Indigenization specialist.</p>	<p>We agree that it is important to weave Indigenous content throughout all courses and this work continues as courses come up for review. we have talked about forming an Indigenous Advisory Working Group, which could provide some guidance and assistance with this. We have already seen how impactful indigenization has been, particularly for non-Indigenous students enrolled in HSER 140, who have then been placed in an Indigenous agency for their practicum.</p>	<p>The HSER committee plans to invite Lorna Andrews, Indigenization Teaching and Learning Specialist, to our committee meeting three times per year. Lorna is of Nla’kapmux Nation descent and married into the Stó:lō Nation. We will ask her to teach, inform, and support our faculty and staff in our indigenization and decolonization efforts.</p>	<p>Lorna Andrews, Indigenization Teaching and Learning Specialist, has been invited into numerous HSER classes, and Faculty will continue to do so. When schedules align, we will continue to ask Lorna Andrews to attend our committee meetings to inform and support our faculty and staff in our indigenization and decolonization efforts. One of our faculty sits on the Indigenization committee with Lorna Andrews and continues to provide resources from the Indigenization committee. There is an increasing emphasis on students being placed in Indigenous agencies for their diploma practicum placements. The Field Coordinator has established some new relationships with some Indigenous communities that are open to on reserve placements. The Field Team facilitated an Indigenous focused practice panel made up of various representatives from agencies. The goal was to provide students an opportunity to learn about real life examples of working in the field serving Indigenous communities.</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>Recommendation 2: Evaluate and implement plans for Indigenizing programs on page 16 and 17 of the Self-Study, including but not limited to: Developing one Indigenized Social Service Worker diploma that all students take, reviewing all curriculum to update for Indigenous content, assignments, and learning outcomes, and consult with Indigenous scholars and Elders at the University and beyond in the redesign and updating of courses.</p>	<p>We will begin by discussing with Indigenous Studies, Lorna Andrews, and Indigenous Affairs on collaborations and support to Indigenize the Social Service Worker diploma program. Some courses are already reviewed by the Indigenous Studies Curriculum Committee of the University, and we will continue to do so.</p>	<p>The School and HSER Committee will discuss the indigenization of the diploma program at an upcoming retreat and further discuss whether there is value in retaining an Indigenous specialization in addition to developing additional specializations (e.g., mental health, substance use, etc.).</p>	<p>The HSER Committee has considered whether to continue to offer an Indigenous focus program option within the diploma program or to indigenize the diploma in its entirety. Currently, expanding the available course options for Indigenous focus students remains the priority. The HSER produced a list of Indigenous courses taught across UFV from which students within the Indigenous focus can receive credit. Finalizing this list will take place at a future School meeting and a request for a program change to the Indigenous focus will be initiated. Faculty are encouraged to decolonize and indigenize their course content. As well, courses within the program continue to be decolonized and indigenized as they come up for review.</p>
<p>Recommendation 3: Assess and adapt curriculum and assessment strategies for fit with principles of Universal Design and experiential learning. Consider flexible and creative ways of representing learning and increase experiential learning opportunities.</p>	<p>We address the experiential learning component of this recommendation in our course content and classroom-based learning activities. All program students undertake practicum placements and many of our courses involve role-plays and other forms of experiential learning. The School requires additional information and training in the principles of Universal Design.</p>	<p>We will continue to develop course content and teaching materials grounded in problem-solving and critical thinking skills to enhance not only classroom-based learning activities but also practice in the field. The School will invite a specialist in Universal Design to an upcoming meeting to learn more about how to go about implementing this important initiative.</p>	<p>We continue to develop course content and teaching materials grounded in problem-solving and critical thinking skills to enhance not only classroom-based learning activities but also practice in the field. We have created ways of representing learning and increase experiential learning opportunities in our HSER classes with the incorporation of guest lectures, including Indigenous knowledge keepers and Elders via Zoom and in person, as well as panel presentations with expertise in the field. We have included a variety of</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

			<p>class assignments such as the use of blogs, vlogs, and digital storytelling for students to engage in critical self-reflection, engagement with one another, and practice their communication skills.</p> <p>The area of Universal Design remains under development. Being remote and online these past two years has hampered our ability to engage in some of these initiatives in a meaningful way. We hope to take this up in 2022-23.</p>
<p>Recommendation 4: Intentionally integrate information about working with diverse populations into curriculum for both programs. This includes continuing to grow practicum opportunities that offer experiences with diverse populations. Populations identified by students to be underrepresented provide a starting place for this investigation.</p>	<p>The Field Team is committed to providing students with opportunities for practicum placements with diverse populations and on a variety of social justice issues. Much of this community engagement work is focused on relationship building with agencies with the goal of creating new opportunities for field placements.</p>	<p>The Practicum and Internship Coordinator will ask students what they see as being underrepresented and/or missing in terms of practicum opportunities that can help guide targeted community engagement endeavours.</p>	<p>This work is ongoing. With each semester comes new relationships with agencies that lead to new and innovated practicum opportunities for our students. The pandemic severely restricted the number and variety of practicum opportunities available to students.</p> <p>The Field Coordinator continuously seeks feedback from students around the types of field experiences they are seeking and the populations they are hoping to engage with. Right now, we are looking at increasing practicum opportunities with gender diverse communities and with Indigenous people.</p>
<p>Recommendation 5: Investigate resources and information (including funding) to support opportunities for international practicum placements for Human Services.</p>	<p>We would like to be able to support students who are interested in international placements. Recently there has been one international placement in Bellingham, WA. Currently there is a student interested in a placement in Australia, but it cannot be pursued at</p>	<p>The Practicum and Internship Coordinator will consult with colleagues across BC to gather more information. Collaborations will be sought with NGOs, non-profit organizations, and academic institutions that meet the requirement of providing</p>	<p>Not much has been accomplished in this area to date. The Committee is proud of the fact that almost all HSER students who wanted one were able to complete practicum placements in-person during the pandemic years. There has been no opportunity to travel internationally</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

	this time due to the COVID-19 pandemic.	an SCSW and/or an SSW level placement opportunity.	and most of our students do not have the financial means to do so. Despite this, we do intend to continue to explore possibilities for international practicum placements and will do so as student interest and opportunities arise.
Recommendation 6: The committee recommends, based on discussion with Teaching and Learning, that the Human Services Committee review and finalize SSW and SCSW program level outcomes as they are currently in draft form.	These outcomes were developed in response to the Human Services Program Review. The Committee would like to live with the draft learning outcomes for at least one year before finalizing them.	We will discuss these with Teaching and Learning and bring these to a future School meeting for approval.	This recommendation remains in progress. There have been several new additions to the School's faculty and new faculty teaching within Human Services need to be involved in the further development and finalization of these outcomes. We intend to pick up where we left off during 2022-23.
Recommendation 7: Complete curriculum mapping of course outcomes to program outcomes. Teaching and Learning assists with this process and we encourage both programs to connect with that support. Once mapping has been completed then program changes can occur with the support of a clear alignment with the curriculum.	We will pursue this when we return to in-person learning.	The mapping will be scheduled during the 2021-22 school year. The Program Chair will contact Teaching and Learning upon resumption of in-person learning to schedule these sessions.	This remains in progress. The HSER programs will return to in-person learning in Fall 2022 and we will begin to work on this recommendation during the upcoming academic year.
Recommendation 8: To continue to investigate current curriculum trends within both programs to ensure that content is in alignment with provincial standards across institutions.	We are a member of the Deans and Directors of Human Services in British Columbia, whose members sought support from the Ministry of Education to pursue Provincial Standards of Practice for Education Assistants. There are no provincial standards for or regulation of Social Service Workers. This is an ongoing conversation that is undertaken annually through Human Services	We have received funding to revise and develop a new SCSW course in 2021. The Human Services Committee will look at regional trends to ensure our course content aligns with other institutions.	HSER 194: Education Assistants and Supportive Schools was approved by UEC in Winter 2022 and is scheduled to be offered for the first time in January 2023 as an alternative to HSER 196, which requires major revisions or replacement. This decision was undertaken in consultation with and on the advice of the University Registrar. HSER 195 was taught by an LTA instructor in January 2022 in a new

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

	Articulation and by articulating courses with other post-secondary institutions.		way that updated curriculum and content. However, this course requires substantive revision, which has yet to be undertaken. HSER 195 and HSER 196 will both being redeveloped to address deficits in education assisting curriculum, including on neurodiversity. Funds from the School's special projects budget will be used to redesign curriculum to meet this need.
Recommendation 9: To continue to work with Admissions in clarifying the requirement and practice of first qualified first served practice.	An annual meeting with both Admissions and Advising staff takes place between the Director and Human Services Chair and members of these departments. The admissions process used by the Human Services Committee has been explained repeatedly.	In June 2021, the Human Services Chair, administrative support staff, and the Director are scheduled to meet with Admissions representatives and the Registrar's Office to review application procedures and practices.	The Director and Human Services Chair continue to meet with Admissions annually, including in June 2021 and February 2022. The Director met with Exploratory Academic Advisors in January 2022 before admissions closed. The admissions process to Human Services programs has not changed. We have excellent communications and relationships with our Academic Advisor and the Director of Advising. The fact that some in Admissions and Advising do not understand this process is disappointing.
Recommendation 10: It is recommended that there be increased curriculum content around self-care and wellness in the field.	This is presently part of the curriculum in the field seminars of HSER 130, HSER 131, and HSER 230. Students complete and journal about their self-assessments and wellness plans. A seminar class is devoted to this topic. ~~~~~	The Practicum and Internship Coordinator will include self-care and wellness in pre-placement activities and host a session to discuss strategies and personal plans. ~~~~~	This remains part of the HSER programs' curriculum. The Human Services Field Coordinator plans to facilitate a pre-placement activity around self-care. Self-care is frequently discussed with students during practicum planning and is part of the curriculum in several HSER courses. ~~~~~
Recommendation 11:	The School is currently in the process	In January 2021, the School hired	The School hired new faculty

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>The review panel supports the Human Services Committee’s first recommendation to “Increase the number of permanent faculty who teach in the Humans Services” and suggests that the School adjust teaching assignments so that this can be implemented in both the SSW diploma and SCSW certificate as soon as possible.</p>	<p>of hiring a tenure-track Assistant Professor to teach Human Services courses. The Collective Agreement language says that faculty are to teach across all program levels, on all campuses, and during all time blocks; however, this does not always happen. The Committee has no authority to oversee the assignment of work.</p>	<p>Dr. Nancy Norman, a faculty member with Kwantlen’s Education Assistant Certificate Program, to teach HSER 192: Supporting Students in Schools. The Director and Chair have recently received Dr. Norman’s suggestions for proposed changes to the SCSW certificate program. These will be brought to the next HSER Committee meeting.</p>	<p>members who are actively teaching in Human Services. The School engaged in a new course allocation system in 2022 and it resulted in more faculty teaching across all levels of the curriculum. Feedback has been very positive on the new process, which will be reviewed and discussed at the School’s August 2022 retreat. With the certificate program’s planned move to the Mission campus, the School will be exploring ways to collaborate with Teacher Education, also moving to Mission, on the delivery of the certificate program.</p>
<p>Recommendation 12: The self-study recommended an increase in “diversity of faculty and staff to reflect the student body and community at large”. This infers attention to the continual needs for hiring practices that promote equity, diversity, and inclusion, and professional development for current faculty so they are well situated to privileges, Indigenization, decolonization, and diversity in their teaching. With the proposed plan for a fully Indigenized SSW diploma, considerations for new Indigenous faculty could be particularly important.</p>	<p>Dr. Amanda LaVallee sits on an Indigenous hiring committee at UFV – the committee is in the process of applying for a Human Rights exemption to restrict hiring to Indigenous employees across the university in all positions. This goal is also reflected in our current recruitment of new faculty members. ~~~~~</p>	<p>The School has recently increased the diversity of its faculty component as a result of recent hires. The School will continue to work towards increasing the diversity of its workforce.</p>	<p>The School continues to increase the diversity of its faculty with new tenure-track faculty hirings. Indigenous, racialized, and gender-diverse faculty have all joined the School of Social Work and Human Services in tenure-track positions. As faculty members leave the University to pursue other opportunities or for retirement, consideration of increasing the diversity of faculty complement is always a factor in hiring new faculty.</p>
<p>Recommendation 13: The Human Services Committee and School consider diversity needs for upcoming hiring based on proposed</p>	<p>Preference is given to Indigenous applicants in hiring and postings for new faculty read, "a commitment to Indigenization and Reconciliation is</p>	<p>The School will continue to increase the numbers of Indigenous faculty who teach in the School.</p>	<p>The School presently has two Indigenous faculty members. We will continue to promote an increase in the number of Indigenous faculty</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

curriculum changes (e.g., Indigenizing diploma) and put a plan in place for future hiring directed at these needs (e.g., posting, interviews, etc.)	core to our institutional vision and our Education Plan. This commitment includes the goal of centring Indigenous ways of knowing throughout our organization, recognizing our responsibilities to community, and a multi-year plan to increase the number of Indigenous faculty, staff, and administrators working at UFV."		who teach in the School via recruitment.
Recommendation 14: Sessional and permanent faculty continue to identify their training needs for decolonizing, indigenizing, and promoting diversity, Internationalization, and anti-racism.	These are done through annual professional development plans approved by the Associate Dean and evaluated every three years for tenured faculty.	Faculty have recently undertaken several webinar courses on Indigenization and decolonization and this work will continue.	Faculty have attended numerous online conferences around Indigenous sovereignty, health and wellbeing, social work practice, the '60s scoop, residential schools, and education. Faculty have undertaken several webinar courses specific to Indigenous cultural safety and humility. Some faculty have attended a workshop on decolonization held by Lorna Andrews from the Indigenization Teaching and Learning office.
Recommendation 15: As sessional faculty teach more in the certificate and diploma, we recommend that the School find a way to support the training needs of sessional faculty.	The Committee has no authority in this area. Sessional faculty are entitled to some professional development funds but how they use those funds is beyond our control.	We will continue to encourage sessional faculty to request Professional Development activities and encourage them to enrol in courses that focus on indigenization.	The School will continue to encourage sessional faculty to request Professional Development activities and encourage them to enrol in courses that focus on indigenization.
Recommendation 16: The Reviewers recommend that after the Human Services Committee determines the need for major course revisions in the certificate and diploma, they continue to advocate for adequate release time from the university.	The Human Service committee used discretionary funds to revise two courses (HSER 190 & 192) and develop another (HSER 194) certificate course. SOWK 297 was also developed using these funds. HSER 140 was developed without additional funding, and it is unclear	The School is in discussion with a sessional faculty member to revise or develop a new EA-focused course in the certificate program. Dr. Norman has just recently provided the Director and Chair with feedback on the curriculum of the certificate program. We will	New course HSER 194 has been approved and will be delivered in January 2023. HSER 195 and HSER 196 remain to be redeveloped and the Director has committed funds to ensure that this work takes place.

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

	whether future funds will be available.	invite her to an upcoming Human Services Committee meeting.	
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(Staff and Administrative Support)			
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RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>Recommendation 17: It is recommended that the School increase support for the work of the Practicum and Internship Coordinator by increasing the duties of the Field Education Assistant or adding a specific position to work with Human Services Programs, so that they are given priority focus.</p>	<p>The Practicum and Internship Coordinator has spoken with the Committees Assistant about the ways that she can provide support. This is mostly in the areas of updating IPT forms and lists from Admissions and statistics. The day-to-day tasks are performed by the Practicum and Internship Coordinator. Presently, the Field Education Assistant's main focus is supporting the degree programs. She provides support to HSER in the areas of criminal records checks and Prior Learning Assessment Recognition (PLAR), as well as tracking Affiliation Agreements. She also provides administrative support for the Field Committee. With working from home during the pandemic, the Practicum and Internship Coordinator has been doing most things herself as it is easier and more efficient. However, as we are trying to establish a Field Team, it is not completely cohesive.</p>	<p>The School's Director will work with the Dean on a proposal to increase the responsibilities and classification of the Field Education Assistant position in 2021-22. It is unlikely that the School will receive sufficient budgeted funds to create and fill an additional administrative support position.</p>	<p>The School does not have sufficient budgeted funds to create and fill an additional administrative support position. In consultation with the Dean's Assistant, the Director initiated and fully supports the redevelopment of the Field Education Assistant's job description and reclassification from a pay group 5 to a pay group 6. If this effort is successful, it does not necessarily mean that the incumbent will be able to provide administrative support to the Human Services Field Coordinator. The Field Assistant's job description position is currently undergoing revision in anticipation of a request for Job Reclassification.</p>
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RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>Recommendation 18: It would be consistent with the School's social justice values to align pay for the Human Services Practicum and Internship Coordinator with that of the degree programs' Field Education Coordinator and establish this position as faculty versus staff.</p>	<p>There are inequities between the positions in terms of pay and classification. This contributes to the perception that the degree programs are superior to the HSER programs. It also creates a hierarchy between the two positions, which are not viewed as equal. While the credentials for these positions are different, the roles are almost identical. The Human Services Practicum and Internship Coordinator is a staff position requiring a BSW degree. In comparison, the Social Work Field Education Coordinator is an academic support faculty position and requires an MSW degree.</p>	<p>In 2022, the School's Director will work with the Dean of Professional Studies to achieve parity between these two positions.</p>	<p>The Human Services Field Coordinator recently graduated with an MSW degree from the University of the Fraser Valley. The distinction in qualifications between these two positions is now moot. The Field Education Coordinator position is currently vacant, and a Selection Advisory Committee has been struck and is shortlisting candidates for interview. This structural inequality is difficult to address within the current context.</p>
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RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

(Physical Space)			
<p>Recommendation 19: The SSW diploma and SCSW certificate review their dedicated classroom and other space needs and continue to press the Institution to secure dedicated classroom and spaces (offices/recording rooms, etc.) that will create suitable environments for experiential learning.</p>	<p>We fully agree with and support this recommendation and have made this requirement known. This was not pursued in 2020-21 due to the pandemic and all courses going online.</p>	<p>The School will submit a rationale to the University for dedicated classroom space when classes return to an in-person delivery model.</p>	<p>Classes are due to return to in-person in September 2022. The School has requested a dedicated classroom to deliver the certificate program on the Mission campus when it is renovated, and the program moves to that campus.</p>
Institutional Resources (Library)			
<p>Recommendation 20: It is recommended that library services be shared with sessional and permanent faculty, so opportunities and relationship with the library can be forged early in the certificate and diploma.</p>	<p>During the orientation of new hires, tenure-track faculty learn how to access the library and other resources. Sessional Instructors receive information on accessing library services and resources via the new hire handbook or attending the new employee orientation. Sessional instructors have access to the library and resources throughout their contract, typically for two years, or while maintaining their seniority. During the School meeting and in our minutes, information is shared with the School's library contact person and available funds and resources.</p>	<p>In August 2021, the School will invite our School's library liaison to our Retreat to provide an overview of services, resources, and workshops for new faculty.</p>	<p>Martin Warkentin, Copyright Librarian, was invited to a HSER committee meeting to provide education and support to committee members. Resources have been shared with other faculty and students within our programs. The School's UFV library liaison attended a School meeting to provide an overview of services and resources. The School will continue to invite our School's library liaison to future School meetings to provide an overview of services, resources, and workshops for new faculty.</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>Recommendation 21: Work with the library to build “libguides”, collections of books, journals, and offer a yearly workshop for first-year students to interact with the library.</p>	<p>A member of the Human Services Committee could fulfill this liaison function between the library and Human Services programs.</p>	<p>The School will request library workshops for all first-year students in 2021-2022. The Committee will consider nominating one member to liaise with the university library.</p>	<p>Several faculty have invited library staff to talk in HSER classes to provide an overview and resources for first-year students. The library liaison will be invited to provide a mini presentation at our HSER student orientation in Fall 2022. Dr. Lisa Moy is the School’s nominated faculty member to liaise with the library. Lisa has indicated she intends to give up this role. A Human Services Committee member will be encouraged to take on this role.</p>
Teaching and Learning			
<p>Recommendation 22: The reviewers recommend that permanent and sessional faculty be reminded of the support they can access from Teaching and Learning.</p>	<p>Permanent and sessional faculty receive ongoing service updates about TLC-sponsored workshops and available training. The Faculty of Professional Studies and UFV websites also promote these resources. Because of the pandemic during the 2020-21 school year, these updates were provided weekly.</p>	<p>The School will arrange for Teaching and Learning to provide one-hour tutorials to interested permanent and sessional faculty at the beginning of the Fall and Winter semesters.</p>	<p>The School arranged for Teaching and Learning to provide one-hour tutorials to interested permanent and sessional faculty at the beginning of the Fall and Winter semesters.</p> <p>Permanent and sessional faculty are reminded at the beginning of every semester of the support they can access from Teaching and Learning.</p>

Recommendations for the School and Community Support Worker certificate

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

RECOMMENDATION	COMMENT	NEXT STEP	MAY 2022 UPDATE
<p>Recommendation 23: Continue to gather specific feedback for the School and Community Support Worker Certificate from stakeholders and consider whether an advisory council focused on the Certificate might assist with information to make decisions about curriculum changes in this area.</p>	<p>We agree with this recommendation and have received some initial feedback from school districts about our program. Bringing these stakeholders together as an advisory group would help us see where our current gaps are and where we need to focus and strengthen our program. It was a recent agenda item at the School's Advisory Council meeting, which supported Human Services initiatives to develop and revise SCSW course content. A council member with the School District offered to provide input on making the courses more relevant to the needs of the community and local school districts.</p>	<p>We will identify who our stakeholders are and establish an Advisory Committee specific to the certificate program. Nathan Ngieng, Director of Instruction, Learning Support Services, of the Abbotsford School District, has agreed to assist in guiding our course revisions. In April and May 2021, he will provide input on current knowledge and skills required by Educational Assistants.</p>	<p>An SCSW Certificate Program Survey was administered in November 2021 to gather information regarding the current SCSW Certificate Program from our faculty. All school faculty and administrative staff participated in the survey. Survey results were shared in a report to the School. It was concluded that an advisory council for the certificate program alone is not being pursued at this time. Our school's Advisory Council is made up diverse, knowledgeable, and supportive stakeholders of all our programs – providing support and guidance on specific programs and classes when needed. Nathan Ngieng, former Director of Instruction and Learning Support Services, no longer holds this position with Abbotsford School District. He resigned from the School's Advisory Council when he became Assistant Superintendent. To date, the School District has not put forward a name of an alternate Advisory Council member. The Director will pursue this in Fall 2022 and invite someone from the Mission School District as well. In 2022-23, the School intends to engage in a consultation with the incoming Dean of FECHD and the Teacher Education Department to explore a partnership in the delivery of the SCSW certificate program in Mission.</p>

RESPONSE TO HUMAN SERVICES PROGRAM REVIEW RECOMMENDATIONS

<p>Recommendation 24: Decide on the community and educational collaborations that are most important to meet the vision and mission for the SCSW certificate once this vision and mission is clarified.</p>	<p>We already have strong relationships with various community and school partners who hire our students from their practicum post-graduation.</p>	<p>Compile a list of these partners and invite them to form an Advisory Council for the certificate program.</p>	<p>We are not pursuing this recommendation currently. We will revisit this recommendation once the move of the certificate program to the Mission campus is underway. We will pursue partnerships to work more closely with TED and CYFS in the delivery of the certificate program in Mission.</p>
<p>Recommendation 25: Consider specific strategies to indigenize the SCSW certificate. For instance, adding HSER 140 to the certificate could serve as a starting point.</p>	<p>The SCSW certificate comprises 31 credits, of which the site visitors recommend a minimum of 50% be EA-focused. Adding HSER 140 to the program would further weaken the EA focus of the program.</p>	<p>We will discuss this at a future committee meeting and consult with stakeholders before proposing or proceeding with any change.</p>	<p>The Committee will not be adding HSER 140 (a social services course) to a redeveloped Education Assistant certificate program. We will continue to indigenize the certificate program.</p>
<p>Recommendation 26: The committee supports the recommended need for the inclusion of specific disability information and content. The committee would revise this recommendation to include the inclusion of course content to reflect all disability areas with a possibility of this being part of the course on lifespan development.</p>	<p>SOWK 225 is overdue for revision and these suggestions will be taken into consideration in redeveloping this course.</p>	<p>SOWK 225 will be scheduled for review during the 2021-22 school year and a decision made about whether to focus the curriculum of this course on human development as it relates to disability.</p>	<p>SOWK 225 has been taught by a new faculty member for the past two years and work on SOWK 225 continues and includes a new textbook, <i>Decolonizing Human Behaviour in the Social Environment</i>. Further revision of SOWK 225 with a disability-specific focus is not yet underway but will be explored during 2022-23.</p>
<p>Recommendation 27: HSER 195 & 196 were last reviewed and updated in 2007 as per the outlines in appendix 15. The committee recommends these courses be scheduled for review and update to meet the standards set by the University's process of course and program approvals.</p>	<p>The Committee has been awaiting feedback from the Human Services Program Review before moving on either of these courses.</p>	<p>HSER 195 and 196 will be included in the proposed curriculum revisions to the certificate program. These courses will either be modified or replaced depending on the extent and nature of the changes proposed.</p>	<p>Minor revisions to HSER 195 were undertaken when an LTA instructor taught the course in January 2022. The intention was for the instructor to propose major course revisions to be brought forward to UEC. With the departure of the LTA instructor, this work will have to be pursued by someone else. The long-term sessional instructor for HSER 196 has retired. On the advice of the University Registrar, the School is pursuing a minor program change to allow HSER 194 to be offered in January 2023 in its place</p>

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			until HSER 196 is either redeveloped or replaced.
<p>Recommendation 28: The committee recommends revisiting the idea of a single mission statement. The SCSW program could benefit from a stronger identity. Separate mission statements may support the development of a vision and identity from which all SCSW program revisions will flow.</p>	<p>An interesting idea worth exploring. If we can form an Advisory Council specific to the certificate program, this would be an excellent place to start.</p>	<p>The Committee will consider this at a future meeting and if an advisory committee for the certificate program is formed then that committee will be part of the body that decides on whether to adopt a separate mission statement.</p>	<p>Pursuing a separate Advisory Council for the certificate program is currently on hold. The Director intends to bring to the School's August 2022 retreat plans to revisit the School's Mission Statement with the intention of have one Vision for the School with the possibility of separate mission statements for each of the School's programs.</p>
<p>Recommendation 29: The committee recommends that time and necessary resourcing be put in place for the School to meet, in a retreat format, to determine the vision and mission of the program, including where they want it to reside.</p>	<p>We agree with this recommendation wholeheartedly and it has been discussed at recent meetings of the School.</p>	<p>The Director will call a meeting of the School to discuss and review options regarding this proposal before moving forward with major curriculum revisions.</p>	<p>Given we have been working online for more than two years, a virtual meeting was held in Spring 2021 to address this recommendation. The survey of faculty conducted in November 2021 provided further clarity on the School's ambivalence about delivery of the certificate program because of the faculty's expertise in social work and social services practice, not in Teacher Education or Education Assisting. Future discussions with the Dean and TED are being sought.</p>
<p>Recommendation 30: We recommend additional planning to consider the standards of the sector and how the SCSW program aligns with both sector values and learning outcomes.</p>	<p>The Committee agrees with this recommendation and will review the standards of the renamed EACSW sub-sector.</p>	<p>This planning will occur at our annual School Retreat and within Human Services Committee meetings.</p>	<p>This recommendation is in progress. As courses in the certificate program are revised or new courses developed, compliance with the informal standards is the School's goal.</p>
<p>Recommendation 31: The committee supports the recommended need for the inclusion of specific disability information and content. The committee would revise this recommendation to include the inclusion of course content to reflect all disability areas with a possibility of this being part of the course on</p>	<p>SOWK 225 is overdue for revision and this recommendation will inform the direction the revised course will take.</p>	<p>As each course undergoes review, we will consider adding additional content to reflect all disability areas. We will also discuss the idea of redeveloping SOWK 225 to focus on lifespan development as it relates to disability specifically.</p>	<p>This recommendation is a repeat of Recommendation 26 and our response to it appears there.</p>

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lifespan development.			
<p>Recommendation 32: To ensure ongoing consistent representation at the provincial sub-sector table for the certificate – also known as the Community and School Sub-sector (CASS), assign a consistent person from the certificate program to attend and network.</p>	<p>We agree with this recommendation, but it has been difficult to achieve given that the Program Chair is responsible for two programs and no faculty member teaches exclusively in the certificate program.</p>	<p>It is hoped that the new faculty hire will be willing to take on this role.</p>	<p>It remains the case that no permanent faculty member teaches extensively in the certificate program. In recent years, including in May 2022, the Human Services Field Education Coordinator and the Director shared responsibility to attend the EACSW sub-sector meetings, as well as the LTA instructor who taught HSER 195 and conducted the survey of faculty related to the certificate program.</p>
<p>Recommendation 33: Consider the idea of identifying specific volunteer hours in the field of disability as a requirement for admission to the certificate program to help students understand the elements of the field and the link between community and school practice.</p>	<p>Some students enter our program with volunteer hours in this area and others, who are right out of high school, do not. For some students, their practicum is the first time they have experienced direct practice in the area of disability. This is a good idea to explore, although it could have a negative effect on the number of students who apply to the program.</p>	<p>This is an important recommendation, and we will explore whether it can be implemented. Kwantlen’s EA program requires specific disability-related volunteer experience prior to admission. Our program is much smaller and to require additional volunteer hours may have a negative impact on our admissions numbers.</p>	<p>The nature and kind of qualifying volunteer experience required to apply to a Human Services program was clarified in an online handout available on the School’s website during the application period. The SCSW program specifically asks that students demonstrate disability-related volunteer or work experience.</p>
<p>Recommendation 34: Consider the laddering of the certificate practicum into the diploma for students who choose to continue on. Since students in the diploma are placed in schools, it seems only logical that this type of practicum be recognized in the diploma program directly versus through a PLAR process.</p>	<p>Some of the core certificate courses are also required in the diploma. There are not very many diploma students who pursue school-based practicum placements. Now that students in the diploma program require HSER 192 in order to be placed in a school, some of these students have decided not to pursue this. This recommendation would only make sense for school-based practicum, but it is worth</p>	<p>This recommendation is not something the committee is prepared to move on at this time for a variety of reasons, including the fact that some certificate practicum placements do not predict success in the broad spectrum of practice within social services. To graduate diploma students with only one practicum is not something the Committee embraces.</p>	<p>The School continues to believe that these two programs are distinct and as the certificate program becomes further refined as an EA program (with the removal of SOWK 110, for example), there will be further separation between them. The move to the Mission campus will further distance these two credentials from one another. We continue to consider SCSW students’ school-based practicum experience for PLAR consideration and routinely offer PLAR credit for paid employment in schools as Education Assistants.</p>

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	considering.		
<p>Recommendation 35: Need to decide about whether the program will continue as a school and community program or an EA specific program. This is a critical decision and will impact the moving forward for curriculum development.</p>	<p>We agree that this is a critical decision. We do not have a strong reputation in the field as an EA program, which limits opportunities for students not only in terms of practicum placements but for future employment when they are competing with graduates of other programs.</p>	<p>This decision will be made in consultation with the Dean of Professional Studies, the community, the School's Advisory Council, Human Services Committee members, and following the School Retreat.</p>	<p>An SCSW Certificate Program Survey was conducted in November 2021 to gather information regarding the current SCSW Certificate Program from our faculty. Survey results shared in formal document with the School provided valuable information regarding the fact that the faculty in the School do not see themselves as content experts in Education Assisting, which is why a collaboration with Teacher Education linked to the move of both programs to the Mission campus is so important. The reality of today's employment market is that in order to work as an EA, applicants must possess a certificate in Education Assisting. To work as a Community Support Worker, no such credential is required.</p>
<p>Recommendation 36: If you are to continue with the community element the course curriculum must reflect the importance of community knowledge and skill, even if a student decides to become an EA. The reviewers recommend that the program become intentional about how the program is constructed and presented to potential students.</p>	<p>A small, 31-credit program cannot be all things to all constituents, and it is unclear what is meant by "intentional about how the program is constructed and presented." The recent name change of the program was an attempt to be more intentional with students and the community.</p>	<p>Members of the School need to talk about this in a dedicated meeting without being attached to a predetermined outcome.</p>	<p>The School did have this discussion and a survey administered in November 2021 indicated that faculty within the School are more closely aligned with community than they are with Education Assisting. It is for this reason the School must work with Teacher Education, hire a faculty member to teach exclusively in the certificate program, or stop delivering the program. All these options will be explored in Fall 2022 with the incoming Dean of FECHD. The School continues to focus on education assistance as this is where our students intend to be employed and where the job opportunities exist.</p>
<p>Recommendation 37: Continue with the commitment of improving the certificate program by developing course content that</p>	<p>This is an interesting and useful recommendation. Because diploma students are able to take human development</p>	<p>This will be considered at an upcoming meeting of the Human Services Committee and brought to the School for</p>	<p>Work on SOWK 225 continues and will include a new textbook: <i>'Decolonizing Human Behaviour in the Social Environment'</i>. A final decision on whether</p>

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addresses the diverse needs and abilities of individuals with disabilities in the school and the community. Consider using the course on human development to examine development through the lens of various disabilities.	through the Psychology department, we could rewrite SOWK 225 in such a way that it does approach development through the lens of various disabilities.	further consideration.	to rewrite SOWK 225 as a disability course has not yet been taken. It is hoped that a decision will be made in the next academic year.
Recommendation 38: One course on work in the schools is limited if the program is wanting to meet the needs of current and future school districts. We recommend that the program continue to develop curriculum that can address teaching and learning strategies in the work of an EA and incorporate this same curriculum into the content around community.	We have been given feedback from various stakeholders that our curriculum is lacking in these areas. This has resulted in some large school districts (Langley and Surrey) not accepting our students for practicum placements. Even Fraser Cascade School District has recently declined to accept our students for placement.	We are in the process of having HSER 194: Emotionally Safe Schools for Diverse Learners approved by the University and are working with Dr. Nancy Norman to propose additional courses specific to Education Assisting.	HSER 194 was approved by the University and will be delivered in January 2023. The certificate program now has two courses (6 credits) exclusively focused on education assisting. However, this insufficient to reach the goal of 50% of curriculum being EA focused. The redevelopment of HSER 195, HSER 196, and SOWK 225 will further increase the EA (HSER 195 and 196) and disability focus (SOWK 225) of these courses.
Recommendation 39: Revise marketing material to reflect current thinking in the field.	The School is responsible for all of its own marketing materials. We have worked hard over the past year to update the university calendar, landing pages, and program pages within the School's website.	We will approach Allan Williams and Nancy Norman and ask for their feedback on the marketing materials we have recently updated.	Allan Williams has provided the School with feedback on our certificate-related materials. It is premature to refocus what little marketing we are able to do until the program is fully reconfigured. Our School has a Facebook and Twitter account where faculty post material, workshops, seminars, information, and supports for our students throughout the year.
Recommendation 40: We recommend a complete review of course content to ensure that at least 75% 80% of the courses are disability focused.	This will be difficult to achieve in the short term given the current course composition of the certificate program. It requires more discussion and will require more curriculum development, which we are open to, but it will also require resources that we do not	The Committee brought forward the removal of SOWK 110 as recommended by the reviewers to be replaced by HSER 194. SOWK 225 could also be redeveloped, and we will consider this as well as whether a section of HSER 120 could be disability	We continue to work towards increasing the disability focus of the certificate's curriculum. We are not trying to reach a goal of 75 to 80% disability-focused content because it is not a realizable goal under the present circumstances. This could only be achieved if the certificate were delivered by an exclusively disability-focused department or program area.

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	presently have.	focused. However, we are not in agreement with this recommendation at this time.	
<p>Recommendation 41: School content in curriculum is limited as are course materials. Need to incorporate teaching and learning strategies, positive behavior supports, and inclusion practice as part of the role of an EA. Updated textbooks on the role of an EA are available.</p>	<p>We agree with this recommendation and have recently updated textbooks for some of our certificate courses. Implementing this recommendation requires restructuring the program and developing new resources.</p>	<p>We will require additional resources to achieve this outcome. We do not have the resources at this time to implement this recommendation in its entirety.</p>	<p>Mary Harber’s textbook, <i>The role of an education assistant: Supporting inclusion</i>, has been adopted for use in the newly developed course HSER 194.</p>
<p>Recommendation 42: Reduce the number of sessional faculty in this program.</p>	<p>A good idea but not one that the HSER Committee has any authority over. We do not assign work to sessional or regular faculty and do not have many faculty members with sufficient expertise to replace qualified sessional instructors.</p>	<p>One of the recently posted faculty positions is geared towards Human Services but that includes social services as well. A dedicated faculty position to teach within the certificate program would be desirable.</p>	<p>There are currently two vacancies within the School. Consideration will be given to hiring someone to teach extensively within the certificate program. The difficulty is that, unless this faculty person also holds an MSW degree, they would be unable to teaching within the MSW, BSW, or Social Service Worker diploma programs.</p>
<p>Recommendation 43: Include the Indigenous course in the certificate program, which would further strengthen the commitment to indigenization and support practice knowledge of cultural humility in the field.</p>	<p>This recommendation will be given serious consideration and discussion; however, it is hard to achieve the goal of increasing EA components of the 31-credit certificate program when adding HSER 140 would not achieve that end. Cultural humility is covered extensively in HSER 120 and other courses.</p>	<p>The committee will discuss this at an upcoming meeting and also bring it to the attention of the School for consideration.</p>	<p>Currently, we are Indigenizing the EA and diploma programs by updating our course outlines and seeking Indigenized context and textbooks. Given this, we will not be including HSER 140 in the certificate program. Moreover, increasing EA and disability components of the 31-credit certificate program cannot be achieved by the addition of HSER 140.</p>
<p>Recommendation 44: Clearly decide on how this program languages ‘disability’. Although we recognize the variances in how disability language it is important to</p>	<p>This is an interesting observation. Everyone who teaches in this area has their preferred nomenclature. We have been using diverse</p>	<p>We will discuss this at a future committee meeting and try to develop a consistent approach to nomenclature. We will ask Allan Williams and</p>	<p>Allan Williams remains a key faculty member who teaches HSER 192 in fall and will teach HSER 194 in winter. Allan is a tenured faculty member with Kwantlen’s</p>

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decide between diversability and disability but ensure that you do not genericize it to diverse learners as this may contribute to the lack of visibility of an identity related to disability.	abilities or diverse learners upon the recommendation of a sessional instructor who teaches exclusively in this field.	Nancy Norman to join us for this discussion.	Education Assistant certificate program, and it was in consultation with Allan that we chose the term diverse learners. We intend to consult with Teacher Education regarding the nomenclature they recommend going forward.
Recommendation 45: Although students like SWK 110 and it is an important introduction course to social work, it does not fit in the disability specific certificate program. The recommendation is to remove this from the course curriculum for certificate students.	We agree with this recommendation and asked the site visitors for feedback on the suitability of retaining SOWK 110. At a School meeting on March 5, 2021, the School voted to remove SOWK 110 from the certificate program and replace it with HSER 194.	This recommendation is in the process of being implemented. It currently sits with the Curriculum Committee of the Faculty of Professional Studies.	HSER 194 is now approved and will be delivered in January 2022. We are working with the Office of the Registrar on a plan to offer it instead of HSER 196 in the short-term. The longer-term goal remains the removal of SOWK 110.
Recommendation 46: Recommend that you keep the course on HSER 195 as this is a disability specific course. The only reason to drop this course would be if you were no longer looking at community support work as a part of the certificate program.	This is an interesting and somewhat contradictory recommendation. While the site visitors want us to increase the EA component of the program, they also want us to retain this course, which requires major revision or replacement. To revise it and not replace it, we will be constrained by the original purpose of this course.	This is something that requires further discussion and consideration. At the present time, we do not agree that HSER 195 should be retained unless it can be made into a course that is more relevant to Education Assisting.	The delivery of HSER 195 in January 2022 did not move it in the direction of Education Assisting. We are reluctant to discontinue a course but will work with the Registrar to determine whether the changes required to HSER 195 will result in it requiring a new course number. Allan Williams has offered to redevelop this course with the School and resources will be allocated to this in the next academic year.
Recommendation 47: If it is decided, as a program, to focus the certificate as a specific EA program, it is imperative that the curriculum include one course on disability and community in order to ensure that students understand the political and social impact of disability as a construct in the context of ableism,	At present, there is more than one course dedicated to disability and community, HSER 190 and HSER 195. It is challenging to see how we can both increase EA components of our program while retaining a strong focus on community. These are contradictory goals	This will require further discussion and consideration and we will seek feedback from stakeholders and curriculum consultants before proceeding.	There is no plan to remove HSER 190 from the certificate program, which has a strong community focus, and HSER 195 may be redeveloped with a dual focus if that is the recommendation of the course developer. Given this, we do not intend to add additional community courses or revise any existing courses to have a great focus on community. We remain perplexed how

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stereotypes, and discrimination.	within the context of our program.		these contradictory aims are achievable in a 31-credit certificate program.
Recommendation 48: Ensure that if you do keep community, it is important not to make students choose between community and school – They are not mutually exclusive except for the setting in which practice takes place – therefore, it is critical that students who want to be an EA be exposed to principles of work in general with people with disabilities and that community support workers also learn about teaching and positive behaviour support.	This is already achieved in our program as it is currently constituted. All students take HSER 190: Introduction to Community and School Support, HSER 192: Supporting Students in Schools, and HSER 195: Relationships in the Community. We are also bringing forward another EA focused course, HSER 194: Emotionally Safe Schools for Diverse Learners.	This will be considered in the broader context of restructuring the certificate program; however, it is important to recognize that both of these goals are currently being met.	There is no further update related to this recommendation.
Recommendation 49: Recommend that with maintaining two practice areas in the program that there be an option for students to have an experience in both community and the school system - whether the 200 hours is split or whether the one that is not the primary focus for the student be a short two-week introductory experience so that students have some exposure.	This is an interesting recommendation which is worth exploring. We do have some concerns about watering down the practicum experience by having two 100-hour practicum placements. We encourage students not only to challenge themselves but also to support their stated goals. If a student is clear about wanting to be an EA, it seems contradictory to require them to practice in a different area when the practicum experience itself is so short.	We will take a look at comparable programs in BC and compare and contrast how they deliver the field education component of their program. We are not supportive of a two-week practicum experience. It is inconsistent with the School's requirement that placements be of sufficient length and duration that both the depth and breadth of practice-based learning can take place.	The School is still considering whether to break up practicum hours between two, 100-hour practicum placements; however, such a major structural change to the delivery of the program would require extensive consultation. A 200-hour practicum is the minimum a setting needs to determine whether a student has the capacity to work in that area. Many private, for-profit certificate programs in Education Assisting offer multiple 2-to-4-week practicum experiences. The School has no intention of moving in this direction. It is inconsistent with what we value most about experiential learning.
Recommendation 50: HSER 196 does not need to be a full clinical lab course on personal care. Although health issues are a part of	This is an interesting recommendation worthy of consideration. If HSER 196 remains a required course in	This recommendation is in line with our own thinking about this course and we will explore how to approach this	This has been discussed earlier in this update. If the revision of HSER 196 is such that it can retain its course number, we will retain it. With the move to Mission, it will

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supporting individuals with disabilities, this course could be modularized with a short module on personal care. Other elements of the course could relate to mental health and disability, creative engagement strategies, and augmentative communication.	our certificate program, it will have to move in the direction proposed by the reviewers. Otherwise, it will be removed from the certificate to make room for the development of a new course.	at an upcoming meeting. If HSER 196 can be revised to achieve greater learning outcomes, then we support retaining it. Otherwise, we would recommend discontinuance to develop a new course.	be impossible to expect Mission-based students to travel to the Chilliwack campus for two, three-hour lab classes.
Recommendation 51: The reviewers question whether there is a need for interpersonal interviewing counselling course at this level – especially since there is already a course in professional communication CMNS 125. The HSER 120 course has a primary focus on how to interview ‘clients.’ Currently there is no content on how to communicate with someone who uses alternative or augmented communication, highlighting that this course could use a disability lens which is necessary for applied practice. This topic could also be covered in a modularized wellness course (see above).	This recommendation comes as a surprise to committee members, who have long considered HSER 120 essential to all Human Services programs. While it is true that the course does not focus on using augmented/alternative communication technologies, it does teach students interpersonal skills that assist them to be effective human services workers with a variety of people of diverse backgrounds. CMNS 125 is a writing course and serves a very different purpose than HSER 120.	We will explore the possibility of developing a specific Interpersonal Communications course for the certificate program, but resources and numbers of students will have a bearing on whether or not we can proceed. By way of example, for the Fall 2021 semester, there were a total of 25 complete applications for the certificate program, which accepts a minimum of 24 students per year.	The School has no plan to discontinue the delivery of HSER 120 within the certificate program. The idea of having one section of HSER 120 delivered in Mission with a disability focus is something we are actively exploring.
Recommendation 52: It seems prudent that the Certificate program be decolonized and Indigenized. (See article offered in Appendix 1).	This is true of all our courses and programs. It is an ongoing process that we undertake with each course that is reviewed or new course that is proposed.	Further discussion will be required to determine the best approach to take to decolonizing the certificate program.	This is ongoing for all classes within the School. Faculty are encouraged to decolonize and indigenize their course content. As well, courses within the program continue to be decolonized and indigenized as they come up for review.
Faculty Experience and Focus			
Recommendation 53: The reviewers recommend firstly that faculty in the school make space to have a fulsome discussion about their	We agree with this recommendation, particularly in light of the fact that the certificate requires extensive	The Director will call a meeting of the School to discuss these matters and bring forward a	An SCSW Certificate Program Survey was conducted in November 2021 to gather information regarding the current SCSW Certificate Program from our faculty. The

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vision and identity for the SCSW, including the best options for the location of the program and resources or other collaborations (e.g., with Education) needed for its success.	revision at this time. Most faculty within the School are not specialists in this area, with the exception of a few, who teach in this program as well as all of our other programs.	recommendation to the Dean of Professional Studies.	outcomes of this survey have been described earlier in this update.
<p>Recommendation 54: Once a vision for this program is clear, the reviewers suggest that the School begins to assign and/or recruit faculty with qualifications specialized to this program, such as work with disabilities and school-based intervention.</p>	We agree with this recommendation and are currently trying to recruit a faculty member who has this specialization and expertise.	The results of the current faculty postings will give us some direction on whether this recommendation can be implemented.	With two faculty vacancies, the Director will bring this up with the School and the Dean when seeking to fill these vacancies.
Faculty Workload			
<p>Recommendation 55: To increase the School's ability to respond to the distinct needs and opportunities for the School and Community Support Certificate (assuming it will remain in the school), it is suggested that the School consider obtaining resources such as extra release time to assign a permanent faculty member as a program lead specifically for SCSW Certificate, in addition to the Human Services Chair position.</p>	The Human Services Committee agrees with this recommendation. The one-course release provided to the Human Services Chair is inadequate and inconsistent with the release time provided to the other program chairs, who are responsible for one program each, whereas the Human Services Chair is responsible for both the certificate and diploma programs.	Given the small size of the certificate program, it is unclear whether this additional release time would be made available. Even if it were, at the present time it is unclear whether any current faculty member would have the interest or expertise in being the Chair of this program.	With the impending move to the Mission campus, a program coordinator for the SCSW certificate program will become essential, in light of the fact that this faculty position will be located at the Mission campus in proposed shared office space with ECE and CE. How this arrangement will work will be explored with the incoming Dean of FECHD and the other affected departments. It will not be possible for the Human Services Chair to coordinate a program fully delivered on the Mission campus when the Social Service Worker diploma and degree programs are located on the Abbotsford campus.
<p>Recommendation 56: Reviewers recommend investigating how other programs who are part of the CASS subsector structure and resource this role.</p>	This is a good suggestion, but it should be considered in light of the fact that almost all other EA programs in the province are stand alone, whereas our certificate is one small component of a much larger School that offers this	We will confirm how this release time is structured at other BC post-secondary institutions and report our findings and recommendations to the School and the Dean.	This work has not been done and it is premature to do so given the impending changes coming to the certificate program and its eventual move to Mission.

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	certificate, a diploma program, as well as Bachelor and Master of Social Work degrees.		
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Recommendations for the Social Service Worker Diploma

RECOMMENDATION	COMMENT	NEXT STEP	MAY 2022 UPDATE
<p>Recommendation 57: SOWK 110, SOWK 210, and SOWK 225 were last reviewed and updated in 2011, 2012, and 2013 respectively as per the outlines in appendix 15. The committee recommends these courses be scheduled for review and update to meet the standards set by the University's process of course and program approvals.</p>	<p>SOWK 110 is currently in the review process. The School recently approved a revised course outline, which has been sent to the Faculty's curriculum committee, faculty council, and the Undergraduate Education Committee for decision.</p>	<p>SOWK 210 will be reviewed in 2021-22 and SOWK 225 will be reviewed in light of the feedback from the site visitors that it could be revised to include a disability perspective to human development. A decision on SOWK 225 may take some time.</p>	<p>SOWK 110 was revised and approved by the University. It is now titled <i>Introduction to Social Work and Social Services</i>, which further differentiates it from the EA focus of the SCSW certificate, strengthening the School's argument and the reviewers' recommendation to remove it from the certificate program.</p> <p>SOWK 210 and 225 are currently in the process of being reviewed and they should be coming forward for approval during 2022-23.</p>
<p>Recommendation 58: Another observation of the committee, following its review of appendix 14 and course outlines, is the variety of terms used for the same concept, some of which are outdated in the sector e.g., addictions, substance misuse, and substance use. We reiterate the Committee's first recommendation on pg. 31 of the self-study guide and propose the addition of language updates be added to the review of the course outlines.</p>	<p>We agree with this recommendation, and it is something we continue to work on as courses come up for review. The School needs to agree on common language in order to proceed with the implementation of this recommendation across all levels of programming offered by the School.</p>	<p>We will ask that this topic be put on the School's annual retreat for discussion and decision.</p>	<p>This remains in progress as courses are reviewed and updated. The Director will bring this to the August 2022 School retreat for discussion.</p>
<p>Recommendation 59: To continue the conversation and explore the Indigenous diploma as either a separate entity within the</p>	<p>We have discussed forming an Indigenous Advisory Working Group, which could provide</p>	<p>We will attempt to form an Indigenous Advisory Committee.</p>	<p>The HSER Committee has decided to retain the Indigenous Focus Stream of the Social Service diploma and has spent the past year</p>

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<p>Human Service Program or to drop this in favour of Indigenizing the curriculum across all courses or thirdly create a blend of both.</p>	<p>guidance and input. We have not come to a decision on the future direction to take but it will be discussed at future meetings of the Committee and at the School meeting.</p> <p>We have already seen how impactful indigenization has been, particularly for non-Indigenous students who have taken HSER 140, and who have been placed in an Indigenous agency for their practicum.</p>	<p>The discussion of how to incorporate Indigenization within Human Services is ongoing. We hope to make a decision within the next academic year.</p>	<p>considering how to further indigenize it. The Committee has agreed that the four previously titled FNST required courses (Now IPK 101, 102, 201, 202) will remain options for students in this stream but other courses offered by departments across the university will also be possibilities. The School no longer “owns” or timetables the 4 IPK courses (one is not currently being offered) so an expansion of options is timely. The School will bring forward a program change proposal in Fall 2022 to initiate this change.</p> <p>The discussion of how to incorporate Indigenization within Human Services is an ongoing within the Human Services Committee monthly meetings with courses being reviewed and updated regularly.</p>
<p>Recommendation 60: Explore more clearly articulated methods for Universal Design for Learning used in course delivery such as alternative methods to assessment beyond exams and academic papers.</p>	<p>We agree with and will seek out additional information and resources to go about implementing this.</p>	<p>The School requires consultation and assistance with this and will attempt to find it within the University.</p>	<p>We continue to develop course content and teaching materials grounded in problem-solving and critical thinking skills to enhance not only classroom-based learning activities but also practice in the field. We have created ways of representing learning and increase experiential learning opportunities in our HSER classes with the incorporation of guest lectures such as Indigenous knowledge keepers and Elders via Zoom and in person. As well as panel presentations with expertise in the field. We have included a variety of class assignments such as the use of blogs, vlogs, and digital storytelling for students to engage in critical self-reflection, engagement with one another, and practice their communication skills.</p> <p>This recommendation is a repeat of an</p>

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			earlier recommendation and has been addressed there.
Recommendation 61: Ensure that sessional instructors (the majority of instructors in the certificate program) have access to the Teaching and Learning courses mandated for all full-time faculty.	This recommendation was addressed earlier in this report.		Sessional instructors are able to enrol in courses offered by Teaching and Learning but do so on their own unpaid time. It is an excellent suggestion; however, whether it is possible to require that sessional instructors take these courses is unknown.
Recommendation 62: Expand current issues in courses and strengthen link to social justice issues and self-care/wellness. (student feedback).	Self-care and wellness are covered in all practicum seminars (HSER 130, 131, 230). Students conduct two self-assessments and create wellness plans. Practicum students are also required to describe the ways in which the agencies they are placed implement social justice initiatives.	The Practicum and Internship Coordinator will include self-care and wellness in pre-placement activities and host a session discussing strategies and personal plans.	This recommendation is a repeat of an earlier recommendation and has been addressed there.
Recommendation 63: Clearly articulate laddering process as students noted that this was confusing.	There is no "laddering process", per se. The specific courses that transfer from one program to another are specified in the University Calendar and explained to students by the School's Academic Advisor.	None	Every fall, at the beginning of student orientation, the School's Academic Advisor presents a detailed PowerPoint on both HSER programs and the credits that transfer from one program to another, as well as to the BSW degree. This is also made explicit on the School's webpage.
Recommendation 64: These were captured in the overall recommendations for the purpose of this concluding section of the report.	Unclear what this recommendation is referring to.	None	None