

Bachelor of Computer Information Systems

Faculty of Business and Computing

Dean's Summary

Submitted by:

Dr. Chris Schinckus, Dean, Faculty of Business and Computing

Accepted by:

Senate in May 2024

Academic Planning and Priorities Committee in April 2024

MEMORANDUM

Academic Planning and Priorities Committee

TO: Joanne MacLean, Chair, Senate

FROM: James Mandigo, Chair, Academic Planning and Priorities Committee

CC: Chris Schinckus, Dean, Faculty of Business and Computing

DATE: April 29, 2024

RE: Bachelor of Computer Information Systems Program Review

The Bachelor of Computer Information Systems (BCIS) Program within the Faculty of Business and Computing underwent a program review in 2023-24. The Academic Planning and Priorities Committee reviewed all of the documentation related to the program review and accepted them at its April 24, 2024 meeting and recommend to Senate for approval.

The APPC recognizes the considerable amount of work expressed appreciation for the work done by the BCIS program review team and the PDQA office and praised the thoroughness of the report.

The recommendations include the need for more space, staff, and faculty to accommodate the growth of the BCIS program, as well as the use of blended learning and evaluations to enhance student and teaching outcomes. The APPC acknowledged that program reviews often generate requests for more resources, and that the space issues require a collective solution across UFV and recognizes the BCIS positive developments, such as the hiring of additional staff and faculty members, and the creative use of labs for blended classes.

Suggested motion:

THAT Senate accept the documents related to the Bachelor of Computer Information Systems Program Review as presented.

Attachments:

- Memo to APPC
- Action Plan and Deans summary

Program Review: Action Plan
Bachelor of Computer Information Systems (BCIS)

Instructions: Consider the data gathered through the program review process (i.e., self-study report, external reviewer report and recommendations and commendations, survey results, consultations with community and industry partners, and internal consultations). Identify goals for improvement of the program over the next five-seven years. Detail the specific steps that will be taken to advance these goals including key milestones, measurable outcomes, and people responsible for implementing the changes. Depending on the results of the program review, some areas may require greater attention than others. Please add/remove rows to each section, as needed.

Curriculum and Assurance of Learning

Goal: Administer a survey on preference, engagement, and effectiveness of teaching delivery modes.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Blended learning has been a part of course delivery at UFV and within the School of Computing for some years, with more formalized implementation since 2020. Blended delivery mode at UFV requires a minimum of 30% of the content to be delivered face-to-face and at least 30% to be delivered online. However, without coordinated timetabling, computer labs are rarely available for more than one blended section, even if each section only requires the lab for less than 50% of the time.

In Winter 2023, the School of Computing conducted a blended timetabling pilot with a small minority of sections delivered by the area, creating matched pairs of courses sharing the same classroom by alternating face to face and online instruction. For this pilot, all sections were timetabled with 50% face-to-face and 50% online, coordinating the sessions in alternating weeks, avoiding conflict and ensuring 100% lab utilization. Additionally, school closure dates were taken into account to ensure that even with a school closure, no class has a gap of more than 2 weeks without meeting face-to-face.

Feedback was collected from advising, the student association, and from faculty members. Several issues arose, including a question of whether all sections can or should be timetabled using this approach, as well as the challenges faced by students who may have a face-to-face session immediately adjacent to an online session. Faculty members also noted that this approach made it feasible have a face-to-face midterm, and underscored the importance of interactive synchronous activity during online sessions.

The School of Computing expanded implementation in the Fall 2023 semester. Faculty opted out of the initiative in cases where pedagogical questions were raised, and classes were timetabled to reduce the probability of face-to-face sessions being immediately adjacent to online sessions by applying a heuristic whereby all first-year courses are face-to-face on the first week, and all other courses are online on the first week. A review of registration data revealed that 1.5% of all seat registrations in blended sections resulted in a student having an online session immediately adjacent to a face-to-face session, and half of these occurred in instances where the heuristic was not followed.

Additionally, the School of Computing coordinated with the Teaching and Learning Centre which designed and delivered teaching support workshops emphasizing online teaching, attended widely by both tenure track and sessional faculty.

A detailed survey instrument is being designed in coordination with our Teaching and Learning Centre, informed by a recent BCCAT report about Online delivery trends in the region (<https://www.bccat.ca/reports/OnlineDeliveryTrends2023.pdf>)

External Review Input:

Recommendation #1: *That the School of Computing partners with Teaching and Learning to develop a student survey on preference, engagement, and effectiveness of teaching delivery modes (in-person, alternating hybrid, and online), and consider the results of this survey in planning for course scheduling in Summer 2024 and beyond.*

Ideally, the survey will be administered in person to students by an individual who is not the instructor of their class.

Rationale: This will inform what student preferences are – at least among those students who have been able to take courses in this model – and help to determine an appropriate mix of delivery models in future semesters.

Commendation #1: Recommendation #1 notwithstanding, the committee commends the School of Computing on the conception and implementation of the current hybrid course delivery model, as a way to meet high demand for courses, maintaining significant in-person contact time for each section, while working with existing resource constraints.

Commendation #3: The committee commends the School of Computing for its ability to deliver high quality programs and maintain student satisfaction in an era of unpredictable – and often surging – demand, despite challenges in attracting and retaining permanent faculty, and despite static physical environment constraints.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Design and administer the survey, consistent with BCCAT report recommendations, and in consultation with stakeholders (student association, faculty, advising, teaching and learning)	Collated survey results	February 2024	All Faculty
Present results of survey, invite input from stakeholders, and recommend changes and improvements	Report: Summary of Recommendations	March 2024	All Faculty

Goal: Restructure graduation requirements.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area has noted program completion requirement anomalies that occur when using course based rather than credit-based completion requirements and will revise the program design to better address these. Additionally, we will revise the presentation of the program which is currently prescriptive on a semester basis to align with practice of other areas more closely and clarify the elective requirements.

External Review Input:

Recommendation #2: *That the School of Computing curriculum committee restructures the requirements of the BCIS through credits, rather than courses, and present the requirements in the UFV calendar in a manner that doesn't allocate requirements to particular semesters of study.*

Recommendation #2a: *That the School of Computing review and clarify what courses are intended to be included as approved Arts electives in the BCIS.*

Recommendation #2b: *That the School of Computing replace the breadth requirement of lower-level courses in another discipline with a requirement of credits (at any level) in a discipline other than CIS or COMP.*

Rationale: Recommendation #2 ensures that a student graduation from the BCIS has met the requirements with at

least 120 credits complete, and in almost all cases, at most 122. The follow-up recommendations are included to clarify and update breadth requirements.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Clarify Program elective requirements	Calendar copy update	June 2024	All Faculty
Restructure Program requirements to address credit anomaly and prescribed semesters.	Calendar copy update	June 2024	All Faculty
Review and revise 4 credit courses that impact on restructuring completion requirements.	Course revisions and Calendar copy update	June 2024	All Faculty

Goal: Align with the Institutional Learning Outcomes (ILOs)

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Effective July 2024, UFV is unveiling a new set of Institutional Learning Outcomes (ILOs). Thereafter, the area will review both the course Learning Outcomes (LOs) and Program Learning Outcomes (PLOs) and resolve areas where realignment is needed.

External Review Input:

Recommendation #3: *That the School of Computing reviews and updates the Program Learning Outcomes of the BCIS to ensure that they align with the Institutional Learning Outcomes of UFV, once these are finalized, while ensuring that the Program Learning Outcomes continue to be supported by course learning outcomes within the BCIS.*

Rationale: This will ensure that the learning outcomes of the BCIS will continue to align with the academic goals of UFV, as codified in the updated Institutional Learning Outcomes.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Consultation on ILO - PLO – LO alignment with stakeholders (external advisory, students, faculty, advisors, and teaching and learning)	Report: Recommendations for learning outcome alignment of courses and program learning outcomes	November 2024	All Faculty
Establishment of new PLOs	New Program Learning Outcomes	February 2025	All Faculty
Course changes to align with revised PLOs	Official Course Outline revisions	March 2025	Course Coordinators
Program changes to align with PLOs	Calendar change	September 2025	All Faculty

Goal: Reduce the number of courses with a 2-year rotation that may be used in a concentration.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Annual timetabling is done to create opportunities for all concentrations to be completed each year. Without constraint to this practice, where there are multiple ways to satisfy the requirements for a concentration, not all options are offered every year. As noted, the planned offering of courses in upcoming terms is published for students in advance. Nonetheless, almost all courses previously on a 2-year rotation have been accelerated to a 1-year rotation cycle.

Where courses used in a concentration are likely to remain on a 2-year rotation, a review of the concentration as well as potential revision will be explored.

External Review Input:

Recommendation #4: *That the School of Computing reviews the Security concentration course requirement structure and/or schedule by which these courses are offered, to reduce barriers to completion in a 4-year program with Security concentration.*

Rationale: This will reduce barriers to timely degree completion for students choosing the Security concentration, particularly for students arriving at UFV with the first two years of the BCIS already completed.

Commendation #2: The committee commends the School of Computing for their clear and easily accessible presentation of upcoming courses. This is a valuable tool for students and advisors as they map degree requirements to upcoming semesters in order to complete the program in their desired timeframe.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Concentration timetabling requirements review	Timetabling change and/or recommendation for program revision	May 2024	Director / Advising
Concentration revision	Calendar change	November 2024	Faculty coordinating courses in each concentration

Goal: Increase the prominence of teamwork and projects in upper-level courses

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area has received input from the external advisory committee also recommending teamwork and collaboration skill development.

External Review Input:

Recommendation #5: *That the School of Computing revises the BCIS to introduce teamwork and collaboration learning outcomes early in the program, to help students prepare for group work in upper-level courses. This may be achieved through Communications courses and/or through focused learning outcomes introduced in certain lower-level required CIS and/or COMP courses.*

Rationale: This will help students to prepare for group projects in upper-level courses, and help develop teamwork and communication skills important in Co-op job placements. (See Section E above.)

Tasks to complete the goal (add rows as needed): <i>Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.</i>			
Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Identify key courses and program design characteristics where teamwork can be expanded.	Report: Recommendation for increasing teamwork and collaboration in BCIS courses.	May 2024	School of Computing Curriculum Committee
Revise courses to reflect increased teamwork and collaboration	Official Course Outline approval	June 2024	Course Coordinators
Goal: Explore the feasibility of allowing co-op credit toward program completion			
<i>Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.</i>			
<p>The Bachelor of Science, Computing Science Major currently allows use of some co-op credit toward program completion. We will explore expansion of this practice in the BCIS.</p> <p>External Review Input: Recommendation #6: <i>That the School of Computing considers allowing one or two COOP courses (6 credits each) to count towards BCIS completion credits.</i></p> <p>Rationale: This will recognize valuable learning related to BCIS curriculum, and will motivate students to participate in the Co-op program.</p>			
Tasks to complete the goal (add rows as needed): <i>Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.</i>			
Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Program revision, in consultation with Co-op coordinators and advising.	Program revision	November 2024	Industry Liaison

Student Achievement
Goal: Address instructional technology requirements
<i>Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.</i>
<p>The School of Computing is developing specific technology requirements with the expectation that all students will need a portable compute device with advanced wireless networking capabilities, applicable for both on and off campus learning. This initiative is in large part due to the shift away from on-premises equipment and towards cloud based compute environments for students and faculty alike.</p> <p>Review and consideration of impacts on marginalized groups is prudent, in terms of home environment and in terms of technology capabilities.</p>

External Review Input:

Recommendation #7: *That the School of Computing take steps to ensure that students have access to facilities and technology needed to be able to effectively engage with online instruction modes, in particular for courses where online instruction is part of the only available mode of delivery. We further recommend that the School of Computing works with International and Indigenous student support systems to ensure that they have access to technology and space to remotely attend classes both on and off campus.*

Rationale: While the move to offer some teaching online in response to facilities pressures appears to be working for many students and instructors, it is important to ensure that marginalized groups are not negatively impacted by this choice. This recommendation is closely related to Recommendation #1 (assess impact of online learning)

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Consultation with Teaching and Learning, Student Academic Affairs (including advising), Information Technology Services (ITS), faculty, and the student association.	Report: Instructional technology capabilities and recommendations for students and for the institution	2024 March	Curriculum Committee
Survey – student technology capabilities and remote learning environment.	Report Appendix	2024 March	Curriculum Committee

Goal: Identify and mitigate barriers to preparedness of 3rd year transfer students

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Multiple factors may impact on preparedness of 3rd year transfer students, ranging from environmental or economic factors to program and course design decisions as well as decisions around admissions and granting of transfer credit. This is a non-trivial undertaking, which can be expected to result in multiple initiatives each addressing a different dimension.

External Review Input:

Recommendation #8: *That the School of Computing review the relative preparedness of incoming 3rd year international students and, if necessary, coordinate with overseas partners to ensure that their programs and offerings align with those available at UFV's domestic campuses.*

Rationale: The School of Computing significantly contributes to UFV's overall appeal to international students, and it is important to ensure that students who enter the program through established 2+2 international programs are given equal chance of success. This work depends on permanent faculty having adequate capacity to engage in this kind of assessment.

Commendation #4: The committee commends the School of Computing for a program whose admission requirements provide excellent learning opportunities to a wide range of students, preparing them for high-demand work opportunities both in the Fraser Valley and across Canada.

Commendation #5: The committee commends the School of Computing and the Advising personnel on their ability to work together to correctly direct students to programs that are appropriate for their preparedness, interests, and career goals.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Consultation with Institutional Research and Planning (IRP), advising, UFV International	Report: Identification of barriers to success for transfer / pathway students. Appendix: Success analysis of transfer pathways	2025 June	Curriculum Committee
Consultation with transfer students and faculty.	Report: Recommended action to address barriers to success for transfer / pathway students.	2025 September	Curriculum Committee

Governance and Resources

Goal: Increase the number of tenured and term faculty

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area has experienced several retirements in recent years, matching the pace of recruitment of new faculty. At the same time, the area has experienced record growth, and a corresponding increase in the number of sessional faculty members teaching in the program. Budget allocations for permanent faculty have increased, and with the ratification of the new collective agreement, the institution is poised to extend more competitive offers to candidates. The area has increased the frequency and number of tenure track position openings and has also increased the number of limited term appointment (LTA) position openings.

The requirement to hire to achieve an appropriate balance of tenure-track faculty is a requirement of the collective agreement and is therefore regularly reviewed and budgeted for.

External Review Input:

Recommendation #9: *That the School of Computing and the Dean's office work to increase recruitment and retention of permanent faculty to decrease the over-dependence on sessional instruction.*

Rationale: Achievement of an appropriate ratio of faculty to sessional instructors is necessary to ensure accountability of assessment and instruction, timely review of curriculum and learning outcomes, and meeting UFV Indigenization goals.

Commendation #6: The School, its Director, and its permanent faculty have admirably adapted to growth in enrollment without associated increases in resources while continuing to deliver a quality program. This speaks to the expertise, dedication, and professionalism of everyone involved.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Hiring		Ongoing / cyclical	Standing Selection Advisory Committee (SAC)

Goal: Align capabilities of teaching spaces with technology needs of the program

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Course plans and workload allocation are made on an annual basis, and revised/updated based on new information such as enrolment trends. To the extent possible, the area timetables a uniform distribution of sections of courses spanning all levels of the program in each of the four daily time slots from 8:30AM through 9:50PM, and including a mix of face-to-face, online, and blended learning options in proportion to the program-wide distribution of each delivery mode. This is repeated in each time slot and on each day from Monday through Thursday, with an expanding number of options available on Fridays.

Technology requirements for courses are nuanced and change over time. While room allocation is done by central scheduling, the area reviews proposed room assignments before they are finalized with the benefit of a pragmatic heuristic of comparing with past room utilization and confirms suitability with members of the area when a course is placed in a new room/lab and requests changes where required.

With the system-wide trend towards cloud-based environments, the attachment of courses to specific physical learning environments may diminish. Nonetheless, a review of course/lab technology requirements for all courses is both timely and welcome.

External Review Input:

Recommendation #10: *That the School of Computing review and update course learning outcomes and instructional needs of all BCIS courses, to better inform the selection of teaching spaces and to relieve the scheduling pressure on teaching labs.*

Rationale: The School of Computing’s mechanism for scheduling teaching spaces appears to be driven by uncertainty about who will be assigned as instructor and whether or not they will be a permanent faculty member. However, teaching-space allocation should normally be determined by a carefully crafted course outline, including learning outcomes.

This recommendation depends on a number of other recommendations including: the outcome of an assessment of the current alternating hybrid learning model, the review of course outlines to align teaching space with learning outcomes, and the hiring of adequate permanent faculty to review and update course outlines.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Course lab/technology requirements review	Table of course requirements	2024 April	Course Coordinators

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Goal: Increase instructional space

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area will seek expanded instructional space, including non-traditional instructional spaces designed to support teamwork and project-based learning.

External Review Input:

Recommendation #11: *Based on outcomes of Recommendation #1 and #10 above, that the School of Computing assess the instructional facilities needed to support expected enrolment and growth, and that UFV increase the teaching space available to the School of Computing in alignment with these needs.*

Rationale: The School of Computing’s ability to efficiently and creatively make best use of the space available is commendable but not sustainable.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Project teaching space requirements	Report: Projected instructional space requirements for the School of Computing	2024 March	Curriculum Committee

Goal: Review effective communication and enforcement academic integrity expectations.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The School of Computing provides instructors with a series of detailed email templates to establish clarity on the policy and procedures, as well as specifically what is required at different stages of the process. This information also reduces uncertainty around expectations from both students and faculty. Additionally, student orientation includes coverage of academic integrity, and institution-wide academic integrity summary data is reported per area. The area also hosts orientation sessions focused on sessional faculty members to improve communication of expectations across all instructional responsibilities including academic integrity matters.

Nonetheless, a review of academic integrity concerns is timely, and a representative from the area is already involved in the revision of the relevant policy.

External Review Input:

Recommendation #12: *That the School of Computing develop a practice, that all permanent faculty and sessional instructors are expected to follow, for communicating UFV’s Academic Integrity Policy to students across all BCIS courses. As part of this process, we recommend that the School of Computing consider developing an oversight mechanism within the School of Computing to identify potential Academic Integrity risks, in particular in courses that are frequently taught by sessional instructors.*

Rationale: In order for students to take Academic Integrity seriously and act with integrity in their studies it is important that they receive clear and consistent guidance on what Academic Integrity means in their chosen area of study. Academic dishonesty can erode the quality of a program and reduce trust.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Consultation with students, faculty, and advisors on current issues related to academic integrity policy, procedures, practices, and effective communication	Report: Recommendations for the School of Computing on Academic Integrity	2024 March	Director

Goal: Review System Administrator Role and Supports

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area has experienced considerable growth and has previously explored the appointment of a part time Systems Administrator. Recruiting and retaining a candidate with the appropriate skillset who is also willing to work part-time may not be feasible. Since this time the area has grown considerably. Nonetheless, projected technology needs continue to change. Further investigation is required.

External Review Input:

Recommendation #13: *That the School of Computing hire a part-time Systems Administrator or train an existing staff member to be able to cover critical technician and Systems Administrator tasks for the School, in order to reduce the risk associated with a single person with this expertise.*

Rationale: The program’s reliance on a single technical support staff member poses a risk should anything happen to this single person. For a position such as this that requires someone to be on call 24/7, a back-up plan is recommended.

Commendation #7: *The Systems Administrator provides a wide variety of services for the School using a broader set of skills than a traditional network administrator position would have. UFV and the School is fortunate to have such a skilled person.*

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Review future systems administrator requirements	Recommendation: A sustainable plan for systems administration continuity	2024 September	Director / Systems Administrator

Goal: Expand Office Space

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Because faculty members are engaged in both online and face-to-face activities, faculty members in the area often use their offices to teach online, to attend both internal and external committee meetings and events, to meet with research collaborators, and to consult with students. It is not always possible for faculty members to avoid scheduling conflicts, which occur more frequently with the increased requirement to use office space for online instruction. The Teaching and Learning Centre has made some technology demonstration space available for booking by our faculty members. However, this space is a considerable distance from our offices and while it can mitigate some of the conflicts for those online activities that are scheduled in advance, but this is insufficient.

External Review Input:

Recommendation #14: *That the School of Computing and the Dean’s office provide sufficient office space for all hired sessional instructors and permanent faculty.*

Rationale: While office sharing and desk sharing can be an effective way to efficiently use limited space, it is not reasonable to expect 28 instructors to be able to provide quality office hours and work in a space designed to comfortably accommodate only a few. Furthermore, as the School shifts from the current over-dependency on sessional instructors to permanent faculty, additional office space will be needed for these hires.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Office space expansion request and rationale		Ongoing/cyclical	Director

Planning and Sustainability

Goal: Coordinate with Co-op

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area has increased coordination with Co-op representatives, inviting their participation in the external advisory meetings and the department meeting, in addition to joint event planning this upcoming term.

External Review Input:

Recommendation #15: *That the School of Computing work with the Career Coordinator to develop a mechanism by which feedback from Co-op employers can reach the School of Computing, respecting student confidentiality appropriately.*

Rationale: This will allow faculty and sessional instructors to hear how well their students are doing in industry and whether any adjustments need to be made to the curriculum.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
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Establish annual co-op event for students		Annually starting Winter 2024	Industry Chair/Liaison
Include Co-op in external advisory		Ongoing/cyclical	Industry Chair/Liaison

Goal: Review the need for computer lab upgrades

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

Not all courses requiring computer labs are delivered by the School of Computing, and therefore do not present with the same technology requirements. Additionally, within the area, there is variability between what a first-year course might require and what a specialized upper-level course might require. Since the area has priority scheduling for most computer labs across the institution, and since in any given time block courses are timetabled to span both upper and lower-level courses, provisioning labs with a variety of different capabilities is appropriate.

The main exception to this is if late additions are made to the timetable. In such cases, finding an opening is challenging, and this may be an indicator that computer lab capabilities require upgrading, subject to virtualization and cloud computing trends.

External Review Input:

Recommendation #16: *That the School of Computing advocate for upgrades to general computer labs across campus to make them more consistent in their specifications.*

Rationale: This would make it easier for scheduling classes and create more places where students can complete their homework.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Determine Computer lab capabilities	Report: Computer labs - inventory and capabilities (relevant supporting document for recommendation #10 above)	2024 March	System Administrator

Goal: Update and explore virtualization of networking curriculum

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The networking lab in ABD250 is being pruned of some older networking equipment, and the freed-up rack space is being used for new requirements such as High Performance Compute (HPC) equipment. This reflects a shifting trend in the requirements of the program, and while this is only an incremental reduction in network equipment, we recognize a clear increase in the use of virtualized networking curriculum resources, particularly given the prevalence of online and blended learning.

External Review Input:

Recommendation #17: *That the School of Computing assess how much of their networking curriculum can and should be virtualized and how much of it should remain on physical hardware to provide the best student learning experience.*

Rationale: An assessment with industry input will help the school determine how much of the networking curriculum can be virtualized, which will dictate how much of the physical resources need to be upgraded. Once that is known then timelines and resources can be allocated.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Review virtualization of networking curriculum	Report / Course outline changes	2024 Oct	Course Coordinators

Goal: Hire a “virtualization champion”

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area recognizes the need for a faculty member with expertise with virtualization and cloud service integration, and postings include specification of related skills.

This is closely linked to recommendation #9.

External Review Input:

Recommendation #18: *That the School of Computing, when recruiting new permanent faculty (Recommendation #9 above), consider searching for someone to be a “virtualization champion”, who can provide additional direction to the Systems Administrator to make better use of the School’s infrastructure-as-a-service functionality.*

Rationale: The existing infrastructure-as-a-service is underutilized. With proper guidance it can take on more of a role in delivering the curriculum.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Hiring		Ongoing/Cyclical	Selection Advisory Committee (SAC)

Goal: Maintain alignment with strategic plan

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The area continues to move forward guided by the strategic plan, including a coordinated event at least once per year designed to take stock of our progress on our strategic goals, and to align our collective efforts.

External Review Input:

Commendation #8: *The School of Computing has devoted significant time in the past year to developing a 5-year Strategic Plan. It was good use of their time to look at the School holistically rather than by individual credentials. The committee appreciated it.*

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Align with strategic plan	Strategic Plan Alignment activity	Each February and October	Director / Faculty

Other

Goal: Develop a statement on fair and consistent grading and review alignment with instructors.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

The members of the School of Computing will explore what consensus can be reached on recommendations for fair and consistent grading practices, in consultation with the dean’s office, to be shared with all faculty who teach in the area.

External Review Input:

Recommendation #19: *That the School of Computing investigate and develop a mechanism to provide some oversight for course grades to ensure there is consistency and fairness in the grading and evaluation of course learning outcomes.*

Rationale: The School of Computing needs to continue to uphold the rigour and reputation of the BCIS program within the community and the world. Having consistency and uniformity of standards among all teaching faculty helps maintain that reputation.

Recommendation #20: *That the School of Computing, working together with the Dean’s office, determine appropriate and best practices for how to monitor and mentor new faculty and sessional instructors to mitigate potential grade inflation and provide consistent approaches to applying academic integrity policies.*

Rationale: The School has been consistently delivering quality students into the workforce and it needs to ensure that it continues in that tradition. Mentoring new faculty and sessional instructors, whether through the course coordinators or some other means, is just a good human resources practice.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Develop recommendation on fair and consistent	Resolution at School Meeting	April 2024	Director / Faculty

grading, in consultation with the dean's office			
Distribute statement	Copy of statement included in resources distributed to all faculty teaching in a given term	Each term	Staff
Review effectiveness and revise approach as needed	Report to department on shifts in success analysis	Annually	Director

Goal: Diversity students in the program

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

When there is increased diversity the learning experience is enhanced, and the area is reduced to less risk. However, while this may require coordination with international recruitment, coordination with admissions and alignment with the institution's strategic enrolment plan are both key.

External Review Input:

Recommendation #21: *That the School of Computing work with international recruitment to diversify the recruitment strategy so it is less reliant on a small number of geographic regions.*

Rationale: Diversifying the international student body reduces the risk from international political (and otherwise) incidents. It also encourages students and faculty alike to become better global citizens.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Develop diversification plan in alignment with the institutional strategic enrolment plan		2024 June	Director / Faculty

Goal: Develop systematic timely updates to official course outlines.

Describe the rationale for the Goal and provide evidence supporting the necessity for the Goal.

There are competing demands for finite time and resources. The area currently is prioritizing core/required courses that are most out of date.

External Review Input:

Recommendation #22: *That, until UFV develops a universal process for ensuring the timely update of all course outlines, the School of Computing develop its own system to ensure that course outlines are updated regularly.*

Rationale: Curriculum needs to be regularly updated and there should be a systemwide process to remind faculty that it is time.

Tasks to complete the goal (add rows as needed):

Identify the task(s) and describe the specific steps needed to address the goal, including key milestones and measurable outcomes. Identify potential issues and barriers, if relevant.

Task	Key Milestone or Measurable Outcome	Timeline	Assigned to
Revise course outline	Course Outline revision approved	Ongoing/cyclical	Course coordinators / faculty

Dean's Summary Statement

The panel conducted a virtual visit on September 28 and 29, 2023, during which I had the opportunity to meet with them twice. These positive and constructive interactions reflected a supportive stance towards our BCIS program. However, the panel emphasized the critical need for faculty expansion to mitigate our reliance on sessional instructors, a point that merits our immediate attention.

Key Findings and Recommendations:

The panel strongly recommended increasing the number of full-time faculty members within the School of Computing. This expansion is crucial to support the program's growth and reduce our dependency on sessional staff – currently, approximately 65% of our courses are taught by sessionals. The other reasons for this recommendation are detailed in the attached BCIS program review report.

Review Report and Responses:

While I generally agree with the Director's responses, further clarification and details about potential synergies between the School of Business and the School of Computing would have been beneficial.

Action Plan reviewed and approved by:

Information verified by:

Department Head: Carl Janzen Date: 2024 Feb 13

Dean: Chris Schinckus Date: