

20 July 2017

Dr Malek Mouhoub, Professor and Head
Department of Computer Science
University of Regina

Dear Malek,

Per the Academic Unit Review policy, I am pleased to provide my response to the external reviewers' report following the recent Academic Unit Review (AUR) of the Department of Computer Science.

First, I wish to thank you and your colleagues in CS for undertaking the preparation of the self-study, and for hosting the review team. I also want to thank the external reviewers, Dr Mourad Debabbi of Concordia and Dr Peter van Beek of Waterloo, as well as the internal reviewer, Dr Maria Vélez Caicedo of our Department of Geology, for their helpful report.

Faculty and students; programming and collaboration

I note the reviewers' acknowledgement of the quality and breadth of programming offered by CS. They say "all indications are that the department offers strong, high-quality undergraduate programs" (6). They note that the department is able to offer "a rich set of third and fourth year elective courses ... including some that, while important and interesting, would be hard to find in much larger departments" (6). They speak positively of the department's efforts to ensure students have advance notice of future courses so that they are in a better position to plan their programs. They also speak positively of a "strong" co-op program at both undergraduate and graduate levels that assists students in their professional development.

All of this is good. The Department can take a great deal of credit for these successes and initiatives.

The reviewers note (3 ff) that CS offers five distinct undergraduate BScs. The total count of majors now exceeds 400, making CS one of the largest programs on our campus. At the same time, two of the five undergraduate streams – Software Systems Development and the combined major in CS and Mathematics – have small enrolments, and "there have been no BSc Honours graduates" in the last few years. A recent review of another program (Geography and Environmental Studies)¹ calls for a 40% reduction in the number of undergraduate programs offered, as well as a substantial reduction in the number of courses listed in the calendar. In the case of the present review of CS, the reviewers instead suggest that the Department collaborate with the Software Systems Engineering program area to jointly offer the BAsC in Software Systems Engineering.

By coincidence, just a few days ago *The Globe and Mail* ran a [profile](#) of Julie Payette, the next Governor-General, which included the following passage:

In the late 1980s, Julie Payette asked Graeme Hirst, a computer specialist at the University of Toronto, if she could take one of his courses. The answer was no. Ms. Payette was a graduate student in computer engineering and Prof. Hirst's field was computer science; she lacked the necessary prerequisites, he told her.

But Ms. Payette "does not take no for an answer," he recalled Thursday. Not only did she take the course, filling in the prerequisites in her spare time, Prof. Hirst ended up co-supervising her master's thesis in the area of computational linguistics.

¹ Available online [here](#). See page 2 for the recommendation.

Similarly, I note that Luigi Benedicenti, until recently a Regina faculty member in Software Systems Engineering, has recently assumed the position of Dean of Computer Science at UNB Fredericton. This appointment and the Payette story are perhaps timely nudges to consider a much closer link between CS and SSE – for the benefit not only of students, but of faculty collaboration and research partnerships both internal and external. The latter form part of recommendation 7.

At the graduate level, the four main recommendations involve programming (the Master's degree in Health Information Management), financial support for PhD students, and space. The last is very much a Department/Faculty issue, and I encourage the Department to consider the reviewers' advice, which strikes me as sensible. Similarly, if it is indeed possible to provide three years of financial support for PhD candidates with "the construction of ... packages that consist of ... TAs, RAs, marking, and teaching" (17), I encourage the Department to consider it.

With regard to the MHIM, as you will know we were well advanced in planning to launch the degree when in March 2017 the government made major cuts to the University's funding. Getting this degree up and running remains a priority to me. The question, however, is where we find the money to do so.

The targeted funding for CS mentioned in the 2017-18 Budget Letter from the Minister² and cited by the reviewers on page 13 of their report is part of the Department's \$2.712 million baseline operating budget for 2017-18, nearly all of which goes to salaries and benefits for current faculty and staff. The remaining \$100,827 for TAs and \$45,000 for discretionary expenditures are, I believe, fully committed, and in any case would not be sufficient to staff and launch the new program.

Research

I will defer to the Vice-President (Research) for more detailed comments on the reviewers' thoughts. It is heartening to see the reviewers affirm the Department's reputation for high-impact research. They note (p 10) that CS faculty "regularly publish in very respectable venues ... [and] have been awarded numerous best paper awards and four patents." I support the recommendations regarding broadening the range of external agencies to which application is made for research support, as well as the recommendation to "establish research partnerships with private and public sector organizations" (p 10).

The reviewers touch on the question of a more variegated approach to workload distribution (teaching/research/service) in light of widely varying activity in research and graduate supervision among faculty members. I understand that this conversation is well under way in the Faculty of Science.

Budget, positions, enrolment caps, tuition revenue, and cross-subsidization of programming

The main financial challenge facing this University and many others is the steadily declining percentage of operating expenditures covered by the annual operating grant from government. Put starkly, less money from government means that each year we need to raise more money from students simply to balance the budget. Given that salaries and benefits across the institution increase by several million dollars every year, as do costs for things like utilities and insurance, and given that more colleagues are choosing to work past the normal age of retirement, our capacity to provide net new resources, including new faculty positions, is severely constrained.

In this context – a context that we expect will continue for at least another two years in Saskatchewan – recommendations for additional positions and additional budget need to be evaluated very carefully.

² See Appendix 2 of <https://www.uregina.ca/orp/assets/budget/2017-18-budget-docs/2017-18%20Govt%20Funding%20Announcement%20Ltr.pdf>. You will note that this amount, \$817,900, is a 5% reduction from the \$861,000 allocated in each of the two previous fiscal years.

Departmentalized faculties such as Science carefully and collegially prioritize their internal budget allocations, and it is not appropriate for me to involve myself in those discussions.

However, when recommendations are made that CS's operating budget "be increased" (13) and that an additional tenure-track position be placed in the Department (12), considerable discussion will need to take place within Science as to *where those funds will come from*. Should they be transferred from another area of Science? From another area of the University? Should funding come from increased tuition rates? In discussing the issue, it is key to remember that such recommendations generally involve base-budgeted (permanent) commitments rather than one-time expenditures, and that attention therefore has to be given to the question of whether such base-budgeted increases are sustainable in the current fiscal climate.

Similarly, we need to have broad collegial discussion of moves to cap enrolments in areas of growth. The challenges posed by enrolment growth are real, and are very unevenly distributed across the institution. At the same time, as implied above, without growth in enrolment (and therefore in tuition and fee revenues) we will be unable to pay the salary and benefit bills *for our existing faculty and staff complement*, to say nothing of new positions. We will also find ourselves increasingly unable to maintain programming in academic areas that are important to us, but that have low enrolments and high costs.

Conclusion

There are a number of other recommendations in the report that time prevents me from touching on here. Nonetheless, I reiterate that I find the review as a whole both thoughtful and helpful. Many of its recommendations strike me as readily achievable, while others need to be considered in light of the fiscal reality we face in Saskatchewan today.

I hope you find these reactions to the external reviewers' report helpful, and would be happy to discuss them with you and your CS colleagues at any time that is convenient.

The next steps in the review process, as approved by CCAM, are set out in the Academic Unit Review policy, available online at <https://www.uregina.ca/policy/browse-policy/policy-OPS-130-005.html>.

CCAM will be in touch with you regarding these.

Sincerely yours,



Thomas Chase
Provost and Vice-President (Academic)

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