

Integrated Academic & Research Plan (IARP) Consultations

Response to the Discussion Questions from the

Department of Mathematics and Statistics

On behalf of the Department of Mathematics & Statistics, I am primarily making the following three suggestions.

- Introduce an undergraduate summer research scholarship / faculty grant that is internal to the University of Winnipeg. When awarding these awards/grants, new tenure-track faculty members, and active early-career researchers without external funding, should be given the highest priority.
- Standard two-year course load reduction for new tenure-track faculty.
- Introduce a less ad hoc, and more transparent, approach to the Accessibility Services accommodations procedure and introduce more faculty oversight into the determination of what is, and what is not, reasonable accommodation.

The first two suggestions fit within the framework of questions 4 and 5, and the third suggestion is tangentially related to question 11 from the IARP questionnaire. Below, I will expand on these suggestions and will attempt to provide some answers to all relevant “how” questions found in 4, 5 and 11. I hope that this makes the submission more readable than it would have been if I had haphazardly submitted responses within the questionnaire.

This response is based on our particular experiences in the Department of Mathematics & Statistics, however I expect that our experiences are almost certainly common to all departments in the Faculty of Science and may be relevant to departments in other faculties as well.

Undergraduate summer research scholarship / faculty grant

Members of the Department of Mathematics & Statistics believe that our teaching and research activities are best aligned when we are supervising undergraduate summer research projects. (In mathematics and statistics, I believe that these research opportunities provide the best possible form of “experiential learning”.) Although these supervisions involve a significant time commitment from faculty members, we pride ourselves on a history that includes the supervision of dozens of such summer research projects over the course of the last 10 years alone. These research projects provide an invaluable experience to our students, often leading to a publication in a refereed journal. They provide students with summer employment and many of our protégés have credited these research opportunities for kick starting their own successful careers in research.

At present, the only way that we are able to provide students with research opportunities in mathematics & statistics is through funding from personal NSERC Discovery Grants, as other funding agencies don’t typically fund our research areas. In the Department of Mathematics & Statistics, more than half of our faculty members in the professorial stream currently hold an NSERC grant. However, the success rate for these NSERC grants has dropped dramatically at (primarily) undergraduate institutions like ours since changes to the evaluation criteria were

implemented in the 2009 competition. As such, our department has fewer individuals able to supervise undergraduate students than we had 10 years ago, and we might anticipate fewer still in the years ahead.

With this in mind, we believe it would be helpful if funding could be found to allow for the introduction of undergraduate summer research scholarships that are internal to the University of Winnipeg.

This would obviously help our students, but it would also provide an opportunity for faculty members without grants to remain productive in the supervision of highly-qualified personnel, thereby making it possible for them to obtain NSERC funding in the future: with the current evaluation criteria employed by NSERC, the absence of the supervision of HQP automatically results in an unsuccessful grant application. But, without NSERC funding, faculty – at least in Mathematics & Statistics – are unable to supervise HQP. As such, we would certainly welcome the introduction of University of Winnipeg undergraduate summer research scholarships and faculty awards.

NSERC applicants are rated in three categories, “strength of the researcher”, “merit of the proposal” and “training of HQP”. An early-career researcher – a researcher within two years of the start date of an NSERC eligible position – is not rated on the supervision of HQP. However, if such an individual does not obtain NSERC funding within this time frame, they will be judged on the funding of HQP in their next application. As such, if they have not supervised students during this first two-year period – which is impossible without funding – they are doomed to never receive NSERC funding. Thus, new researchers are faced with a “two strikes and you’re out (for life)” rule.

How could this be achieved?

The viability of this proposal obviously depends on the availability of funds, but I think the investment will pay dividends in university reputation and student achievement. Others will be better equipped to find mechanisms to obtain the required funding, but if funding can be obtained, I propose *linking funding potential for an undergraduate research assistantship to a new faculty member’s start-up grant*. Perhaps this could be contingent on a positive recommendation from the department chair, dean and awards committee.

It would also be helpful if other faculty members could also apply for such an award, with priority going to faculty members – and especially junior faculty members – without external funding.

Standard two-year course-load reduction for new tenure-track faculty

The most valuable commodity for research productivity is time and, as noted above, research productivity is most important for new faculty as they attempt to secure external funding. As such, I think it would be helpful if a two-year teaching load reduction to 1.5 FCEs became the typical standard for new tenure-track faculty members. It is my impression that at larger universities, new faculty members typically have teaching loads of 0.5 FCEs in their first two years of employment (and receive start-up grants that are large enough to support student supervision).

In this case, I suppose that the “how” is as simple as making it a standard policy.

Introduce more faculty oversight and transparency to Accessibility Services

Members of our department typically work well with Accessibility Services (AS). We punctually deliver our tests to AS and accept the time accommodations that AS provides. Many of us have referred students to AS when we thought that they might benefit from their services.

Many of our department members do, however, often express frustration at the seemingly ad hoc nature of the requests received from AS. I recommend that a committee of academic faculty be formed to provide some oversight, and formality, to the process by which AS suggests potential accommodations to students. Individual instructors typically care to see their students succeed (without sacrificing academic rigour) and should, in my opinion, have the opportunity to play a role in the accommodation process.

At the University of Manitoba, for example, they seem to follow a much more formal process; see

<https://umanitoba.ca/student/saa/accessibility/media/Medical-Documentation-Form.pdf>

In particular, note that deferred tests and exams are negotiated on an as-needed basis and that deferral requires a specific medical note addressing the specific time period of the missed test or exam.

I hope that these suggestions are sufficiently detailed and helpful. If you have any questions, please don't hesitate to contact me.

Best regards,

Ross Stokke

Chair of Mathematics & Statistics