

Undergraduate Programs in Mathematics
Update on Unit Response to External Reviewers' Report & Action Plan
Programs Being Reviewed: BA in Mathematics
Completed by: Paul Mezo, Director of the School of Mathematics and Statistics
Approved by Dean: include title/date

Note: This document is made available for public posting on the Vice- Provost's website.

***** Denotes items that SQAPC would like the unit to pay particular attention to based on their past review of the original action item.**

External Reviewer Recommendation	Original Action Item	Owner & Timeline	Progress Update June 2021	Will the action described require calendar changes? (Y or N)
1. The School should continue with including geometry as an area of priority for upcoming searches, but expand the scope of types of geometer keeping in mind the fit within the current research areas. This will enhance the applicant pool.	In accordance with hiring priorities, and once more immediate needs in Actuarial Science are met, a request and rationale for this position will be prepared by the Planning Committee on behalf of the School.	Planning Committee 2 years (from December 2018)	<i>Hiring priorities were made by the Planning committee in consultation with the members of the School. A proposal was made, but not approved, in June 2020. Since then the School's governance and planning is being reviewed under the guidance of the Office of Quality Initiatives (OQI). The review is expected to finish in one year, at which time a new School plan should be available.</i>	
2. The School should reconsider having the hiring of an actuary into a regular faculty position as a priority. Rather, it should try to identify one or more professional actuaries, employed by agencies in the Ottawa region, with an interest in teaching specialized courses for the School. If solid connections can be established, this will provide a valuable bridge to the professional community. The focus for a tenure-track hire could be re-directed towards an allied area of statistics or financial mathematics.	In consultation with the Dean, the School is moving forward with a plan to hire full time faculty member in actuarial science and related areas.	Planning Committee	<i>The School has successfully hired an Assistant Professor in the area of actuarial science.</i>	

3. The School should consider developing a first year course on statistical computing as an option for students that could replace a current half credit course in computer science.	Under discussion within the Statistics and CAMS program committees who will in turn provide a detailed proposal to the Undergraduate Curriculum Committee for associated calendar changes.	Undergraduate Committee	<i>The School has introduced the recommended course, STAT 1500, to be offered in the winter term of 2022.</i>	
4. Learning objectives for each course should have more detail on specific topics and skills to improve the continuity in natural sequences of courses.	Survey of students will be conducted under auspices of OIRP. Based on the outcome of this, potential areas of concern will be identified and addressed.	Undergraduate Committee	<i>After several attempts, the School was informed that a survey is not possible. We will seek guidance on how to proceed from Andrea Thompson (Quality Assurance), as advised by the University Survey Committee.</i>	
5. Efforts should be made to incorporate presentations by students in select third year courses where it would enhance the learning experience.	Under discussion within all program committees, under the auspices of the Undergraduate Curriculum Committee. Based on the outcomes of these discussions, proposals for associated calendar changes will be submitted	Undergraduate Committee	<i>The School struck an ad hoc committee in early 2020 to explore opportunities for students to give presentations. The committee was set to investigate whether other units at Carleton have something akin already in place. The committee stopped upon the arrival of the pandemic. Work will resume once the OQI review is complete.</i>	
6. The School is encouraged to provide a package of courses along the lines of Data Analytics which might be attractive to students who might want to be employed as Data Scientists.	Under discussion by the Statistics Program Committee who will in turn report and provide proposals for calendar changes to the Undergraduate Committee.	Undergraduate Committee	<i>As mentioned under item 3, STAT 1500 has been introduced and is part of the recommended package. Further options will be addressed as part of the OQI review underway.</i>	
7. The issue of common first year requirements and the nature of these courses is intertwined with several related issues. The School should take a unified approach to redesigning the first and, to some extent, second year courses and requirements.	Under discussion by the Mathematics Program Committee who will in turn report and provide proposals for calendar changes to the Undergraduate Committee	Undergraduate Committee	<i>As recommended in the reviewers' report, first-year honours courses have now been converted from full-year to two-semester courses. STAT 1500 is now part of the first-year requirements for students in statistics. Further changes will be made according to the recommendations of the OQI review and future program committees.</i>	
8. Bring service teaching closer to the central mission of the School. This likely involves devoting more of the teaching responsibilities of permanent faculty to these courses. The budget implications can be mitigated perhaps by replacing contract positions with teaching-only permanent positions.	Hiring process for Instructor in Statistics is under way, expect position to be filled for July 2019. Further teaching needs are being discussed and will be incorporated into School's Strategic Plan. In consultation with the Dean, requests for further such positions may be warranted	For current hire: Hiring Committee For longer term needs: Planning Committee	<i>The School hired an Instructor in statistics in 2019. A working group on improving service courses has been established as part of the OQI review. The School's plan is expected to include the recommendations of the working group (see item 1).</i>	
