

Mathematics and Statistics Program Review

Faculty of Science

Dean's Summary

Submitted by:
Ora Steyn, Dean of the Faculty of Science

Accepted by:
Senate in February 2012
Academic Planning and Priorities Committee in January 2012

The purpose of the Program and Unit Review focused on the following areas:

1. Student Success (vision for ideal graduate, student culture, engagement and success, personal growth and advising)
2. Program goals and outcomes for both areas(vision for future goals, program mix, future graduate credentials, key competencies, quality, breadth and mix of lecture and lab courses, methodologies, options for students , environmental sustainability, needs of minority groups and the community)
3. Program viability and growth opportunities (vision for the future, entrance requirements, class sizes)
4. Research, Scholarly Activity, Community Involvement/Service (vision for research, student involvement, integration of research and teaching)
5. Administrative setting(role on three campuses, student mobility, administrative context)

In accordance with Policy 210.15 Academic and Program Unit Reviews, Dean of Science provided the Mathematics and Statistics Department with a scope letter dated October 4, 2010. The Department delivered their finalized self study to the Dean of Science in May 2011. On September 29th and 30th, the site visit took place.

The reviewers met with faculty, staff, administrators, students and alumni. The committee was provided with the Department's Self Study, the university's Strategic Plan, curriculum vitae of faculty and staff and material from Institutional Research. The review team provided their final report on October 17th, 2011. The Department had a retreat in early December with a follow-up meeting the first week of January.

From the external reviewers' report:

"The strategic plan of the University of the Fraser Valley states UVF will: "provide the best undergraduate education in Canada; be a leader of social, cultural, economic, and environmentally-responsible development in the Fraser Valley; and be innovative, entrepreneurial, and accountable in achieving our goals". The Mathematics and Statistics Department is clearly focused on achieving these objectives. The department has a strong commitment to education."

The departmental response and timeline to the external report is attached in a spreadsheet. Basically all the recommendations of the external panel were accepted by both the department and the dean.

Mathematics Program Review

	Recommendations	Tasks to complete	Proposed completion date	Update Dec 15, 2011
1	That the Mathematics and Statistics Department proceed with the creation of life sciences calculus stream.	Approval of new course outlines. This is underway, going to pre-UPAC for Nov 11, and through committee process thereafter.	Through final committees January '12	Submitted to pre-UEC week one of January
2	That the department (i) continue to monitor the success in Math 110, including entrance and exit requirements and (ii) use longitudinal studies to follow Math 110 student through their UFV career with an aim to better understand the role of the course.	Commission IR study. Committee has been formed	Winter '12	Ongoing
3	That the university continue to support the Math Centres, and work towards finding a larger space to house the Abbotsford centre.	A university task. We will represent this need through budget requests and other lobbying	When SUB built	Ongoing
4	That the university support the department in implementing the Certificate in Data Analysis.	A university task. The certificate will go to UEC late November.	December '12	Certificate is approved, funding has been approved, we are timetabling for a Sept '12 start. We are working on publicity materials now (January)
5	That the university support the department in implementing the minor in Applied Statistics.	This minor is mostly developed, but full proposal needs to be written. DPRC approval is required.	12-'13	Ongoing. The statisticians will work on the proposal. This may be slowed down a little by sabbaticals
6	That the course Math 315 be required for the Applied Statistics minor and the data Analysis Certificate.	Revisions of certificate. It is too late to revise the certificate now. We can revisit this in '12-'13 after the certificate is offered.	12-'13	CIS and Math need to form a curriculum working group to govern the certificate, as it is a joint offering. This will be set up Winter '12, and that committee can then consider the Math 315 issue.

7	That the content of Math 270 be reviewed, with an aim to reduce the number of statistical analysis techniques.	Statistics committee meeting will deliberate on this, and write-up new outline if agreed.	Winter '12	Statisticians will review 270 Winter '12
8	That the courses in statistics be relabeled from MATH to STAT.	December '11 meeting of department will deliberate on this. If approved, many courses will have to go through the committee sequence.	Winter '12, if approved.	The department has approved the change. A subcommittee has been formed to consider which courses could receive both the Math and Stat appellation.
9	That the department identify a core collection of upper level courses that will run on a regular schedule.	December '11 meeting of department will deliberate on this.	December '11 for decision, Winter '12 for necessary approvals.	We have constructed a three year timetable for our upper level offerings, which will facilitate student planning. We will maintain this, so that students will always know, three years in advance, what is planned to be offered.
10	That the department consider a broader list of course requirements for the Mathematics Major.	December '11 meeting of department will deliberate on this.	December '11 for decision, Winter '12 for necessary approvals.	The degree requirements have been created for the major, with final approval schedule for Feb '12. The approval process will follow, with the usual 18-month delay for program changes.
11	That the department review the upper level courses currently in the calendar, including a discussion about removing courses that are never offered.	December '11 meeting of department will deliberate on this.	December '11 for decision, Winter '12 for necessary approvals.	Finished December '12. A number of upper level courses have been removed, and several others revised to improve their accessibility and appeal to students. The calendar removal process has been started, and subcommittees are working on the course revisions
12	That the department examine the possibility of using the seminar course and selected topics courses to provide enhanced offering for upper level students.	We do this now, and will continue.	Done	Done

13	That the department consider creation of an honours program	We had already designed this, but it was not approved. We will revisit the proposal, and have a committee to do so and revise the proposal.	Winter '12	Winter'12. A subcommittee has been charged with this task.
14	That the university support the department's request to hire a full-time statistician.	A university task. We will represent this need through budget requests and other lobbying	? Budget decision for '12-'13	A university task.
15	That the university support mathematics and statistics instruction with classrooms dedicated for the Mathematics and Statistics Department's use, outfitted with the necessary software, lab space, projectors, and other teaching resources.	A university task. We will represent this need through budget requests and other lobbying	When SUB built?	A university task. When SUB built?
16	That the university and the department support both applied and pure research opportunities for students.	We will continue to offer these research opportunities, and will continue to lobby the university to support this through course releases or other forms of support.	Ongoing	Ongoing
17	That the department continue to adapt some of its outreach activities to specifically target First Nations students through consultation with the First Nations communities and the campus Aboriginal Access Centre.	Consult with Aboriginal Access Centre. Schedule a Math Mania at a First Nation school Consult with Jane Cannon who had begun contacts on Seabird Island.	Winter '12	Ongoing. Susan Milner has begun with some consultations.