



**To: Faculty Council**

**From: Professor C. Yip  
Chair, Admissions Committee**

**Date: February 8, 2011 for March 8, 2011 Meeting**

**Item: Changes to Undergraduate Admissions Requirements for Ontario High School Students**

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**Background:**

The current admissions requirements for Ontario High School students are:

- English (ENG4U),
  - Chemistry (SCH4U),
  - Physics (SPH4U),
  - Calculus and Vectors (MCV4U)
- and one of:
- Advanced Function (MHF4U)
  - Mathematics of Data Management (MDM4U)
  - Biology (SBI4U)
  - Earth and Space Science (SES4U)
  - Geometry and Discrete Mathematics (MGA4U)
- one additional U or M course

Though Advanced Functions is listed as one of list courses, it serves as a pre-requisite to Calculus and Vector. In both 2009 and 2010 only two registered students from the Ontario Secondary system did not have the course. Significantly fewer students completed other optional requirements: Mathematics for Data Management (38%), Biology (38%), Earth and Space Science (5%).

A review of the admissions requirements of accredited Engineering programs in the province of Ontario showed that most institutions require Advanced Function but some do not include it in their admissions average. Other major Canadian institutions have similar admissions requirements to our current requirements but they include Advanced Functions as being a required course.

An analysis of student performance was conducted over the past three years. It was found that approximately 14% of students who entered the Faculty had a first term average below 60%. In comparison, 34% of those students with a mark below 80% in Functions achieved less than 60% in their first term (last year this figure was 38%).

**Structure:**

The Committee on Admissions proposes that the Advanced Functions (MFH4U) be made a required course for Ontario High School applicants and that the one of Advanced Functions, Mathematics of Data Management, Biology, Earth and Space Science or Geometry and Discrete Mathematics requirement be removed.

The admissions requirements would then read as follows for Ontario High School students:

- English (ENG4U),
- Chemistry (SCH4U),
- Physics (SPH4U),
- Calculus and Vectors (MCV4U),
- Advanced Function (MHF4U),
- one additional U or M course

Another important note that the admissions requirements for other Canadian jurisdictions have a requirement for the completion of two specified Mathematics courses. This proposed change would bring Ontario students in line with applicants from other areas in the country and also back in line with the Faculty's historic admissions requirements of students presenting two mathematics courses for admission.

**Process:**

The admissions committee is comprised of representatives from each program and is supported by the Engineering Undergraduate Admissions Office who provides expertise in national and international education systems.

**Programs:**

This proposal would apply to all undergraduate programs.

**Proposal/Motion:**

THAT the Faculty approve the recommendation to make Advanced Functions a required course for Ontario High School students and eliminate the "one of Advanced Functions, Mathematics of Data Management, Biology, Earth and Space Science or Geometry and Discrete Mathematics" requirement.