



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

Revised May 25, 2009 Report # 3229

To: Faculty Council

From: Professor D.G. Allen
Chair, Working Group on Cross Faculty Program Office

Date: May 27, 2009

Item: Faculty of Applied Science and Engineering Cross-Disciplinary Programs Office

Recommendations:

That the Faculty of Applied Science and Engineering:

- Create a Cross-Disciplinary Programs Office to provide leadership, administration and initiation of programs that cut across the Faculty of Applied Science and Engineering effective July 1, 2009
- Replace the Chair of the Division of Environmental Engineering and Energy Systems position on the Faculty's Curriculum and Executive Committees with an Associate Dean of Cross-Disciplinary Programs effective September 1, 2009

Background:

Over the past few years, the Faculty of Applied Science and Engineering has introduced several new Faculty-wide minors. The following Faculty-wide programs are available to our students effective Fall 2009:

- Bioengineering Minor
- Environmental Engineering Minor
- Sustainable Energy Minor
- Certificate Program in Entrepreneurship
- Certificate Program in Preventive Engineering and Social Development
- Collaborative Graduate Program in Environmental Engineering

- Certificate in Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) for Graduate Students

In addition, the following Faculty-wide minors/programs are being developed or are under discussion:

- Globalization Minor
- Engineering and Public Policy Minor

After extensive discussion among the Faculty leadership, it was recognized that there are significant advantages to providing an office that would provide leadership, administration and initiation of the undergraduate programs that cut across the Faculty. Therefore, a working group was appointed to consider the Faculty's needs for the administration of its minor and certificate programs, the administration of the cross-faculty graduate programs and the role of the existing Division of Environmental Engineering and Energy Systems. The working group consisted of: Grant Allen, Vice-Dean Undergraduate (Chair); Chris Damaren, Vice-Dean Graduate Studies; and, Barbara McCann, Faculty Registrar.

The working group drafted a proposed structure of the office and then consulted with several individuals, including: Professor Bryan Karney (Chair-Division of Environmental Engineering and Energy Systems); Sharon Brown (Administrative Assistant for the Division of Environmental Engineering and Energy Systems); Professor Peter Zandstra (Director-Bioengineering Minor); Seiwan Chan (Administrative Assistant for the Bioengineering Minor); Professor Molly Shoichet (past Director-Bioengineering Minor); Professor Joe Paradi (Director-Centre for Management of Technology and Entrepreneurship) and, Professor William Vanderburg (Director-Centre for Technology and Social Development). The concept of the office was discussed at a Faculty Curriculum Committee meeting on March 17, 2009 and a draft structure was presented to the Faculty leadership (Chair and Directors) on April 21, 2009. Overall, there was very strong support for the creation of such an office as described below.

Proposed Structure: Cross-Disciplinary Programs Office:

Responsibilities:

Provide leadership, administration and initiation of programs that cut across the Faculty of Applied Science and Engineering. Normally the office will focus on programs available to undergraduate students that fall outside the administration and leadership of Options provided by Engineering Science. Programs administered by this Cross-Disciplinary Programs Office are available to all students in the Faculty of Applied Science and Engineering, subject to approval from their home Department/Division.

The specific programs that would be administered by the office include:

- Bioengineering Minor
- Environmental Engineering Minor (starting Fall 2009)
- Sustainable Energy Minor (starting Fall 2009)
- Certificate Program in Entrepreneurship
- Certificate Program in Preventive Engineering and Social Development
- Collaborative Graduate Program in Environmental Engineering¹
- Any new curricular certificates/minors that develop in the future

Specific responsibilities of the office include:

- Provide a “one stop shop” for students to learn about programs that cut across the Faculty
- Communicate the availability of cross-disciplinary programs to students, faculty, the University and the general public
- Administer regulations; provide student academic guidance/advising
- Verify completion of requirements for the awarding of certificates/minors
- Be the voice for these programs within our Faculty (e.g. Curriculum Committee, Executive Committee, Registrar’s Office, Departmental Offices, etc.)

Co-curricular “certificates” (e.g. Leaders of Tomorrow) that do not directly involve courses in our curriculum would not normally be the responsibility of this office. However, it would be desirable that this office would be knowledgeable of such activities so as to provide the most complete information for our students. Also, Graduate programs such as ELITE, Prospective Professors in Training (PPIT) and the Skoll MBA would continue to be the responsibility of the Vice-Dean Graduate Studies.

Leadership:

The office will be lead by an Associate Dean Cross-Disciplinary Programs. This would be a 50% appointment, reporting to the Dean and with day-to-day accountability to the Vice-Dean Undergraduate. She/he would hold ex-officio membership of the Curriculum and Executive Committees and possibly serve concurrently as a minor or certificate Program Director. The Associate Dean will receive support from an administrative assistant whose role will include counseling students, verifying program requirements, office budget, communications, office management and secretarial support.

Management:

Subject to the approval of the Dean, the Associate Dean will identify Program Directors who will provide academic advice on programs administered by the office (e.g. Director of the Bioengineering Minor, Director of the Sustainable Energy Minor, Director of the Environmental Engineering Minor, etc.). Program Directors would have a role that is

¹ Though the Collaborative Graduate Environmental Engineering program is not an undergraduate program, we propose to include it in this office for the efficient operation of both the graduate and undergraduate Environmental Engineering offerings currently administered by the Division of Environmental Engineering and Energy Systems

similar to Option Chairs in Engineering Science. Where appropriate, the Associate Dean may also serve as a Director of a minor(s) or certificate(s) program.

The Associate Dean will form and Chair an Advisory Committee to advise him/her on program modifications, evolution, etc. that will meet at least once per year. The composition of the Advisory Committee will be proposed by the Associate Dean for approval by the Dean in consultation with the Vice-Dean Undergraduate. Ideally the Advisory Committee would include all the Program Directors and Vice-Dean Undergraduate.

Approvals for any new programs or program changes would be introduced to Faculty Council through the appropriate standing committees (e.g. Curriculum Committee for Undergraduate matters, Committee on Graduate Education and Research for Graduate matters) in consultation with the appropriate Departments and/or Institutes.

Division of Environmental Engineering and Energy Systems:

Given the strategic importance of Energy and the Environment to the Faculty, the University and society, we propose that the Division of Environmental Engineering and Energy Systems continue to function as a focal point for the Faculty's research and teaching in these disciplines, highlighting and promoting our work. Initially, the Chair of the Division would continue to lead the minors, programs and options related to Environmental Engineering and Energy. Specifically, the Chair would serve the Cross-Disciplinary Programs Office as the Program Director of the Minor in Environmental Engineering and the Minor in Sustainable Energy. The Chair would also continue to serve as the Energy Systems Option Chair for Engineering Science and the Director of the Collaborative Graduate Program in Environmental Engineering. The Chair of the Division would no longer serve on the Curriculum Committee; that role would be filled by the Associate Dean responsible for the Cross-Disciplinary Programs Office. In the longer term, the Faculty will examine the best structure (e.g. the formation of a Centre) to ensure that we maintain and enhance our activities and visibility in research and teaching in Energy and Environmental Engineering.

Resource Implications:

At steady state the proposed office is expected to produce cost savings through consolidation of current and proposed minors and thereby providing more efficient and effective delivery of services to our students. The proposed structure will have one primary academic leader (the Associate Dean at a 50% appointment) and one assistant rather than several leaders, each with administrative support.

Timeline:

We propose that the Cross-Disciplinary Programs Office start as of July 1, 2009. Recommendations for a revised structure for the Division of Environmental Engineering and Energy Systems will be brought forward to Faculty Council in 2009-2010.