Cristina Amon, Dean

MEMORANDUM 2007/08-05

**To**: Members of the Faculty of Applied Science and Engineering

From: Cristina Amon, Dean

**Date**: January 14, 2008

**Re:** Task Force on Engineering Globalization

Last Fall, the Faculty's senior leadership team held a one-day retreat to discuss strategic planning for the Faculty. One of the recommended outcomes was the need for a continued dialogue in recognition of the rapid pace of globalization and the increasing competition and changing workplace that our graduates will face in their future. It is our responsibility, in both our research and our educational mission, to help address serious global problems such as climate change, hunger, poverty, energy and the environment, clean water supplies and health.

Accordingly, we have created a Task Force to contemplate and recommend on the following two questions:

- 1. How do we better prepare our graduates for a globalizing workplace?
- 2. How should our research be influenced by global challenges and our responsibility to address those challenges?

In considering these, the Task Force will seek to undertake the following:

## Curriculum and Student Experience

- 1. Develop an integrated strategy for incorporating globalization concerns in our curriculum and extracurricular offerings suited to the rapidly globalizing environment that our graduates will face, thereby continuing to demonstrate national and international leadership in engineering education. Consult with Faculty constituencies throughout the process.
- 2. Conduct an inventory of current practices in the area of globalizing engineering education, and identify the Faculty's opportunities and challenges.
- 3. Building on existing initiatives within the Faculty and the rest of the University, develop specific recommendations regarding curriculum and student experience that exemplify the strategy to be proposed.
- 4. Propose a communication strategy to highlight initiatives and opportunities.

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## Research

- 1. Conduct an inventory of current research with global content.
- Propose a communication strategy, targeting both internal and external audiences, to highlight global issues and related internal activities, and to generate thoughtful debate about how the Faculty's research enterprise should be guided by global factors.
- 3. Conduct review of best practices and make specific recommendations for mechanisms to encourage an international outlook, including the effect of globalization on the engineering profession, funding sources, and international competition in our fields.

It is anticipated that the Task Force will make its report by the end of the current term.

I am grateful to the following who have agreed to serve as members of this Task Force:

Yu-Ling Cheng, Professor, Chemical Engineering and Applied Chemistry (Chair) Bryan Karney, Professor, Civil Engineering, and Director, Division of Environmental Engineering and Energy Systems

Murray Metcalfe, Alumnus

Lisa Romkey, Lecturer, Curriculum, Teaching and Learning, Division of Engineering Science

Zhirui Wang, Professor and Associate Chair, Graduate Studies, Materials Science and Engineering

In drafting the terms of reference for this Task Force, we also received counsel from Chairs and Directors as well as Paul Cadario, Alumnus, and Miranda Cheng, Director, International Student Exchange Office.

Comments and suggestions for the Task Force are welcome and can be sent to dean@ecf.utoronto.ca.