APPENDIX "A" TO REPORT NUMBER 181 OF THE ACADEMIC BOARD – October 11, 2012



### OFFICE OF THE VICE-PROVOST, ACADEMIC PROGRAMS

TO: Committee on Academic Policy and Programs

SPONSOR: Cheryl Regehr

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DATE: August 17, 2012 for September 19, 2012

AGENDA ITEM: 2

# ITEM IDENTIFICATION:

Proposal for a new professional graduate degree program, the Master of Engineering in Cities Engineering and Management (M.Eng.C.E.M.), by the Department of Civil Engineering in the Faculty of Applied Science and Engineering

## JURISDICTIONAL INFORMATION:

The Committee on Academic Policy and Programs has the authority to recommend to the Academic Board for approval new graduate programs and degrees. (AP&P Terms of Reference, Section 4.4.a.ii)

PREVIOUS ACTION TAKEN: None

# **HIGHLIGHTS:**

This is a proposal for a new professional master's program in Cities Engineering and Management. The program will be housed in the department of Civil Engineering in the Faculty of Applied Science and Engineering and will confer the professional degree designation, Master of Engineering in Cities Engineering and Management (M.Eng.C.E.M.).

The proposed M.Eng.C.E.M. is a sixteen month full-time program with an extended full-time option intended for students with an undergraduate degree in engineering or applied science with at least one year of work experience. The program is designed to prepare students to approach urban infrastructure innovation and management with a balanced mix of technical expertise and a comprehensive understanding of cities, including their economic, operational, environmental, social and political challenges. It is designed explicitly to break down knowledge silos that provided deep expertise but little contextual breadth and instead will prepare engineers and other technically trained professionals to lead innovation in cities, government, and other infrastructure-supporting organizations, to address the pressing issues that face cities, and to

Master of Engineering in Cities Engineering and Management

create innovative responses that are environmentally responsible, socially engaging and economically feasible.

The program consists of three components: Theme A infrastructure -related engineering courses that focus on providing a foundation for evidence-based decision making, Theme B courses related to complex systems in cities that provide the insight needed to drive changes in policy, affect social change, impact urban economic well-being, and become world leaders, and an integrative practicum that allows students to apply the technical knowledge they have learned to a complex problem related to cities. The practicum (Theme C) provides students with the opportunity to engage with real city challenges, and synthesize and apply their knowledge.

The proposed program is the result of a highly consultative process involving faculty whose research involves cities from a number of other disciplinary areas including the School of Public Policy and Governance.

The program was subject to external appraisal on July 24, 2012 and received a very positive report from Dr. Amr Elnashai (University of Illinois at Urbana-Champaign), Dr. Slobodan Simonovic (Western University) and Dr. Reza Vaziri (University of British Columbia). The final proposal received approval from the Faculty of Applied Science and Engineering Council on September 7, 2012.

**FINANCIAL AND/OR PLANNING IMPLICATIONS:** Any new/additional financial obligations resulting from this program will be met at the Faculty/Divisional level.

#### **RECOMMENDATION:**

Be it recommended to the Academic Board:

THAT the proposed Master of Engineering in Cities Engineering and Management (M.Eng.C.E.M.), as described in the proposal from the Faculty of Applied Science and Engineering dated August 2, 2012, be approved effective for the academic year 2013-14.