



**FOR APPROVAL**

**PUBLIC**

**OPEN SESSION**

**TO:** Academic Affairs Committee

**SPONSOR:** Amrita Daniere, Vice-Principal, Academic & Dean  
**CONTACT INFO:** 905-828-3719, [vpdean.utm@utoronto.ca](mailto:vpdean.utm@utoronto.ca)

**PRESENTER:** Soo Min Toh, Director, Institute for Management & Innovation  
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**DATE:** April 29, 2019 for May 6, 2019

**AGENDA ITEM:** 3

**ITEM IDENTIFICATION:**

Institute for Management & Innovation Executive (IMIx) Not-for-Credit Certificates

**JURISDICTIONAL INFORMATION:**

Under section 5 of its *Terms of Reference*, the Academic Affairs Committee is responsible for new graduate diploma and undergraduate certificate programs, and the closure of such programs, as required by the University's [Policy on Certificates \(For-Credit and Not-For-Credit\)](#).

**GOVERNANCE PATH:**

1. Academic Affairs Committee [For Approval] (May 6, 2019)

**PREVIOUS ACTION TAKEN:**

No previous action was taken on this proposal.

**HIGHLIGHTS:**

The Institute for Management & Innovation (IMI) at the University of Toronto Mississauga (UTM) is a cross-disciplinary institute dedicated to producing mission-focused managers and future leaders with a combination of management skills and depth in their chosen field. IMI provides an academic platform to foster close interactions and share expertise between faculty, staff, students, and their community partners. IMIx, the Institute's branch for executive education and programming, aims to further IMI's mission through a series of professional courses that address today's business challenges and opportunities. In addition to offering stand-alone professional courses, IMIx is proposing a set of not-for-credit (category 3) certificates in the areas of Strategy & Innovation; Strategy & Critical Thinking; and Data Analytics.

In a series of three to five courses per certificate, these certificate programs will facilitate professional development by enhancing effectiveness, stimulating critical thinking, and fostering value creation. Through lectures, case studies, and professional demonstrations, students will enhance their learning and be enabled to transform their organization and community in meaningful ways. All courses will be taught by UTM faculty or stipend lecturers who are experts in their field. Students will have three years to complete the requirements of each certificate program.

Development of all IMix courses and proposed certificate programs was done in consultation with the IMix Academic Director, IMI Director, IMI Curriculum Committee (which includes all IMI Program Directors), and the Chair of the Department of Management (UTM).

**FINANCIAL IMPLICATIONS:**

There are no net implications for the campus' operating budget.

**RECOMMENDATION:**

Be It Resolved,

THAT the proposed Institute for Management & Innovation Executive not-for-credit certificates, as recommended by the Vice-Principal, Academic & Dean, Professor Amrita Danieri, in the proposal dated April 23, 2019, be approved, effective May 7, 2019.

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**DOCUMENTATION PROVIDED:**

Proposal to Create a Not-for-Credit Completion Certificate

# Proposal to Create a Not-for-Credit Completion Certificate

Category 3 Not-for-Credit Certificates as outlined by the [Policy for Certificates \(For-Credit and Not-For-Credit\)](#) should align with the protocols set out in the [Guidelines for Continuing, Professional and Executive Education](#).

The creation of the certificate is reported to the VPAP office after approval.

<b>Proposed certificate name:</b>	<b>Certificate in Strategy &amp; Innovation</b> <b>Certificate in Strategy &amp; Critical Thinking</b> <b>Certificate in Data Analytics</b>
<b>Unit:</b>	Institute for Management & Innovation (IMI)
<b>Academic division:</b>	University of Toronto Mississauga (UTM)
<b>Dean's office contact:</b>	Yen Du Program & Curriculum Officer <a href="mailto:Yen.du@utoronto.ca">Yen.du@utoronto.ca</a>
<b>Version date:</b>	April 23, 2019

## 1 Summary

The Institute for Management & Innovation (IMI) at the University of Toronto Mississauga (UTM) is a cross-disciplinary institute dedicated to producing mission-focused managers and future leaders with a combination of management skills and depth in their chosen field. IMI provides an academic platform to foster close interactions and share expertise between faculty, staff, students, and their community partners. IMIx, the Institute's branch for executive education and programming, aims to further IMI's mission through a series of professional courses that address today's business challenges and opportunities. In addition to offering stand-alone professional courses, this proposal seeks to establish a set of not-for-credit (category 3) certificates to acknowledge achievement in three focused areas:

### 1. Strategy & Innovation

This Certificate will prepare executives and managers who are in functional positions in marketing, production, and product development to understand strategic thinking, which coordinates and focuses all functional activities, with the specific purpose of encouraging innovation. Strategy and innovation are fundamental to successful organizations and are a specific focus of UTM faculty and IMI's Master of Management & Innovation Program. However, participants who will be interested in this Certificate will not be in a position to

leave their employment and apply for UTM's full-time Master of Management & Innovation. In addition to this, IMI alumni surveys have identified the need for executive programs on strategy and innovation, and discussions with major employers in the Pharmaceutical industry and others relying heavily on innovation show considerable interest. Corporations strive to create cultures that stimulate and foster innovation, and the managers and executives playing leading roles in such cultures will benefit significantly from completing the Certificate in Strategy and Innovation.

## **2. Strategy & Critical Thinking**

The Certificate in Strategy & Critical Thinking will prepare executives and managers who are in functional positions to understand strategic thinking, which coordinates and focuses all functional activities, and to think critically about strategy, strategic thinking, competitive advantage and other business problems. Alumni surveys have identified the need for focused training in these areas as many professionals did not have adequate exposure to this during their undergrad and/ or graduate programs but require this knowledge to move beyond jobs that focus on single functions. Strategy and critical thinking are fundamental to successful organizations, and UTM is well positioned to offer this training as our faculty specialize in these fields.

## **3. Data Analytics**

The amount of data available has exceeded the capacity of most managers and executives to analyse and interpret effectively. The rate at which data is collected continues to accelerate, and the potential uses of this data are becoming even more evident. As a result, management with less familiarity with data analytics will become unable to compete effectively with better informed competitors. The Certificate in Data Analytics Program will fill this need by educating managers and executives with the methods and techniques of data analytics, the problems inherent in big data analysis, and the potential of software that learns or improves its analytical approach with minimal supervision.

## **2 Effective Date**

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Courses are expected to begin in May 2019. Students must complete all courses in the certificate program within a three year period.

## 3 Budget and Resources

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IMlx courses will only proceed if enrolment indicates that the offering, or the set of offerings in a Certificate, will break even or generate more revenue than costs. Costs are detailed in a separate full budget proposal on a full costing basis using costs as known on the date of this request. Teaching resources used will be on a gratis or an overload stipend basis. Room bookings will not impede classes for degree students.

Based on full costs, conservatively assumed attendance, course and program fees, assumed levies from U of T and UTM (although we have asked for UTM not to levy this during our two-year launch window), and all taxes, these certificate programs will break even at a minimum of 7 students (per certificate program). The breakeven estimate includes an estimate of the IMlx service costs for marketing, organization, fees collection and supervision during the event.

### **Impact of Certificates on UTM Resources**

Consultations were made with the UTM Campus Police<sup>1</sup> and Health and Counselling Services<sup>2</sup> to discuss the potential impact these courses might have on the UTM community. Campus Police stated their support of our proposed offerings while noting a few logistical considerations in the event that courses were to run on a Saturday. These have been noted and we will continue to work with Campus Police as we plan our offerings.

IMlx students are not eligible for health and counselling services. Medical crises will be dealt with by the campus police and outside services. We have also reached out to the University's insurance services personnel<sup>3</sup>; who do not foresee problems or additional costs associated with on-campus IMlx plans.

## 4 Admission Protocol

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There will be no formal admission/ application process for any of the proposed certificate programs. Students may declare their intention to complete one of the IMlx certificate programs at any time; however, it is expected that most students will complete all required courses before requesting the certificate. Students will have a three year window (from the commencement of their first certificate course) to complete all program requirements and request the relevant certificate.

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<sup>1</sup> Email received from Robert Massacar on April 1, 2019

<sup>2</sup> Email received from Andrea Carter on March 29, 2019

<sup>3</sup> Email received from John Kerr on April 15, 2019

## 5 Program Requirements

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### **Certificate in Strategy & Innovation**

The Certificate in Strategy & Innovation will consist of five courses, as follows:

- Developing a Winning Strategy – 1 day
- Removing Bias from your Strategy and Decisions – 1 day
- Strategies Amid Uncertainty & Disruptive Technologies – 1 day
- Innovation in the Real World – 1.5 days
- IP Strategy for Technology Management – 1 day

Upon completion of these five courses, students will be able to:

- Identify different approaches to strategic management and their possible outcomes (economic and non-economic);
- Apply strategy frameworks, concepts, and processes from the field of strategic management in a technology and innovation industry context;
- Review organizational frameworks/ processes for managing outcomes; and
- Identify potential errors of bias in decision-making processes.

### **Certificate in Strategy & Critical Thinking**

The Certificate in Strategy & Critical Thinking will consist of the following five courses:

- Developing a Winning Strategy – 1 day
- Finding Problems Customers Will PAY to Solve (Creating Value) – 2 days
- Critical Thinking – 0.5 day
- Removing Bias from your Strategy and Decisions – 1 day
- Strategies Amid Uncertainty & Disruptive Technologies – 1 day

Upon completion of these five courses, students will be able to:

- Identify different approaches to strategic management and their possible outcomes (economic and non-economic), and apply those frameworks;
- Review organizational frameworks/ processes for managing outcomes;
- Identify potential errors of bias in decision-making processes;
- Articulate the leading perspectives on critical thinking perspectives, and their drawbacks; and
- Develop a strategy to enhance their own critical thinking proficiency.

### **Certificate in Data Analytics**

The Certificate in Data Analytics will consist of three courses taken in the order listed:

- Exploratory Data Analysis and Data Visualization – 1 day
- Data Cleaning and Manipulation – 1 day
- Supervised and Unsupervised Machine Learning – 1 day

Upon completion of these three courses, students will be able to:

- Differentiate between and utilize supervised and unsupervised machine learning applications;
- Analyze, summarize, and report on data using the Python programming language;
- Identify and use techniques for recognizing and removal of abnormalities in data sets to minimize the opportunity for erroneous conclusions; and
- Utilize data visualization techniques to improve the ability to communicate data analytics findings.

All courses will conclude with an examination by the instructor. Depending on the nature of the course, this will take the form of either (1) a written examination; (2) a take-home case assignment applying learning elements from the particular course; (3) a personal reflection essay based on the content of the course; or (4) a demonstration of the techniques involved in the course. Each course will be graded as pass/ fail.

Upon completion of all certificate program courses, students will have the opportunity to complete an evaluation/ case study/ assignment to demonstrate their achievement in the subject area and can then request the relevant certificate through the IMIx Academic Director or IMIx Program Officer.

Courses for both the Certificate in Strategy & Innovation and the Certificate in Strategy & Critical Thinking can be completed in any order. Completion of the three strategy courses (Developing a Winning Strategy, Removing Bias from Your Strategy and Decisions, and Strategies Amid Uncertainty & Disruptive Technologies) can be used toward both certificates, provided completion of all certificate courses occurs within three years.

Failed courses must be repeated. Students failing a course may take additional courses without delay, but students cannot fail two courses and receive a certificate.

## 6 Consultation

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Development of all IMIx courses and proposed certificate programs was done in consultation with the IMIx Academic Director, IMI Director, IMI Curriculum Committee (which includes all IMI Program Directors), and the Chair of the Department of Management (UTM).

### **Consultation within U of T for Possible Overlapping Programs**

Consultations have been undertaken with regard to the introduction of IMIx executive programs at UTM. UTSC<sup>4</sup> welcomed the initiative. The University's School of

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<sup>4</sup> Email received from David Zweig, Chair, Management at UTSC, on March 26, 2019

Continuing Studies<sup>5</sup> and the Rotman School’s Executive Programs<sup>6</sup> unit were reassured that IMlx courses and Certificates were sufficiently differentiated from their offerings by their nature, focus, instruction, target audience, scope and location, and stated that they appreciated the consultation and look forward to working with IMlx as part of a co-operative, collaborative approach to executive education by U of T.

## 7 Oversight and Accountability: Review

The proposed certificates will be not-for-credit (category 3) certificates and will be subject to periodic reviews by the IMI Director and the Vice-Principal Academic and Dean, UTM.

To ensure the curriculum and course content of all IMlx offerings maintains the same academic rigour as IMI degree programs, the IMlx Academic Director will have oversight in the administration of all courses. Similar to for-credit offerings, new IMlx courses, certificate programs, and significant changes to existing courses/ programs (i.e. new courses, course deletions, changes to program requirements) will be reviewed by the IMlx Academic Director, IMI Director, and IMI Curriculum Committee before receiving final approval through the appropriate divisional approving body.

## 8 Process Steps and Approvals

The pathway is summarized in the table below.

	<b>Approving Body</b>	<b>Approval Date</b>
<b>Development &amp; Consultation within Unit</b>	Soo Min Toh Director, IMI	April 24, 2019
	IMI Graduate Curriculum Committee	April 24, 2019
<b>Decanal Sign-Off</b>	Andrew Petersen Acting Vice-Dean, Teaching & Learning	April 23, 2019
	Amrita Daniere Vice-Principal Academic & Dean	April 23, 2019

<sup>5</sup> L. Brooks met Maureen MacDonald, Dean, SCS and Kristine Collins, Director, Academic Programs, on April 3, 2019

<sup>6</sup> L. Brooks met Prof. Mihnea Moldoveanu, Vice Dean, and Stephanie Hodnett, Executive Director, on April 3, 2019



<b>Divisional Governance Approval</b>	UTM Academic Affairs Committee	
<b>Submission to Provost's Office</b>	AP&P (report only)	