FOR APPROVAL

TO: Arts & Science Council

SPONSOR: Joshua Barker, Vice-Dean, Graduate Education & Program Reviews

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DATE: October 6, 2016 for October 12, 2016

AGENDA ITEM: 7

ITEM OF BUSINESS:
Major Modification – Approval of New Concentration within the Master of Science in Applied Computing (MScAC)

JURISDICTIONAL INFORMATION:
The Arts & Council has delegated authority to approve modifications to existing degree programs that are defined in the University of Toronto Quality Assurance Process (UTQAP) as major modifications such as new program requirement option within an existing graduate program.

GOVERNANCE PATH:
1. Graduate Curriculum Committee (October 6, 2016) for approval
2. Arts & Science Council (October 12, 2016) for approval
3. Office of the Vice-Provost for information, in turn reported to the Committee on Academic Policy and Programs (May 9, 2017) for information

HIGHLIGHTS:
The Department of Computing Science is proposing a new concentration, Data Science, to be part of the current Master of Science in Applied Computing (MScAC), effective September 1, 2017. The concentration would be offered jointly between Computer Science and the Department of Statistical Sciences.

This proposed concentration would serve both faculty recruitment and growing curricular development between the Departments of Computer Science and Statistical Sciences; the concentration highlights where the research and training in both departments converge, especially in machine learning and data analytics, and align with the University’s goals in Computational and Data Science. There is a critical need for expertise in computer and statistical science; statistical sciences have evolved such that they are impossible to separate from scientific computation. The creation of this concentration will create a program that produces Data Scientists, and the experience and training of its students will be unique in Canada, leveraging the strength of the two Departments.
This concentration ties with plans to create an undergraduate specialist program in Data Science in the Faculty of Arts & Science.

Part of this proposal is not only the creation of this concentration, but the closing of the current ten (10) fields of study within the MScAC. These fields were created according to the requirements of the Ontario Council on Graduate Studies in 2010 when the MScAC was approved. Students, however, have never applied to, been admitted to, or enrolled in any of these fields, and they are not reflected in any student system – they have been dormant. They were not and still are not relevant, and removing them serves to clean up formal records and systems.

The proposal is the result of consultation both between the Departments of Computer Science and Statistical Sciences, but also with the Office of the Vice-President, Research; the Office of the Dean; and the science Chairs within the Faculty of Arts & Science.

Administrative staffing will be handled by the MScAC program, funded through revenues from the concentration; this is intended as a self-sustaining concentration. Space needs are predicted to be minimal in initial years. A growing faculty complement in the Data Science area is predicted.

**MOTIONS:**

a) THAT the proposed new concentration, Data Science, within the Master of Science in Applied Computing, as described in the attached proposal, be approved effective for the academic year 2017–18.

b) THAT the proposed closing of ten fields of study within the Master of Science in Applied Computing, as described in the attached proposal, be approved effective for the academic year 2017–18.