



# University of Toronto Quality Assurance Process (UTQAP) Cyclical Review: Final Assessment Report and Implementation Plan

<b>Programs Reviewed:</b>	Forensic Science, B.Sc. (Hons.): Major, Minor Forensic Science – Anthropology, B.Sc. (Hons.): Specialist Forensic Science – Biology, B.Sc. (Hons.): Specialist Forensic Science – Chemistry, B.Sc. (Hons.): Specialist Forensic Science – Psychology, B.Sc. (Hons.): Specialist
<b>Unit in which programs are housed:</b>	Department of Anthropology, University of Toronto Mississauga (UTM)
<b>Commissioning Officer:</b>	Vice-Principal Academic & Dean, UTM
<b>Reviewers (Name, Affiliation):</b>	1. Professor Shari Forbes, PhD, School of Mathematical and Physical Sciences, University of Technology Sydney 2. Professor Oliver Ribaux, PhD, School of Criminal Sciences, University of Lausanne
<b>Date of review visit:</b>	February 21 – 22, 2018
<b>Date reported to AP&amp;P:</b>	November 1, 2018

Unless otherwise noted, all bulleted comments apply to all programs reviewed.

## 1 Outcome

The Committee on Academic Policy and Programs (AP&P) concluded that there were no issues to be drawn to the attention of the Agenda Committee but requested a follow up report in one year on the medium to long-term development of the program, including the eventual establishment of an EDU and independence from the Department of Anthropology. The follow-up report will be considered by AP&P at the Cycle 2 meeting in 2019-20.

## 2 Significant Program Strengths

- Innovative, experiential-based program delivery
- Complex structure of the programs provides rich options for students
- Program demand is high, ensuring selection of quality students with high GPAs
- Outstanding outreach and communication with youth and high schools in the local community contributes to the programs' popularity
- Faculty and staff are committed, engaged, and focused on the future
- Strong partnerships with external stakeholders and collegial relationships with cognate units

## 3 Opportunities for Program Enhancement

The reviewers recommended that the following be considered:

- Addressing the lack of tenure-stream faculty in the complement
- Addressing issues adding to program complexity: difficulties with class scheduling and lab access; varying levels of student preparation in each class; and overlap in curriculum between programs
- Engaging in a curriculum coordination exercise (involving all faculty and sessional instructors) to identify curricular overlap and the interdisciplinarity of the programs
- Focusing on developing a graduate program in lieu of additional disciplinary specialties
- Enhancing staffing levels to ensure student access to technical and administrative support
- Improving the ratio of students to instruments to allow for sufficient hands-on experience
- addressing challenges created by the current organizational and financial structure of the programs and relationship to the Department of Anthropology
- Developing a strong vision for the program and a strategy for long-term organizational stability that can support this
- Improving and consolidating office and dedicated forensic science lab space
- Adding capacity to the outreach coordinator to meet the demand and interest from the community and local schools

# 4 Administrative Response & Implementation Plan



UNIVERSITY OF  
**TORONTO**  
MISSISSAUGA

OFFICE OF THE DEAN

October 9, 2018

Professor Susan McCahan  
Vice-Provost, Academic Programs  
Simcoe Hall  
University of Toronto

Dear Professor McCahan,

I am writing to provide an administrative response to the External Review of UTM's Forensic Science Program, which was held in February 2018. The Forensic Anthropology, Hons., B.Sc. (Specialist); Forensic Biology, Hons., B.Sc. (Specialist); Forensic Chemistry, Hons., B.Sc. (Specialist); Forensic Psychology, Hons., B.Sc. (Specialist); and Forensic Science, Hons., B.Sc. (Major, Minor) were reviewed. The reviewers were positive about the experiential foundation of the Program but expressed concerns about its "institutional fragility". The Forensic Science Program is valued at UTM, and the Office of the Dean is committed to working with faculty associated with the Program to develop the stability necessary for continued excellence. An implementation plan with timelines can be found at the end of this letter.

## **Faculty**

*The reviewers indicated that it was difficult to assess research activity of faculty given the lack of tenure-stream faculty and that the current complement is "neither appropriate nor effective for conducting nationally or internationally competitive research in forensic science".*

The Program, with the support of the Dean's Office, began addressing the issue of faculty complement in 2016. Two faculty hires have already been made: a teaching-stream Forensic Chemist with a scholarly interest in disciplinary pedagogy hired in 2017 and a research-stream Forensic Geneticist with a research program in Massively Parallel Sequencing hired in 2018. An additional search is currently in progress, for a teaching-stream Forensic Behavioural Toxicologist. This new faculty member will contribute to both content-specific and pedagogical research, to keep pace with the technological, legal, and theoretical advances that characterize Forensic Science.

The Program has identified three priority areas for future faculty hiring: Forensic Psychology; Forensic Microbiology, with a focus on terrorism and/or health to compliment the work of the Forensic Geneticist and Behavioural Toxicologist; and Forensic Epistemology/Ontology, a newly developing specialty that is needed to provide vision, to strengthen methodologies, and to formulate a theoretical framework for the discipline.

The Program will request a research-stream Forensic Psychology position in the next faculty complement planning cycle, aiming to perform a search in 2019-20. The Program will look for

additional opportunities through the normal faculty complement process to add expertise in the other two areas.

## **Curriculum**

*The reviewers identified issues attributed to program complexity: difficulties with class scheduling and lab access; varying levels of student preparation in each class; and overlap in curriculum between programs.*

The Program began a curriculum mapping process in 2017 to address the varying levels of student preparation and overlap in curriculum. In the past year, degree learning expectations and learning outcomes have been reviewed and defined, and some deficiencies and overlap in programming have been identified. As a result, with input from the new faculty in Forensic Chemistry and Forensic Genetics and a CLTA in Forensic Psychology/Philosophy, the Program has undertaken a significant curriculum revision (submitted for the 2019-20 calendar) that reduces overlapping content and enhances complimentary linkages between courses.

The recently submitted program revisions will improve the class scheduling issues because greater flexibility in required courses has been added to make it simpler to fulfill program requirements. Lab access will continue to vary from course to course, as the Program does not yet have dedicated teaching or research labs, but a new Science Building is being envisioned that will provide an opportunity for the Program to request multipurpose teaching and research space.

*The reviewers recommended engaging in a curriculum coordination exercise to identify curricular overlap and the interdisciplinary of the programs. The reviewers encouraged that all faculty and sessional instructors be involved in curriculum renewal and review.*

The curriculum mapping process initiated in 2017 has engaged all members of the Program, including faculty and sessional instructors, and the Program is committed to continuing to involve teaching staff in curriculum review and renewal.

*Given the existing complexities within the undergraduate programs, the reviewers did not support introducing additional disciplinary specialties and instead suggested focusing on developing a graduate program.*

The Program will not develop additional undergraduate programs at this time, focusing instead on streamlining the existing undergraduate programs and investigating and drafting a professional graduate program.

## **Students**

*The reviewers were concerned that staffing levels were affecting support for learning outcomes and student access to technical and administrative support.*

The Office of the Dean has recently approved increasing the existing 50% Lab Technician position to 100%, which will allow the program to develop more program-specific courses and

provide students with additional hands-on experience in the lab. The Office of the Dean has also approved a Department Manager position, joint with the Department of Anthropology, and a Program Outreach Officer position. These new positions should decrease the administrative burden on the Undergraduate Program Advisor, allowing more access to advising support for students.

*The reviewers commented that the ratio of students to instruments does not allow sufficient hands on experience.*

With the additional support provided by a 100% Lab Technician position, labs can be designed to rotate smaller groups of students through various instruments and lab exercises, providing more hands-on experience.

### **Administration**

*While the reviewers were complimentary, they commented that overall the program is “institutionally fragile,” and faces challenges with the current organizational and financial structure of the programs and relationship to the Department of Anthropology. The reviewers recommended developing a strong vision for the program and a strategy for long-term organization stability that can support this.*

The Program was created 22 years ago, before the existence of Extra-Departmental Units (EDUs). As the Program grew and evolved, it began to operate in a manner similar to an EDU-B, but its status was not formalized. As an immediate step, the Program intends to establish itself as an EDU-B in order to formally administer the existing Forensic Science degree programs and to separate financial and planning responsibilities from the Department of Anthropology. The Program’s long-term goal, once a sufficient faculty complement is established, is to organize itself as an EDU-A in order to hold primary faculty appointments.

The Department of Anthropology has expressed full support for the Program’s plan to apply for EDU-B status in the near term and for EDU-A status once the Program is fully capable of supporting itself. The Department also supports the relevant changes in the appointment status of faculty hired for the Forensic Science Program that will be required to create the proposed EDU.

*The reviewers commented on the lack of office and dedicated forensic science lab space, and that faculty and staff reside in different buildings.*

A new Science Building is being envisioned at UTM that will provide the Program with an opportunity to request multipurpose teaching and research lab space and a cluster of offices for faculty and an office to support to Forensic Program.

*The reviewers noted that the outreach coordinator has limited hours and is not able to meet the demand and interest from the community and local schools.*

The Office of the Dean has approved a Program Outreach Officer position to support recruitment, public education and other outreach initiatives.

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## **Implementation Plan – Forensic Science Program, UTM**

The Program and the Office of the Dean, in consultation, will undertake the following approaches to enact positive changes:

### Immediate Term (6 months)

#### Faculty

- Complete search for a new teaching-stream Forensic Behavioural Toxicologist. *[Program with funding from the Dean's Office]*

#### Curriculum

- Finalize the minor program revisions identified by the initial curriculum mapping work for the 2019-20 Calendar. *[Program]*

#### Students

- Increase the current 50% Lab Technician position to 100%. *[Program with funding from the Dean's Office]*

#### Administration

- Hire a Program Outreach Officer and, with the Department of Anthropology, a shared Department Manager. *[Program with funding from the Dean's Office]*

### Medium Term (1-2 years)

#### Faculty

- Hire a new research-stream Forensic Psychologist. *[Program with funding from the Dean's Office]*

#### Curriculum

- Continue the curriculum mapping process by mapping course expectations and outcomes. *[Program]*

#### Administration

- Organize as an EDU-B to formally administer existing programs. *[Program with support from the Dean's Office]*

### Long Term (3-5 years)

#### Faculty

- Assess faculty complement needs annually, including an emphasis on Forensic Microbiology and Forensic Epistemology/Ontology. *[Program with funding from the Dean's Office]*

### Curriculum

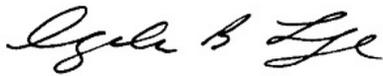
- Continue to monitor and revise the curriculum map. *[Program]*
- Develop and propose a Professional Masters Program in Forensic Science. *[Program]*

### Administration

- In conjunction with planning for a Science Building, identify appropriate teaching and research laboratory space and office space. *[Program with support from the Dean's Office]*
- With the Department of Anthropology, explore the feasibility of creating EDU-A in order to increase organizational stability for the program. *[Program with support from the Dean's Office]*

Please let me know if you have any questions about this response.

Sincerely,

A handwritten signature in cursive script, appearing to read "Angela B. Lange".

Angela Lange  
Acting Vice-Principal, Academic & Dean

## 5 Executive Summary

The reviewers identified the programs' strengths as innovative, experiential-based program delivery; complex structure providing rich options for students; high program demand, ensuring selection of quality students with high GPAs; outstanding outreach and communication with youth and high schools in the local community that contributes to the programs' popularity; faculty and staff are committed, engaged, and focused on the future; and strong partnerships with external stakeholders and collegial relationships with cognate units. The reviewers recommended that the following issues be addressed: addressing the lack of tenure-stream faculty in the complement; addressing issues adding to program complexity; engaging in a curriculum coordination exercise (involving all faculty and sessional instructors) to identify curricular overlap and the interdisciplinarity of the programs; focusing on developing a graduate program in lieu of additional disciplinary specialties; enhancing staffing levels to ensure student access to technical and administrative support; improving the ratio of students to instruments to allow for sufficient hands-on experience; addressing challenges created by the current organizational and financial structure of the programs and relationship to the Department of Anthropology; developing a strong vision for the program and a strategy for long-term organizational stability that can support this; improving and consolidating office and dedicated forensic science lab space; and adding capacity to the outreach coordinator to meet the demand and interest from the community and local schools. The Dean's Administrative Response describes the Campus and programs' responses to the reviewers' recommendations, including an implementation plan for any changes necessary as a result. The Committee on Academic Policy and Programs (AP&P) concluded that there were no issues to be drawn to the attention of the Agenda Committee but requested a follow up report in one year on the medium to long-term development of the program, including the eventual establishment of an EDU and independence from the Department of Anthropology. The follow-up report will be considered by AP&P at the Cycle 2 meeting in 2019-20.