



University of Toronto Mississauga

Proposal to Modify an Academic Offering

SECTION 1 – Summary Information

Type of Proposal: <i>(i.e. Modification to existing Academic Regulations, Transcript Notation, Pilot Program, etc.)</i>	Modification to Entry Requirements of the existing First-Year FSC Admit Post (TMK) and the Program Enrolment Requirements of the Forensic Anthropology Specialist program (ERSPE1338)
Department/Unit Proposing:	Forensic Science Program Department of Anthropology University of Toronto Mississauga
Department/Unit Contact:	Tracy Rogers FSC Program Director Tracy.rogers@utoronto.ca
Date of Proposal:	October 26, 2021
Faculty/Academic Division:	University of Toronto Mississauga
Effective Date:	September 1, 2022 for students applying for 2024-2025 first year entry to UTM.
For Transcript Notations:	
Wording for the notation:	N/A
List of programs that will be able to take advantage of the notation:	N/A

SECTION 2 - Proposal

1. DESCRIPTION

The Forensic Science (FSC) Program is proposing the re-instatement of Grade 12U Math (MHF4U) as a prerequisite for entry into the first-year FSC admit post (Anthropology “stream”). At the same time, Grade 12U Math will be added to the program enrolment requirements of the Specialist Program in Forensic Anthropology (ERSPE1338).

As the only “stream” within the FSC admit post without a math requirement, students that go on to pursue the Forensic Anthropology (FSC ANT) Specialist program are struggling to perform upper year functions and statistical analyses in comparison to their peers in the other forensic science specialist programs (in Biology, Chemistry, and Psychology). The content of 12U Math provides the pre-familiarity necessary for success in the required statistics courses (STA215H5 or ANT407H5) for the FSC ANT Specialist, and the rudimentary experience with trigonometry will allow students to focus more on their advanced forensic education (bullet trajectory, blood patten analysis, etc.). Carrying this admission requirement through to the program enrolment requirements for the FSC ANT Specialist program will further reinforce the importance of this training and its role in fulfilling program learning outcomes, similar to the current enrolment requirements for the FSC Psychology (FSC PSY) Specialist program.

The positive impact of this change will be a better learning experience for FSC ANT students, gained by the improved understanding, integration, and application of the program curriculum. One clear example of this is expected to be in the increased quality of the final year internship project, which all require independent statistical analyses and data interpretation. A potential negative impact may be a temporary drop in enrolment in the FSC ANT Specialist as high school students familiarize themselves with the new admission requirements, but the below outlined implementation plan for this proposed change will address this concern.

2. BACKGROUND

Previously, all “streams” of the first-year FSC admit post required Grade 12U Math, English, and Biology (or equivalent). At some point, the Grade 12U Math requirement for the ANT “stream” was dropped. While it is not clear why this change occurred, it is believed it was to better align with the Anthropology programs at UTM, which do not require Grade 12U Math. However, though FSC ANT and ANT do have significant overlap, they are not the same fields or programs of study. To achieve a number of program learning outcomes within the FSC ANT Specialist program, which are core tenants of forensic science investigation, an understanding of advanced mathematical and scientific concepts is required. This understanding, which is not necessarily required for successful ANT study, begins with a solid foundation from Grade 12U Math.

The need for this data and statistical skillset is recognized in all other “streams” of the first-year FSC admit post. It is further acknowledged in the FSC PSY Specialist program (ERSPE1505), which includes Grade 12U Math as a program enrolment requirement.

When Grade 12U Math was originally dropped from the admission requirements, the FSC specialist cohort was significantly smaller and the impact was not felt quite so strongly. In recent years, however, enrolments have increased and the discrepancy between FSC ANT and other FSC specialist students, in

terms of statistical knowledge and skill, is more acute. Therefore, it is believed that the addition of Grade 12U Math will benefit FSC ANT Specialist students.

3. RATIONALE

The proposed modification to both the first-year FSC admit post (ANT “stream”) and the program enrolment requirements for the FSC ANT Specialist (ERSPE1338) will be beneficial for a number of reasons. Most appealingly, this proposed change will contribute to greater student success in achieving program learning outcomes (and by extension, degree level expectations). Students with the foundational Grade 12U Math knowledge will be able to apply statistical analysis and data interpretation techniques (albeit at a rudimentary level) much earlier in their program and courses (statistical and methods courses are required in all four FSC specialist programs (Anthropology, Biology, Chemistry, and Psychology)). This allows for understanding of curricular content in a much different way, encouraging integration of knowledge across their courses earlier in their program and ultimately leading to a stronger mastery of the discipline.

At the admission and prospective student level, this change streamlines the admission requirements across all four “streams” of the first-year FSC admit post, signaling that foundational math understanding is *required* for success in the program. This provides clear messaging to prospective students about the expectations and demands of the FSC specialist programs and builds in flexibility for students to transition to another FSC “stream” should their interests change.

Amending the enrolment requirements for the FSC ANT Specialist program to include Grade 12U Math further emphasizes the importance of mathematical/ numeracy skills in the discipline. This update will ensure all students entering the FSC ANT Specialist outside of the first-year FSC admit post will also have the foundational knowledge Grade 12U Math provides. This proposed change follows the model set by the Forensic Psychology Specialist (ERSPE1505), which introduced Grade 12U Math as a program enrolment requirement in 2011-2012.

4. CONSULTATION

Consultation with academic administrators and student support staff occurred with the Anthropology Department (Professor Esteban Parra, Department Chair; Carolyn Loos, Department Manager; and Angela Sidoriak, Undergraduate Advisor). All were in support of the proposed change and there is an agreement of benefit to both programs as prospective and current students who do not qualify for Forensic Anthropology will likely look to an Anthropology (SCI) program instead (as has been the trend). In addition, Grade 12U Math/ MHF4U will benefit any student taking ANT407H5 (Quantitative Methods in Archaeology and Biological Anthropology), no matter their program of study. There are no other concerns from the perspective of the Anthropology Department.

Additional consultation occurred with the Office of the Registrar, who conveyed concern over the potential negative impact to application numbers. The opportunity for students to obtain an equivalent prerequisite in their first year at UTM was explored; however, the addition of a “catch up” course once students were at UTM would severely impact the first year experience by taking the space of an elective or distribution course. Giving students the awareness and opportunity to complete the course in high school, as is done with the other “streams” of the first-year FSC admit post seems the best option currently.

And finally, student consultation and feedback acknowledged the benefit of Grade 12U Math in successfully completing STA215H5 (or alternative statistics courses) and a strong performance across their forensic science program more generally. The early introduction to mathematical thinking and problem solving provided a strong base to further refine their skills in STA215H5 and apply this to quantitative crime scene techniques in FSC courses.

5. FINANCIAL AND RESOURCE IMPLICATIONS

There is no net change to the overall financial operation of the FSC Programs as a result of this proposed change. Admission and recruitment and other promotional materials may require updating, but these updates will be folded into the annual production cycle and should not incur any additional costs.

Admission and recruitment staff and academic advising staff, both in the Office of the Registrar, as well as academic advisors in FSC and ANT will need to familiarize themselves on the new admission and program enrolment criteria so that potential and current UTM students are advised and supported appropriately. While it is acknowledged that the first 2-3 years of the implementation to this change will require the greatest amount of staff time (mostly in informing and advising students), this will still fall within the scope of regular duties for these roles and should be able to be managed as part of the normal workload.

6. IMPLEMENTATION

If approved, the implementation of this change will require a four-year approach to ensure potential students in high school have enough time to complete the admission requirements in a timely manner.

Implementation Plan:

- **2021-2022 (Approval):** Proposal is presented at the Fall 2021 Sciences Undergraduate Curriculum Committee meeting for feedback and comments. With the support of the Sciences Curriculum Committee, the Vice-Dean, Teaching & Learning (within the Office of the Dean), will bring the proposal forward to the UTM Academic Affairs Committee (AAC) in January 2022. Upon AAC approval, the UTM Academic Calendar will be updated for the 2022-2023 Academic Year, signaling the change.
- **2022-2023 (Year 1):** Grade 11 high school students (primary cohort) interested in Forensic Anthropology and their school counsellors will be made aware of the change, and students are advised to take Grade 11 MCR3U (Functions) to unlock Grade 12 MF4U. This is the final cohort of Grade 12 students (secondary cohort) who can apply with previous requirements of Grade 12 English and Grade 12 Biology only.
 - ➔ AT the Ontario University Fair (OUF) & Fall Campus Day, guests are made aware that this is the last year to apply without MHF4U, but it is highly encouraged for success.
 - ➔ Program plans, viewbooks and marketing brochures are changed in January *after* the OUAC deadline to avoid confusion with the current requirements, and made available to Grade 11 students looking ahead.
- **2023-2024 (Year 2):** The primary cohort, now in Grade 12, complete MHF4U and apply to the first-year Forensic Science admit post for Fall 2024 admission. All marketing materials reflect the new addition of MHF4U.

- **2024-2025 (Year 3):** UTM entry year for the primary cohort, with MHF4U, to the first-year FSC admit post.
- **2025-2026 (Year 4):** Primary cohort enrolls in the FSC ANT Specialist subject post (second year of study at UTM).

See Appendix A for a calendar copy of the FSC ANT Specialist program entry, to appear beginning 2022-2023.

7. APPROVAL PATHWAY

Approving Body	Sign-Off/ Approval Date
Unit Sign-Off Tracy Rogers, FSC Program Director	October 26, 2021
Decanal Sign-Off Heather Miller, Vice-Dean, Teaching & Learning	
Divisional Sign-Off Sciences Divisional Undergraduate Curriculum Committee	
Divisional Approval UTM Academic Affairs Committee	

APPENDIX A: Proposed 2022-2023 Calendar Copy (with track changes)

Forensic Anthropology - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Admission into the Forensic Anthropology program is by special application ONLY. To be considered for admission into the program, ALL students, including students admitted into the 1st year Forensic Science category, **MUST** submit a direct online FSC Application, upon completing the minimum program entry requirements. **Meeting the minimum requirements does not guarantee admission into the program.**

Minimum Requirements:

1. Completion of 4.0 credits; including 3.0 science credits.
2. Completion of [ANT101H5](#) with **75% or better** and [ANT102H5](#) with **75% or better** and [FSC239Y5](#) with a **70% or better**. (Students applying to enroll after second year must have completed **8.0 credits** and achieved at least **75% in each of** [ANT200H5](#), [ANT202H5](#), [ANT203H5](#) and [ANT205H5](#)) and [FSC239Y5](#) with a **70% or better**.
3. A minimum Cumulative Grade Point Average of at least **3.0** *The actual minimum CGPA varies from year to year but is never lower than 3.0*

*** Students applying to this program in the 2024-2025 Academic Year (for program entry in the 2025-2026 Academic Year) will be required to have Grade 12(4U) Advanced Functions or equivalent.**

Application for admission into the program for ALL students can be found at:
www.utm.utoronto.ca/forensic

Forensic Science Applications Open: **March 1 of each year**
Forensic Science Application Deadline: **May 1 of each year**

Completion Requirements:

A minimum of 15.5 credits are required.

First Year: [ANT101H5](#), [ANT102H5](#); [BIO152H5](#), [BIO153H5](#); [FSC239Y5](#)

Second Year: [ANT200H5](#), [ANT202H5](#), [ANT203H5](#), [ANT205H5](#); [FSC271H5](#); [STA215H5](#)/[ANT407H5](#)

Third Year: [ANT306H5](#), [ANT312H5](#)/[ANT317H5](#), [ANT334H5](#), [ANT340H5](#); ([FSC300H5](#),[FSC302H5](#))/([FSC210H5](#),[FSC303H5](#)), [FSC316H5](#), [FSC330H5](#), [FSC335H5](#), [FSC340H5](#), [FSC360H5](#)

Fourth Year: [ANT415H5](#), [ANT436H5](#)/[FSC307H5](#); [ANT439H5](#), [ANT441H5](#); [FSC401H5](#), [FSC439H5](#), [FSC481Y5](#)/[FSC482H5](#), [FSC483H5](#))

NOTES:

1. The program requirements in effect at the time the student is admitted to the program must be met in order to fulfill the degree requirements.
2. Prospective students already holding a degree in Anthropology may not complete the Forensic Anthropology Specialist Program due to the overlap of course content for courses already completed in their first specialty.
3. **Students without pre- and co-requisites or written permission of the instructor can be de-registered from courses at any time.** Once a student has been admitted into a FSC program stream, written authorization from the Forensic Science program advisor **MUST** be obtained for any request of change in a student's area of study within the Forensic Science program.

[ERSPE1338](#)