UTM
SUMMARY OF CHANGES FOR 2003-2004 CALENDAR

Provide a SUMMARY of CHANGES for the 2003-2004 Calendar using the format below. If not using the form supplied, please follow the format indicated. This information will be used for the Curriculum Committee Meetings.

DEPARTMENT: Forensic Science Program

PROGRAM CHANGES:

Deleted Programs: (list)

New Programs: (list & include outline)
Forensic Science-Anthropology Specialist; Forensic Science-Biology Specialist; Forensic Science-Psychology

Other Changes: (e.g. extensive, minor revisions)
Forensic Science-Chemistry Specialist (Minor revision – min. CGPA now 3.0)
Forensic Science Double Major (Minor revisions)

COURSE CHANGES:

New Courses: (list)
FSC310H – DNA Evidence in Forensic Science
FSC250H – Intro to Forensic Investigation
FSC260H – Forensic Investigation and the Courts

Deleted Courses: (list)

Courses Renumbered:
From_to From_to

Courses Reweighted:
From_to From_to

Courses with Description Changes: (attached revised description)
FSC301H-Forensic Identification
FSC401H-Forensic Pathology
FSC402H-Forensic Toxicology

Note: a New Course Form must be completed For each new course.

Signature (UTM): ___________________________ Date: ___________________________

Signature (Dept. Chair): _______________________ Date: ___________________________
Note: Entry into all Forensic Science Specialist Programs is by Special Application Only.

Application Deadline is April 1st of each year.

Application to these Specialist Programs can be submitted by:
1. Direct on-line application at: www.utm.utoronto.ca/~w3fsc
2. Required accompanying documentation can be submitted directly to:
   The Forensic Science Program Office
   The University of Toronto at Mississauga
   3359 Mississauga Road, Rm. 227 N.B.
   Mississauga, ON L5L 1C6

Forensic Science - Anthropology Specialist (Science)
Specialist Program ERSPE????
Within an Honours degree, at least 16.0 credits are required.

Limited Enrolment
Enrolment in this program is limited and by application only. To qualify, students must meet the following minimum requirements (Meeting the following minimum requirements does not guarantee admission):

a) Completion of 4.0 courses; including 3.0 science credits
   b) Completion of ANT101H and ANT102H with a grade of at least 65% in both (Students applying to enrol after second year must have completed 8.0 courses, achieved at least 65% in each of ANT200Y, 203Y and 204Y);
   c) A minimum Cumulative Grade Point Average of at least 3.00.

First Year:
1. ANT101H, 102H; CHM140Y; BIO152H,153H ; FSC239Y;

Second Year:
2. ANT200Y, 203Y, 204Y, 205H, PHIL271H;
3. at least 0.5 in any PHY;

Third Year:

Fourth Year:
5. ANT415Y, 439Y, FSC401H, 481Y

Recommended:
Forensic Science - Biology Specialist (Science)
Specialist Program ERSPEYYYY

Within an Honours degree, 16.0 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 must be at the 400 level.

Limited Enrolment
Enrolment in this program is limited and by application only. To qualify, students must meet the following minimum requirements (Meeting the following minimum requirements does not guarantee admission):

a) Completion of 4.0 courses; including 3.0 science credits
b) Completion of 1.0 full credit in Biology with 65% or better;
c) Completion of 1.0 full credit in Chemistry with 65% or better,
d) A minimum Cumulative Grade Point Average of at least 3.00. The actual GPA requirement in any particular year may exceed this value, in order to achieve a proper balance between enrolments and teaching resources.

First Year:
1. BIO151Y/(152H, 153H); CHM140Y; MAT132Y/138Y/(CSC108H,148H); FSC239Y;
2. 1.0 from the following: PSY100Y; ANT 100Y;

Second Year:
3. BIO204H, 205H, 206H, 207H, 210H/215H; PHY135Y; PHL271H;

Third and Fourth Years:
4. BIO338H, 360H, 361H; FSC301H, 310H, 401H, 402H, 481Y;
   *No substitute statistics course will be allowed for BIO360H/361H except under exceptional circumstances
5. 2.5 additional BIO Credits at the 300 level or above
Forensic Science - Psychology Specialist (Science)
Specialist Program ERSPE????

Within an Honours degree, at least 15 credits are required.

**Limited Enrolment**
Enrolment in this program is limited to relatively small number of students a year and is by application only. Meeting the following minimum requirements does not guarantee admission.

a) 4.0 completed credits, including 3.0 science credits
b) Completion of CHM140Y, MAT132Y/138Y/(CSC108H,148H);
c) Completion of PSY100Y with a grade of at least B+; and
d) A minimum Cumulative Grade Point Average of at least 3.00.

**First Year:**
1. PSY100Y, MAT132Y/138Y, FSC239Y, CHM140Y

**Second and higher Years:**
2. (PSY201H*, 202H)/ (BIO360H*, 361H)
   *No substitute statistics course will be allowed for PSY201H or BIO360H except under exceptional circumstances
3. at least 0.5 in any PHY
4. PHL271H and 1.0 credits FSC 301H, 310H, 401H, 402H
5. 2.5 credits from the following courses: 0.5 credit must be taken from each of the following groups (bold courses are recommended choices)
   a) Biological Bases of Behaviour: PSY252H, 290H, 295H
   b) Cognitive/Perception: PSY270H, 280H
   c) Social/Personality/Abnormal: PSY220H, 230H, 240H
   d) Developmental: PSY210H, 213H

**Third Year:**
6. PSY309H
7. One laboratory course from: PSY329H, 379H, 399H

**Third and Fourth Year:**

**Fourth Year:**
9. PSY400Y/442Y
10. FSC481Y
DNA Evidence in Forensic Science

FSC 310

Full/Half: H

L S P T

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Genetic markers including Short Tandem Repeats (STRs) and Single Nucleotide Polymorphisms (SNPs) and the technologies employed for characterizing them will be described in detail. Problems encountered in forensic casework will be discussed, such as DNA degradation, PCR-contamination, mixed samples, limitations of genotyping technologies, etc. Other topics include DNA databases, quality control and laboratory validation issues, and admissibility in the courtroom. Several case studies will be employed.

Exclusion: 

Prerequisite: FSC239Y, BIO206H (First choice given to FSC Majors and Specialists)

Corequisite: 

Recommended Preparation: 

Abbreviated Course Title (no more than 20 characters including spaces)

ADDITIONAL INFORMATION: (required for Curriculum Committee meeting)

For the purposes of the Distribution Requirement (refer to Calendar, pg.39) this course belongs in:

Science: ✓ Social Science: Other: 

If other, please explain: 

Academic Relevance: State reason for creating the course: Forensic Science students must understand the analytical and statistical relevance of DNA evidence.

Is the same course offered on the St. George Campus? No

“Revived” Courses: If listed previously, state last session it appeared in the Calendar 

DATE: November 20, 2002 SUBMITTED BY: W. Raymond Cummins

Virginia Boon/Sept. 2002
Course Title and Description - Provide an exact course description as it is to appear in the Calendar. Course descriptions should be typed and may NOT exceed the space provided below (5 lines or 50 words)

Course Title: **Introduction to Forensic Investigation**

FSC 250

This course offers a broad perspective on forensic investigation as a profession in a changing legal and technological environment in contrast to popular misconceptions about the profession. Topics include: limitations of knowledge and practice; knowledge and how know; the dangers of deference to authority; evidence vs. truth. Students will learn to think critically about science and the nature of evidence, the laws of evidence, and professional ethics. They will also examine the historical and philosophical contexts in which the profession is evolving within the principles of major case management.

Exclusion:

Prerequisite: FSC239Y/P.I.

(First choice given to FSC Majors and Specialists)

Corequisite:

Recommended Preparation:

Abbreviated Course Title (no more than 20 characters including spaces)

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ADDITIONAL INFORMATION: (required for Curriculum Committee meeting)

For the purposes of the Distribution Requirement (refer to Calendar, pg.39) this course belongs in:

- Science: _________ Social Science: _____✓_____ Humanities: _________ Other: __________

If other, please explain

Academic Relevance: State reason for creating the course:

Is the same course offered on the St. George Campus? _____No

“Revived” Courses: If listed previously, state last session it appeared in the Calendar

DATE: November 20, 2002 SUBMITTED BY: W. Raymond Cummins
Course Title and Description - Provide an exact course description as it is to appear in the Calendar. Course descriptions should be typed and may NOT exceed the space provided below (5 lines or 50 words)

Course Title **Forensic Investigation and the Courts**

Course Number \( FSC \ 260 \quad H \) 26
Course Number Full/Half L S P T

The structure of argument and argumentation across disciplines will be examined. The process of adapting scientific argument to legal argument will be explored as will the techniques of presentation to self and dealing with media. Against a backdrop of Supreme Court decisions and regarding evidence and expert witness testimony, students will apply knowledge, skills, and values in structured legal environments. They will develop ability to communicate in adversarial legal setting, respond to legal questions, and express with precision the scope and limits of their expertise.

Exclusion: ____________________________________________

Prerequisite FSC239Y/P.I. (First choice given to FSC Majors and Specialists)

Corequisite: ____________________________________________

Recommended Preparation: ____________________________________________

Abbreviated Course Title (no more than 20 characters including spaces)

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ADDITIONAL INFORMATION: (required for Curriculum Committee meeting)

For the purposes of the Distribution Requirement (refer to Calendar, pg.39) this course belongs in:

- Science: __________ Social Science: ______✓_______ Humanities: ______ Other: __________

If other, please explain ____________________________________________

Academic Relevance: State reason for creating the course: ____________________________________________

Is the same course offered on the St. George Campus? ______ NO

“Revived” Courses: If listed previously, state last session it appeared in the Calendar________________

DATE: __November 20, 2002__________               SUBMITTED BY: ________________________________

W. Raymond Cummins
FSC301H Forensic Identification

This course offers education and training in the practice of forensic identification. Content focuses mainly on the crime scene and those types of evidence commonly dealt with in an identification facility. Topics include: crime scene protocols, management and reconstruction; identification compared and contrasted to systematics; impression evidence (i.e. fingerprints, footwear, tire and tool marks) theory and practice; firearms-related evidence; requirements of society and the court. Activities will include a field trip to an identification bureau and participation in a practical crime scene exercise.

[26L, 13T]
Prerequisite: FSC239Y; CHM140Y
(First choice given to FSC Majors and Specialists)

FSC401H Forensic Pathology

This is a general introduction of the scientific and medical basis of forensic pathology. The scientific aspects of death investigation will be emphasized including cause, manner, and time of death. Emphasis will be placed in developing skills to critically examine the published forensic scientific and medical literature. Also included are Human Right’s death investigation, and custodial death.

[26L, 13T]
Prerequisite: FSC239Y; BIO204H/ 210H/380H
Recommended Preparation: PHL271H (First choice given to FSC Majors and Specialists)

FSC402H Forensic Toxicology

This course will focus on topics in forensic toxicology. Lectures will include a review of pharmacokinetics, analytical techniques and quality assurance measures used in forensic toxicology, the effects of drugs on human performance and post-mortem toxicology and an overview of the toxicology of illicit drugs, pharmaceutical drugs and other poisons. The major focus of this course will be the role that a forensic toxicologist plays in criminal and death investigation. Tutorials will include case study exercises and mock court demonstrations with the possibility for field trips to court and forensic agencies in Ontario.

[26L, 13T]
Prerequisite: FSC239Y; CHM140Y
Recommended Preparation: PHL271H (First choice given to FSC Majors and Specialists)
The following two courses are taken from a suite of courses under development as a program for advanced qualification of professional investigators. This comes from a recent report of joint task force formed by the Principal of UTM and the Commissioner of the OPP and aimed at professionalization of the practice for forensic identification and its practitioners.

Some of these courses such as those presented here are more like social sciences courses than science courses. These are also the types of courses that interest the potential employers of the graduate of our forensic science program. Therefore these courses are proposed as credit courses and as electives to be taken by students in the forensic science program. They should also be open to students in the crime and deviance program and by non-degree students admitted based upon their professional experience.

It is possible that this suite of courses may grow into a program very similar to the Diploma in Investigation and Forensic Accounting (DIFA) program offered at UTM through the Rotman School and headed by Professor Len Brooks.

These courses will be offered for final approval through the Social Sciences Curriculum Committee. The present form arises from consultations with:

- Isabel Murray, from the Office of the Registrar at UTM
- Professor Len Brooks, from the DIFA Program
- Professor Kelly Hannah-Moffat, from the Crime and Deviance Program
- Professor Barry Green, Associate Chair of Sociology

They are now proposed as FSC courses. They had originally been submitted as PFI (Professional Forensic Investigation) courses.

**FSC250H Introduction to Forensic Investigation**

This course offers a broad perspective on forensic investigation as a profession in a changing legal and technological environment in contrast to popular misconceptions about the profession. Topics include: limitations of knowledge and practice; knowledge and how know; the dangers of deference to authority; evidence vs. truth. Students will learn to think critically about science and the nature of evidence, the laws of evidence, and professional ethics. They will also examine the historical and philosophical contexts in which the profession is evolving within the principles of major case management.

**FSC260H Forensic Investigation and the Courts**

The structure of argument and argumentation across disciplines will be examined. The process of adapting scientific argument to legal argument will be explored as will the techniques of presentation to self and dealing with media. Against a backdrop of Supreme Court decisions and regarding evidence and expert witness testimony, students will apply knowledge, skills, and values in structured legal environments. They will develop ability to communicate in adversarial legal setting, respond to legal questions, and express with precision the scope and limits of their expertise.