

**CURRICULUM SUBMISSION
to Erindale College Council
University of Toronto at Mississauga**

DIVISION:  Sciences

SUMMARY OF COURSE CHANGES:

| Department Name List in alphabetical order | No. of Full Courses Deleted | No. of Full Courses Added | No. of Half Courses Deleted | No. of Half Courses Added | Net FCEs |
|---|-----------------------------|---------------------------|-----------------------------|---------------------------|----------|
| Biology | | 1.0 | 2.0 | 5.0 | 2.5 |
| Chemical and Physical Sciences | | | 1.0 | 3.0 | 1.0 |
| CCIT | | | | 4.0 | 2.0 |
| Forensic Science | | | 1.0 | 4.0 | 1.5 |
| Mathematical and Computational Sciences | 1.0 | 3.0 | 2.0 | 7.0 | 4.5 |
| Psychology | | | | 6.0 | 3.0 |

SUMMARY OF PROGRAM CHANGES:

| Bioinformatics Specialist Program | |
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| New Program | <p>Bioinformatics involves the computational analysis of gene and genome sequences as well as functional genomic data. It is an interdisciplinary science that requires strong backgrounds in computer science and molecular biology and good knowledge of mathematics, chemistry, genetics and evolutionary biology.</p> <p>The Specialist Program reflects the interdisciplinary nature of the field, and the courses draw from the offerings of the Computer Science, Math, Stats, Biology and Chemistry disciplines.</p> <p>A total of 14.5 credits is required within the Specialist Program.</p> <p>Enrolment in this program is limited. Students who wish to enroll at the end of the first year (4.0 credits) must have passed all the courses listed for the first year, attained at least 60% in all the first year computer science and mathematics courses, and have a minimum cumulative grade point average (CPGA) of 2.0.</p> <p>The proposed Bioinformatics program at UTM was conceived in 2002 and was the first such program to be proposed at the University of Toronto. It met with general approval during the Curriculum review process in 2003 but could not get mounted in 2004 as administrative changes at UTM prevented the introduction of new programs.</p> <p>The UTM Bioinformatics program can be mounted with minimal resource implications because of existing expertise in Bioinformatics-related areas. UTM has been traditionally strong in the Life Sciences. Moreover, faculty in Mathematics and Computer Science also have the necessary background to teach courses in the relevant aspects of the program. The only new hire required is at the level of a Research Associate/Research Assistant who will coordinate the projects of students in the final year of the program. Funding for this position has been discussed with the Dean. If necessary, it will be funded from enrolment growth positions. However, other funding options are being pursued.</p> |

This RA will also be suitable for the proposed Synthetic Biology Lab at UTM. A group involving Biology, Chemistry, Computer Science, Mathematics, Medicine and Statistics is evolving to study the newly emerging area of Synthetic Biology. The Bioinformatics program will be contiguous with the activities of the Synthetic Biology Lab at an undergraduate level.

1st Year (4.0 credits)

BIO152H5 Introduction to evolution and evolutionary genetics
CHM140Y5 The study of matter and its transformations
MAT102H5 Mathematical proofs
MAT138Y5 Calculus (may be substituted with MAT132Y and MAT232H)
CSC108H5 Introduction to computer programming
CSC148H5 Introduction to computer science

2nd Year (4.5 credits)

BIO206H5 Introductory cell and molecular biology
BIO207H5 Introductory genetics
BIO215H5 Lab in molecular biology and genetics
CHM242H5 Introductory organic chemistry I
CSC207H5 Software design
CSC236H5 Introduction to the theory of computation
CSC263H5 Data structures and analysis
MAT223H5 Linear algebra I
MAT224H5 Linear algebra II

3rd and 4th Years (6.0 credits)

BIO341H5 Advanced genetics
BIO478H5 Functional genomics and bioinformatics
CSC321H5 Introduction to neural networks and machine learning) OR
CSC411H5 Data mining and machine learning
CSC343H5 Introduction to databases
CSC373H5 Algorithm design and analysis
JBC372H5 Molecular biology
MAT242H5 Differential equations – should be taken in 3rd year
MAT332H5 Nonlinear dynamics and chaos
STA257H5 Probability and statistics I – must be taken in 3rd year
STA248H5 Statistics with applied probability – must be taken in 3rd year

Plus at least 1.0 credit from the following list of recommended courses, of which at least 0.5 at 400-level:

BIO314H5 Laboratory in Cell Molecular Biology
BIO315H5 Advanced Cell Biology
BIO370Y5 Microbiology
BIO371H5 Lectures in microbiology
BIO380H5 Human Development
BIO442H5 Mechanisms of evolution
BIO475H5 Modern approaches to biotechnology
BIO481Y5 Biology research project
CHM361H5 Structural biochemistry
CHM362H5 Metabolism and bioenergetics
CSC310H5 Information theory
CSC338H5 Computational Methods
CSC363H5 Computational complexity and computability
CBJ481Y5 Independent Project in Bioinformatics
JCP410H Modeling of biochemical systems
STA348H Introduction to stochastic processes
STA442H Methods of applied statistics

1. In the event that BIO478H5 is not offered in the 4th year of a student's studies, students must take an additional 0.5 credit from the recommended 400-level courses.
2. It is highly recommended that students who wish to pursue graduate studies or employment in the field of bioinformatics take the Independent Project Course.

Notes:

1. Implications for the Department of Biology
 - a. Students registered in this program will have to be given a waiver for the BIO153H5 requirement in order to take BIO207H5. The instructor for this course (M. Sokolowski) has agreed to grant this waiver.
 - b. The proposed joint fourth year course CBJ481Y will not require specific teaching commitments from Biology *per se*. It is envisioned that each student taking this independent project will be primarily supervised by a faculty member in Biology or Chemistry (for the research project itself) and co-supervised by someone in M&CS for guidance in the computing aspects of the project.
 - c. It is not anticipated that the limited number of students expected to be enrolled in this specialist program will have a significant impact on the resources for any of the other Biology courses listed in the program.
2. Implications for Mathematical and Computational Sciences
No new courses in M&CS will be necessary for the introduction of the program.
3. Funding for a Research Assistant/Associate position in Bioinformatics/Biomathematics has been discussed with the Dean. Such a person's teaching load will include helping with the general supervision of the program, and, in particular, co-teaching a half-course, and co-supervision of some of the independent projects. This load will be the equivalent of 1 FCE. This person might also assist with the running of the Synthetic Biology Laboratory (an initiative of M&CS with the collaboration of C&PS and BIO proposed for the Academic Initiatives Fund).

Health Sciences Communication (HSC) Specialist in CCIT

Health Sciences Communication (HSC) is an interdisciplinary specialist program offered through Communication Culture and Information Technology. The HSC program begins in undergraduate year 2 and focuses on health communication and explores the synergistic roles of visuals and text in print and new media.

Through an understanding of theories of visual and written communication, students prepare health/medical/scientific communication material for the digital age by learning to develop visual and written instruments targeted to specific populations.

Opportunities for students upon completion include working in: the health care industry, hospitals, non-profit organizations, pharma companies, public health, and media companies specializing in health sciences. Students could also continue their studies in the MScBMC program or in education (OISE or teachers college).

For more information, please contact:
Professor Linda Wilson-Pauwels, Program Advisor 416-978-5357,
l.wilson.pauwels@utoronto.ca

Within an Honours degree, 13.0 credits are required including at least 1.0 at

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| | <p>the 400 level.</p> <p>Limited Enrolment – Enrolment is highly competitive. Meeting the minimum requirements does not guarantee admission.</p> <p>Prerequisites to enter the Health Sciences Communication Specialization after 4.0 credits include:</p> <ul style="list-style-type: none"> • OAC BIO/BIO Gr. 12 (4U); OAC CHM/CHM Gr. 12 (4U); OAC Calculus/Advanced Functions and Introductory Calculus Gr. 12 (4U); or by permission. • Minimum 4.0 credits in Year 1 to include: CCT100H5, CCT101H5, PSY100Y5, BIO152H5 and BIO153H5 • Minimum annual Cumulative Grade Point Average (CGPA) between 2.70 and 3.00 and never lower than 2.20. • In Year 1 of the CCIT program, a minimum 65% average between CCT100H5 and CCT101H5 and a minimum 65% in BIO153H5. <p>First Year Required 3.0 credits CCT100H5, 101H5; PSY100Y5; BIO152H5, 153H5</p> <p>First Year Required 3.0 credits CCT100H5, 101H5; PSY100Y5; BIO152H5, 153H5</p> <p>Second Year Required 3.0 credits (* indicates Sheridan course) Required 2.5 credits BIO206H5, 210H5; CCT 202H5, 260H5*; WRI203H5 Additional 0.5 credit from the following: CCT204H5*, 205H5*, 206H5, 210H5; VCC201H5 Suggested electives to be taken outside Specialization: CLA201H5; ERI203H5; PHL255H5</p> <p>Third and Fourth Year Required 7.0 credits Required 3.5 credits CCT380H5; HSC300H5, 301H5, 302H5, HSC401H5, HSC402H5; BIO354H5 Additional 3.5 credits from the following: CCT300H5*, 305H5*, 353H5*, 354H5* 373H5, 375H5, 377H5, 380H5, 383H5*, 384H5*, 410H5, 422H5*; HSC400H5, 403H5, 404H5; BIO310H5 Suggested electives to be taken outside Specialization: WRI307H5; SCI398Y5</p> <p>Students who have completed the HSC specialization will also qualify for a minor in biology if they complete additional biology credits.</p> <p>Students interested in continuing their studies at the graduate level in the Master of Science in Biomedical Communications (MScBMC) program (www.bmc.med.utoronto.ca/bmc) must achieve a minimum average of a mid-B or above in the 3rd and 4th years of the Health Sciences Specialization.</p> <p>* 3.0 credits (6 half courses) must be taken at Sheridan to achieve their “Certificate in Digital Communications.”</p> |
| Deleted Programs | <p>Computer Science: Software Engineering Option (ERSPE1039) Computer Science: Information Systems (ERSPE1037)</p> |
| Other Changes | <p>ERMIN2364 Minor Programme in Biology Requirement 2: 1.0 from BIO204H5/BIO210H5 ... Note: Change ‘Three of the four’ to ‘Three of the five’ courses ...</p> <p>ERMAJ2364 Major Programme in Biology Requirement 1: Change Mat 132Y5/138Y5 to MAT 132Y5/134Y5/135Y5/138Y5</p> |

Delete CSC108H5, 148H5.
Remove Note 1. 'No courses outside..... 300/400 level courses'.
Renummer following notes.

ERSPE2364 Specialist Programme in Biology

First Year:

Note 1. Change Mat 132Y5/138Y5 to MAT 132Y5/134Y5/135Y5/138Y5

Delete CSC108H5, 148H5.

Third and Fourth years:

Add BIO 309H5/313H5/314H5

Change 6.0 additional Biology credits to 5.5 additional Biology credits.

Group I Ecology and Field Biology

Add BIO302H5, BIO313H5

Change ENV317 to BIO317H5

Add:

Students who wish to emphasize Ecology may include 1.0 credit from the following list:

GGR305H5, GGR308H5, GGR309H5, GGR311H5

Group IV Cell, Molecular and Developmental Biology

Add BIO314H5, BIO371H5, BIO407H5, CHM361H5 and CHM362H5

Delete BIO353H5

Group V Physiology and Behaviour

Add BIO309H5 and delete BIO422H5

ERSPE0110 Specialist Programme in Biodiversity & Evolutionary Biology

First Year

Requirement 1. Delete MAT132Y5/138Y5 and add MAT132Y5/134Y5/135Y5/138Y5.

Delete CSC108H5, 148H5.

Third and Fourth years

Add Requirement 2. BIO313H5

Change requirement numbers following new requirement 2.

Requirement 3. Change 3.0 to 2.5 FCE

Requirement 5. Delete 353H5 and change ENV317H5 to BIO317H5

ERSPE1118 Specialist Programme in Biotechnology

First year

Delete MAT 132Y5 and add MAT132Y5/134Y5/135Y5/138Y5

Second year

Change IDR201H1 to JBC201H5

Third and Fourth years

Requirement 1. Add BIO314H5

Requirement 2. Change 1.0 to 0.5 credit from BIO304H5, 309H5, 312H5... and change BIO231H5 to CHM231H5

ERSPE1082 Specialist Programme in Ecology

Change first sentence to read:

Within an Honours degree, 14.0 credits are required,

First year

Delete MAT132Y5/138Y5 and add MAT132Y5/134Y5/135Y5/138Y5

Delete CSC108H5, 148H5.

Third and Fourth years

Add Requirement 2. BIO313H5

Change requirement numbers following after new requirement 2.

Requirement 4. Add other OUPFB** field courses

Requirement 6. Delete BIO422H5
 Requirement 7. Add 309H5, 314H5, 371H5
 Requirement 8. Change ENV317 to BIO317H5
 Add GGR305H5/GGR309H5/GGR311H5
 Add** Ontario Universities Program in Field Biology

ERSPE0482 Specialist Programme in Comparative Physiology

First year
 Requirement 1. Delete MAT132Y5/138Y5 and add
 MAT132Y5/134Y5/135Y5/138Y5.
 Delete CSC108H5, 148H5.
 Third and Fourth year
 Requirement 1. Add BIO309H5
 Requirement 3. Change 1.5 to 1.0 additional BIO credit

ERSPE1237 Specialist Programme in Molecular Biology

Remove Horgen and Poe from list of Faculty Advisors
 Add Prof. J.T. Westwood
 Room 3034
 (905) 828-3894
 Prof. M. Havelka
 Room 3059
 (905) 828-5366
 Line 11. Remove the word 'chemistry' and add molecular biology and
 microbiology
 First year
 Delete MAT132Y5/138Y5 and add MAT132Y5/134Y5/135Y5/138Y5
 Third year
 Add BIO314H5
 Change 1.0 to 0.5 of BIO304H5, 310H5, ..
 Fourth year
 BIO 475H, 477H/478H** plus 0.5 of: BIO 452H, 481Y; BCM 335H (G),
 340H(G), 424H(G), 425H(G), 426H(G), 440H(G); CHM 462H, 489Y; MBGY
 420H(G), 425H(G), 428H(G), 432H(G), 445H(G), 480H(G); MGB451H(G),
 452H(G), 460H(G), 470H(G); JBC 472H
 ** In the event that BIO478H is not offered during the 4th year of a student's
 studies, students must take BIO475H plus 1.0 credit from the fourth year list
 above. In such a year, students may take BIO 472H(G) or BCH441H(G) or
 MGB420H(G) as 0.5 of the option credit.

ERSPE1688 Computer Science: Comprehensive Option

- Change the name of the specialist program "Computer Science: Comprehensive Option" to "Computer Science" (still ERSPE1688)
- Below is how the CSC Specialist should look, compared to the current version (Calendar, page 86)
 - same 14.0 credits
 - same boxed comment on Limited Enrollment
 - same First Year
 - delete current Second Year and insert instead
 CSC 207H5, 209H5, 236H5, 258H5, 263H5; MAT 223H5, 224H5, 242H5;
 STA 107H5/257H5
 - delete current Third Year and insert instead
 CSC 324H5, 338H5, 343H5, 363H5, 369H5, 373H5
 - delete current Third or Fourth Year, re-label it as Higher Years, and insert instead
 Six half courses from any 300 or 400 level UTM CSC courses

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| | <p>(including at least 1.0 credits from 400 level courses), except for CSC 492H5 and CSC 493H5</p> <p>ERMAJ1688 Computer Science: Comprehensive Option</p> <ul style="list-style-type: none"> • Change the name of the major program “Computer Science: Comprehensive Option” to “Computer Science” (still ERMAJ1688) • Below is how the CSC Major should look, compared to the current version (Calendar, page 86) <ul style="list-style-type: none"> - same 8.0 credits - same boxed comment on Limited Enrollment - same First Year - delete current Second Year and insert instead CSC 207H5, 236H5, two of (CSC 209H5, 258H5, 263H5); MAT 223H5; STA 107H5/257H5 - delete current Higher Years and insert instead Four half courses from any 300 or 400 level UTM CSC courses, except for CSC 492H5 and CSC 493H5 |
| | <p>ERSPE1338 Forensic Anthropology Specialist</p> <p>2nd Year: Requirement #1: Add optional requirement: ...205H; FSC271H/ PHL271H; BIO204H/210H <i>Delete Requirement #2: at least 0.5 credit in PHY</i></p> <p>3rd Year Requirement : Add optional requirement: ANT306H /FSC310H <i>Delete: FSC301H, Add requirement: FSC300H, 302H</i></p> <p>4th Year Requirement: Add requirement: ...; FSC401H, 402H</p> <p>Change Total # of Required Credits: from 16.0 to 17.0</p> |
| | <p>ERSPE1410 Forensic Biology Specialist</p> <p>1st Year Requirement #1: Add optional requirements: MAT132Y/134Y/135Y/138Y <i>Delete: /(CSC108H, 148H); ...</i></p> <p>2nd Year Requirement: Add optional requirement: ...; FSC271H/PHL271H <i>Delete requirement: BIO205H</i></p> <p>3rd and 4th Year Requirements: <i>Delete: FSC301H, Add requirements: ...361*; FSC300H, 302H, ...</i></p> |
| | <p>ERSPE1009 Forensic Chemistry Specialist</p> <p>1st Year Requirement #1: Add optional requirement: ...; MAT132Y/135Y/138Y; ...</p> <p>Higher Year Requirements – Requirement #1: Add optional requirements: ...FSC239Y; FSC271H/PHL271H; BIO204H/210H <i>Delete Requirement #5: 0.5 credit at the 300/400 level in ...</i> Add/Replace Requirement #5: FSC300H, 302H, 401H, 402H</p> <p>Change Total # of Required Credits: from 13.5 to 16.0</p> |
| | <p>ERSPE1505 Forensic Psychology Specialist</p> <p>1st Year Requirement #1: Add optional requirements: MAT132Y/134Y/135Y/138Y <i>Delete: /(CSC108H, 148H); ...</i></p> |

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| | <p>Add requirements: ;BIO152H, 153H</p> <p>Second and Higher Year Requirements: <i>Delete Requirement #2: at least 0.5 credit in PHY</i> Add/Replace Requirement #2: FSC271H/PHL271H; BIO204H/210H <i>Delete Requirement #3: PHL271H and at least 1.0 credit from: FSC301H</i> Add/Replace requirement: PSY328H/344H</p> <p>3rd & 4th Year Requirements: Requirement #1: 2.5 credits from the following: Add to list: ...PSY320H, ..., 327H, 328H, 331H... <i>Delete PSY322H from list (no longer exists)</i> Add Requirement #2 (new): FSC300H, 302H, 401H, 402H Change Total # of Required Credits: from 15.0 to 17.0</p> |
| | <p>ERMAJ0205 Forensic Science MAJOR</p> <p>First Year Requirement: Add requirement: CHM140Y, MAT132Y/134Y/135Y/138Y</p> <p>Second Year Requirement: Add optional requirement: ...FSC239Y; FSC271H/PHL271H;...</p> <p>Fourth Year Requirement: 2.0 from the following list of FSC courses: <i>Delete requirement: FSC301H...</i> Add/Replace with: FSC300H Add requirements to list of options: ...302H, FSC306H, 310H, 350H, 401H... Change Total # of Required Credits: from 8.0 to 9.0</p> |
| | <p>ERMAJ1944 Physics Major</p> <p>Reorganization and broadening of course options to give students greater flexibility; addition of CHM140Y5 so that physics majors have better preparation to take several JCP courses now offered. 7.5 credits are required including at least 2.5 at the 300/400 level. Year 1: PHY135Y5(minimum 70 %); CHM140Y5; MAT132Y5/134Y5/135Y5/138Y5 Year 2: PHY224H5, 241H5, 245H5 1.0 credits from: PHY237H5, 335H5, MAT212H5/242H5, MAT232H5 Years 3 & 4: PHY324H5; JCP321H5 At least 1.5 credits from: PHY341H5, 334H5, JCP322H5, MAT311H5, JCP410H5/422H5/SCI498H5</p> |
| | <p>ERMIN1944 Physics Minor</p> <p>Reorganization and broadening of course options to give students greater flexibility 4.0 credits are required including 1.5 at the 300/400 level. Year 1: PHY135Y5 Year 2: PHY224H5, 241H5, 245H5/237H5 Years 3 & 4: 1.5 credits from: PHY335H5, 324H5, 341H5, 344H5; JCP321H5, 322H5</p> |
| | <p>ERMIN0307 Science Education Minor</p> <p>To the list of "one of ..." in higher years, add "SCI498H"</p> |

RESOURCE IMPLICATIONS (to be filled out only if *additional* resources, including library resources and infrastructure will be required to support course/program changes). Please note that all resource implications must be approved by the Dean before transmittal of change (s) to the Academic Affairs Committee.

| Course No. and Name and/or Program Name | Brief comment on the rationale for <i>additional</i> resources |
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| Bioinformatics Specialist Program | A Research Assistant/Associate position in Bioinformatics/ Biomathematics has been discussed with the Dean. If necessary, it will be funded from Enrolment Growth positions. However, other funding options are being pursued. Such a person's teaching load will include helping with the general supervision of the program, and, in particular, co-teaching a half-course, and co-supervision of some of the independent projects. This load will be the equivalent of 1 FCE. This person might also assist with the running of the Synthetic Biology Laboratory (an initiative of M&CS with the collaboration of C&PS and BIO proposed for the Academic Initiatives Fund). |
| BIO201H5, 302H5, 309H5, 313H5, 314H5, 371H5, 400Y5 | <p>The curriculum changes proposed by the Department of Biology have no serious resource implications with respect to teaching power. We have added 2.5 FCEs but three of our most recent hires will come up to full teaching loads next year and we expect to hire two new faculty in July 2005. The ample electronic journals already within the Library system will suffice.</p> <p>We are currently speaking with the Dean, Cheryl Misak, regarding putting in place a strategy for replacing and purchasing equipment in the teaching laboratories. This is required so that we can continue to deliver quality education to our students.</p> |
| Computer Science Specialist Program | Up to 6 additional half-stipends required to mount advanced courses needed for a UTM-based program. |
| FSC239Y Forensic Science | <p>The addition of a tutorial session to approach the hours required for program accreditation and due to the large size of this class, incorporating a tutorial session would also enhance the student learning experience.</p> <p>An increase in TA hours will be required.</p> |
| FSC271H Case Law: a practical approach. | <p>There is a need for more forensic (i.e. legal) thought in the preparation of our graduates. Forensic science is after all defined as science in service to the courts of law. This is becoming more evident in the requirements for accreditation of forensic science programs by the American Academy of Forensic Sciences.</p> <p>140h TA one half stipend</p> |
| FSC301H renumbered to FSC300H | <p>Discontinuing FSC301H. The replacement course (FSC300H) will equip graduates with equivalent of a professional Scene of Crime Officer (SOCO) course.</p> <p>This involves additional equipment and supplies for the practical sessions.</p> |
| FSC302H | <p>Upgraded to include experience with a full AFIS (Automatic Fingerprint Identification System) suite of software and hardware.</p> <p>This first-known use in academia has costs.</p> |

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| FSC306H Forensic Identification Field School | In addition to the Forensic Identification suite of courses. This course will take the theoretical aspects learned in the previous forensics identification courses and apply them in the context of a crime scene, working as a team, to provide a more realistic approach to forensic identification. The follow-up in-class component in this course will focus on communication of evidence with written reports, verbal presentations and a mock trial. This course would require 0.5 stipend. |
| FSC310H DNA Evidence in FSC | The increase in practical hours from 13 to 26 for this course would require an increase in the number of TA hours from 140 to 180-200. As well, with a slight increase in the course budget, we could also incorporate laboratory techniques currently not covered in the course, such as mtDNA sequencing. |
| FSC350H Special Topics in Forensic Science | Request by Dean's Office for flexibility. This course takes advantage of the many local scholars and practitioners in this interdisciplinary science and who can introduce and critically evaluate emerging approaches and technologies. It also offers much needed flexibility to accommodate large demand for forensic science courses from local students including both those who are not and are not in a forensic science program. Also an opportunity to try out models for courses such as computer security and digital evidence with Computer Science or crime scene reconstruction with Engineering or statistics for the courts with Statistics or physics for forensic scientists with Physics or in evidence with Law. Needed one half stipend. |
| JCP410H5, SCI498H5, CHM416H5 | Will be taught by existing faculty. |
| Health Sciences Communication (HSC) Specialist in CCIT | A minimum of \$1,000 annually will be transferred from the BMC Operating Budget to the UTM Library to purchase resources (books and journals) required for the HSC courses. |
| MAT134Y Calculus for Life Sciences | 1 additional full stipend needed to mount a separate calculus course for Life Sciences. |
| PSY310, 328, 353, 354, 355, 371 | All new courses will be taught by new or existing faculty members with no resource implications other than normal teaching related costs (<i>i.e.</i> , TAs, photocopying) |

COURSE CHANGES:

- **New Courses:**

| Course #1 | <i>BIO201H5 Biology behind the news</i> |
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| Description | Learn about biology by studying the underlying science behind the news: current issues will be chosen to reflect different areas of biology from disease/microbiology (e.g. West Nile, SARS, HIV) to physiology (e.g., diet fads, illegal drugs, sunblock) to genetics and genomics (e.g., GMO, inherited syndromes, forensics) to ecology (e.g., conservation, global warming). This is a biology course for students in the Humanities and Social Sciences as well as |

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| | other non-Biology Sciences. [39L] |
| Exclusion | None |
| Prerequisite | None |
| Corequisite | None |
| Recommended preparation | None |
| Distribution | Science |
| Rationale for creation of course | Our current introductory courses are part of life science programs and are not appropriate for students lacking a background in biology. Therefore, we are adding a special course for non-biology students. |
| Offered at St George | No |
| Revived Course | No |
| Course #2 | <i>BIO302H5 Arctic Ecology</i> |
| Description | Ecology of arctic ecosystems. This two-week summer field course is offered every other year and has been held at the Northern Studies Centre in Churchill, Manitoba. Instruction will combine lectures with field trips to local tundra and boreal forest sites; students also will be responsible for completing an independent project based on local field work. Dates, instructors, and material covered vary from year to year. Information on balloting for this course is available from Mrs. Brenda Samuels, Room 3030, South Building. |
| Exclusion | |
| Prerequisite | BIO152, 153, or P.I. |
| Corequisite | |
| Recommended preparation | At least one additional course in Ecology |
| Distribution | Science |
| Rationale for creation of course | This is not a new course. This field course has always been offered (in alternate years) by Peter Kotanen but was missed from the calendar a few years ago (after 1995-96) and is now being replaced. |
| Offered at St George | Yes |
| Revived Course | No |
| Course #3 | <i>BIO309H5 Laboratory in Physiology</i> |
| Description | A laboratory course to complement BIO304H5, BIO310H5 and BIO312H5. Experiments are designed to familiarize students with techniques and experimental design commonly used in the study of physiology. A one hour lecture each week provides an experimental and theoretical basis for each laboratory. Topics include pharmacology, enzyme kinetics, neurophysiology, respiration, photosynthesis and metabolic rate. [13L, 50P] |
| Exclusion | None |
| Prerequisite or Corequisite | BIO304H5, BIO310H5, BIO312H5 |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | Introduction of a new laboratory course in Physiology with current labs will allow students who are interested in the area of physiology to learn experimental design, analysis and presentation of data and different biological preparations specific to Physiology. |

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| | The skills learned will be those related to discovery and experimentation but will be particular to physiology. Students will learn data analysis and preparation such as measurement of muscle contraction leading to dose response curves, parameters around nerve potentials leading to conduction rates, amplitude and duration measurements, etc. Students will also learn different preparations from micro-dissection to how organs work. Other skills will involve statistics related to the analysis of physiological experimentation. |
| Offered at St G. | No |
| Revived Course | No |
| Course #4 | <i>BIO313H5 Field Methods and Quantitative Analyses in Ecology</i> |
| Description | Practical exposure to field and laboratory research methods on plant, animal, and microbial communities including study design, data collection, statistical analysis, and interpretation of results. [39P, 26T] |
| Exclusion | None |
| Prerequisite | BIO205H5 |
| Corequisite | BIO360H5 |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | Practical hours in BIO205, 330 and 360 are consolidated into a laboratory course with an integrated, practical exposure to all aspects of ecological research. It will be directed at Biology majors and specialists particularly interested in ecology, and will provide advanced training in methodology. |
| Offered at St George | No |
| Revived Course | No |
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| Course #5 | <i>BIO314H5 Laboratory in Cell and Molecular Biology</i> |
| Description | Students are introduced to commonly employed techniques in cell biology such as cellular fractionation, polyacrylamide gel electrophoresis, western blotting, and immunolocalization. Students will also perform some advanced molecular biology techniques including the cloning and transformation of genes, DNA sequencing and the expression of proteins in bacterial and/or model systems. Each week a 1-hour lecture provides an introduction and theoretical basis for the lab. [13L, 50P] |
| Exclusion | None |
| Prerequisite | BIO215H5 |
| Corequisite | BIO315H5 |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | The main impetus for having this new course is to allow more students to take BIO315H (Cell Biology) by removing the labs from that course into this course. In addition, it is proposed that the labs (or their equivalent) from BIO475 be removed from that course and placed into this course. This new laboratory course will be a valuable experience for students interested in the area of cell & molecular biology. |
| Offered at St George | No |
| Revived Course | No |
| Course #6 | <i>BIO371H5 Microbiology Lectures</i> |
| Description | In-depth discussion of bacterial structure and ultrastructure; physiology and nutrition; growth and cultivation; nature of viruses (bacteriophage and a limited |

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| | survey of animal viruses and their properties); microbial genetics; immunology; the role of micro-organisms in medicine, industry, agriculture and ecology. [52L] |
| Exclusion | BIO370Y5 |
| Prerequisite | BIO206H5, 207H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | The main impetus for having this new course is to allow more students to take Microbiology. By making a separate lecture only course, fewer prerequisites will be required to take this version of the course (i.e. BIO215 will not be required). |
| Offered at St George | No |
| Revived Course | No |
| Course #7 | <i>BIO400Y5 Biology Internship</i> |
| Description | Through a part-time, unpaid 200 hour work placement, fourth year students apply biology content and skills. Placements are made throughout the GTA in both the private (e.g., pharmaceutical or biotech companies) or public (e.g., Peel Region Medical Office, hospitals, Great Lakes Laboratory) sector. Monthly class meetings plus year end report and presentation are required. Students in a biology specialist program are given priority. Apply by May 15 th to the Course Coordinator, A. Cordon (SE3057), acordon@utm.utoronto.ca |
| Exclusion | ENV400Y5 |
| Prerequisite | 4 th year standing in Biology Specialist or Major Programme, 3.0 CGPA, PI. |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | This internship will provide an alternative to the fourth year research project BIO481Y5Y for excellent students. Work experience will help student decide on future opportunities after graduation; the classroom meetings facilitate the transition from university to the workplace. ENV400Y, Environmental Internship, has been running for several years very successfully. ENV400 has Biology students regularly because we do not have an equivalent course. Under the "BIO400" name, we can also add other types of internships including ones requiring more physiology and molecular biology background. |
| Offered at St George | No |
| Revived Course | No |
| Course #8 | <i>CBJ481Y5 Independent Project in Bioinformatics</i> |
| Description | This course is intended for students in the Bioinformatics Specialist degree program. Possible areas in which the research may take place include: functional genomics (e.g., microarray and proteomic data analysis); systems biology; and the development of novel analytic methods for large datasets. Students will be required to produce a written document of their project and present it orally. In order to enroll in this course, students must obtain, several months in advance, approval from a faculty member(s) who will serve as supervisor(s). |
| Exclusion | |
| Prerequisite | Permission of Instructor/Supervisor |
| Corequisite | BIO478H |
| Recommended preparation | CSC343H, JBC372H |
| Distribution | Science |

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| Rationale for creation of course | This course will provide an opportunity to perform independent research in the field of Bioinformatics. It is primarily intended for students enrolled in Bioinformatics Specialist program. |
| Offered at St George | No |
| Revived Course | No |
| Course #9 | <i>CHM416H5 Separations, Chromatography and Microfluidics</i> |
| Description | Separation science will be explored by building on a survey of fundamental physical principles to understand processes of extraction, and technologies such as solid phase microextraction, supercritical fluid extraction, immunoaffinity extraction and molecularly imprinted polymers. Plate and rate theory will be developed to consider various forms of gas and liquid chromatographic methods, including hyphenated techniques that bridge to information detectors such as mass spectrometers. New opportunities for chromatography and separations by movement to small scale size will be considered by focusing on microfluidics, electro-osmotic flow and chip based microdevice applications. [26L, 13T] |
| Exclusion | CHM416H1 |
| Prerequisite | CHM311H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | Offered due to demand of UTM students in Chemistry and Forensic Science – Chemistry programs. Fills a gap in Chemistry offerings at UTM that is relevant to programs in Chemistry, Forensic Science and Environmental Science. |
| Offered at St George | Yes |
| Revived Course | No |
| Course #10 | <i>CSC321 Information Theory</i> |
| Description | Measuring information. The source coding theorem. Data compression using ad hoc methods and dictionary-based methods. Probabilistic source models, and their use via Huffman and arithmetic coding. Noisy channels and the channel coding theorem. Error correcting codes, and their decoding by algebraic and probabilistic methods. |
| Exclusion | |
| Prerequisite | CSC207H5; STA257H5; MAT223H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Yes |
| Revived Course | |
| Course #11 | <i>CSC338H5 Computational Methods</i> |
| Description | The study of computational methods for solving problems in linear algebra, non-linear equations, approximation, integration, and ordinary differential equations. The aim is to give students a basic understanding of both floating-point arithmetic and the methods used to solve numerical problems as well as a familiarity with the types of subroutines found in typical software packages. |

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| Exclusion | CSC350H5 |
| Prerequisite | CSC207H5/270H5; MAT132Y5/138Y5, 223H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | CSC350H5, a numerical course, is being dropped and CSC338H5 is its replacement. CSC338H5 is more suited to an Erindale-resident specialist program. |
| Offered at St George | No |
| Revived Course | |
| Course #12 | <i>CSC407H5 Software Architecture and Design</i> |
| Description | An introduction to the development of system-level architectures and class-level object-oriented designs for software systems. Special emphasis on the study of architecture and design patterns: the core of solutions to commonly occurring design problems. Representations of design/architecture (with emphasis on the use of UML as a class-level design notation), architectural assessment, product lines, architecture extraction, and re-factoring. There is no major project, but there is a series of smaller design and architecture exercises requiring some programming. A knowledge of UML as used for requirements analysis and a working knowledge of both the C++ and Java languages are assumed. |
| Exclusion | |
| Prerequisite | CSC340H5, CSC263H5/378H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Yes |
| Revived Course | |
| Course #13 | <i>CSC438H5 Computability and Logic</i> |
| Description | Computable functions, Church's thesis, unsolvable problems, recursively enumerable sets. Predicate calculus, including the completeness, compactness, and Lowenheim-Skolem theorems. Formal theories and the Gödel Incompleteness Theorem. |
| Exclusion | MAT309H5 |
| Prerequisite | CSC363H5/364H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Yes |
| Revived Course | |
| Course #14 | <i>CSC448H5 Formal Languages and Automata</i> |

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| Description | Regular, deterministic, context free, context sensitive, and recursively enumerable languages via generative grammars and corresponding automata (finite state machines, push down machines, and Turing machines). Topics include complexity bounds for recognition, language decision problems and operations on languages. |
| Exclusion | |
| Prerequisite | CSC236H5/238H5, CSC363H5/364H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Yes |
| Revived Course | |
| Course #15 | <i>CSC458H5 Computer Networks</i> |
| Description | Computer communication network design and operation. Representation of information on physical channels; error detection and recovery; local area networks; deadlock and congestion avoidance; internetworking and gateways; network naming and addressing; remote procedures. Emphasis on fundamental principles rather than case studies, but with examples from real networks. |
| Exclusion | |
| Prerequisite | CSC258H5, CSC363H5/364H5/373H5/378H5; STA257H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Yes |
| Revived Course | |
| Course #16 | <i>CSC469H5 Operating Systems Design and Implementation</i> |
| Description | An in-depth exploration of the major components of operating systems with an emphasis on the techniques, algorithms, and structures used to implement these components in modern systems. Project-based study of process management, scheduling, memory management, file systems, and networking is used to build insight into the intricacies of a large concurrent system. |
| Exclusion | |
| Prerequisite | CSC369H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | To offer flexibility in providing more Erindale-resident courses for students |
| Offered at St George | Listed at St. George, still to be offered |
| Revived Course | |

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| Course #17 | <i>FSC271H Case Law: A Practical Approach</i> |
| Description | This course covers three main areas of importance to the forensic scientist and the expert witness: Ethics in forensic science; The scientific theories of proof and evidence including the critical thinking and logic; Analysis of how the major philosophical schools of thought impact on forensic science. [26L,13T] |
| Exclusion | none |
| Prerequisite | FSC239Y |
| Corequisite | None. First choice given to FSC specialists and majors |
| Recommended preparation | none |
| Distribution | SCI |
| Rationale for creation of course | There is a need for more forensic (i.e. legal) thought in the preparation of our graduates. Forensic science is after all defined as science in service to the courts of law. This becoming more evident in the requirements for accreditation of forensic science programs by the American Academy of Forensic Sciences. |
| Offered at St G | No |
| Revived Course | No |
| Course #18 | <i>FSC300H Forensic Identification</i> |
| Description | Text description is the same as the old FSC301H. [26L, 13P] |
| Exclusion | FSC301H |
| Prerequisite | FSC239Y5, CHM140Y5 |
| Corequisite | None. First choice given to FSC majors and specialists |
| Recommended preparation | None |
| Distribution | SCI |
| Rationale for creation of course | Replacement of FSC301H |
| Offered at St George | No |
| Revived Course | No; Replacement of FSC301H |
| Course #19 | <i>FSC306H Forensic Identification Field School</i> |
| Description | Introduction to the field of forensic identification field techniques and crime scene interpretation. A 2-week field school will be held on the UTM Campus (Monday-Friday 9-5, last 2 weeks of August.) Weekly 2 hour classes will be held during the fall term. In these classes, students will examine photos and other evidence collected in the field, for the purpose of crime scene reconstruction and presentation in court. This field school will be held in conjunction with the Forensic Anthropological Field School (ANT306H) where students will process the scene together as a team, a Forensic Anthropological team and a Forensic Identification team, as is done in real life. [106P] |
| Exclusion | |
| Prerequisite | FSC239Y5, FSC300H, 302H |
| Corequisite | None. First choice given to FSC majors and specialists |
| Recommended preparation | None |
| Distribution | SCI |
| Rationale for creation of course | In addition to the Forensic Identification suite of course. This course will take the theoretical aspects learned in the previous forensics identification courses and apply it in the context of a crime scene, to provide a more realistic approach to forensic identification. The follow-up in-class component in this course will focus on communication of evidence with written reports, verbal presentations and a mock trial. |
| Offered at St G. | No |
| Revived Course | No |

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| Course #20 | <i>FSC350H Special Topics in Forensic Science</i> |
| Description | A survey of recent developments in theory and applications of forensic science with particular attention to case studies in a particular branch of forensic science. [26L] |
| Exclusion | none |
| Prerequisite | FSC239Y |
| Corequisite | none |
| Recommended preparation | none |
| Distribution | SCI |
| Rationale for creation of course | This course takes advantage of the many local scholars and practitioners in this interdisciplinary science and who can introduce and critically evaluate emerging approaches and technologies. It also offers much needed flexibility to accommodate large demand for forensic science courses from local students including both those who are and are not in a forensic science program. |
| Offered at St George | No |
| Course #21 | <i>HSC400H5 Advanced Visual Media for Scientific Communication Project</i> |
| Description | This course focuses on visual media for scientific communication of biological specimens or subject matter using a variety of tools ranging from pencils to pixels, photography and 3D animation. Students will create original scientific images in support of their specific areas of study (26 Seminar, 13 Tutorial) |
| Exclusion | CCT 400H5, VCC 400H5 |
| Prerequisite | HSC302H5 |
| Distribution | SCI |
| Rationale for creation of course | This course synthesizes theories of visual communication with biological sciences. It prepares students for the task of preparing accurate recordings of their observations as well as visualizing the subjects of their studies in biology for teaching or publication (in print or electronic media). |
| St George | No |
| Revived Course | No |
| Course #22 | <i>HSC401H5 Web-Based Health Communication Design</i> |
| Description | An introduction to the principles of health communication design, this course examines the characteristics of effective audience-specific Web design. This includes issues of culture, ethnicity, age, and design literacy in the development of health communication material. Students will analyze existing websites and design a website on a current health topic (13 Lectures, 13 Seminars, 13 Tutorials) |
| Prerequisite | CCT 260H5, HSC 300H5, or PI |
| Distribution | Social Science |
| Rationale for creation of course | This course synthesizes principles of web design with theories of health communication. It prepares students for the task of working in collaboration on the development of audience-specific material designated for use in either an E-learning or patient education context. |
| St George | No |
| Revived Course | No |
| Course #23 | <i>HSC402H5 E-Learning in Health Care</i> |
| Description | An introduction to design, development and evaluation of E-Learning courses for health sciences education or health care practice. Theories of distributed learning, collaborative knowledge building and design research will be reviewed. Focus is on effective communication expressed through multi-media/multi-modal knowledge representation and shared cultural literacy for online communities (26 Lectures, 13 Tutorials) |
| Prerequisite | HSC401H5 |

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| Distribution | Science |
| Rationale for creation of course | This course offers a unique experience that combines face-to-face teaching (in class) with internet-based collaborative learning methods. It fills a gap in current courses available, introducing concepts of constructivist theory-based design and design research evaluation for the development of E-Learning environments in health sciences contexts. |
| St George | No |
| Revived Course | No |
| Course #24 | <i>HSC404H5 Advanced Visual Media for Anthropological Data</i> |
| Description | This course examines the visual representation of physical evidence in the field of paleoanthropology. Photography, traditional illustration, and digital rendering are used to produce scientific graphics in support of published research results. The requirements of phylogenetic trait analysis and visual communication theory direct the practical application of rendering techniques (26 Seminars, 13 Tutorials) |
| Prerequisite | ANT332Y5 or ANT334H5, HSC302H5 or PI |
| Distribution | Science |
| Rationale for creation of course | This course synthesizes theories of visual communication with fields in anthropology. It prepares students for the task of creating accurate recordings of their observations as well as visualizing the subjects of their studies in anthropology for teaching or publication (in print or electronic media). This course fills a void in that it enhances students' creative thinking through visual problem solving. |
| St George | No |
| Revived Course | No |
| Course #25 | <i>JCP410H5 Modelling of Biochemical Systems</i> |
| Description | An introduction to mathematical modelling of complex biological systems. The primary focus will be on biochemical kinetic models and the nonlinear dynamics that arise from them. An introduction to and survey of techniques in mathematics (especially nonlinear dynamics and stochastic processes) will be presented, along with an overview of numerical methods for computational simulation, including an introduction to molecular modelling. [26L] |
| Exclusion | None. |
| Prerequisite | PHY135Y5/137Y5; MAT212H5/222H5/223H5/232H5/242H5; CHM221H5/PHY241H5/PHY245H5 |
| Corequisite | |
| Recommended preparation | MAT212H5/242H5 |
| Distribution | Science |
| Rationale for creation of course | There is increasing interest in applying approaches from the physical sciences to problems in biology. Further, the inclusion of a discussion of chemical kinetics enhances the coverage of kinetics in our course offerings. The course will be largely self-contained, drawing on fairly low level mathematical and physical prerequisites while presenting more advanced concepts, teaching the necessary background along the way. This makes it accessible to students who might not be intending to pursue full physics or physical chemistry programmes, but who still have an interest in cross-disciplinary studies connecting biology and the physical sciences. The course will be cross-listed as a graduate course in the Chemistry graduate department. |
| Offered at St George | No. |
| Revived Course | No. |
| Course #26 | <i>MAT134Y5 Calculus for Life Sciences (78L, 26T)</i> |

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| Description | Limits, continuity. Techniques of differentiation and integration with applications to the life sciences. Extreme values and optimization. Graphing. Introduction to sequences and series. Vectors and matrices. Introduction to discrete and continuous time modeling. Extreme values of functions of several variables. |
| Exclusion | MAT132Y5, MAT133Y5, MAT135Y5, MAT138Y5 |
| Prerequisite | MCB4U/OAC Calculus |
| Corequisite | BIO152H5 |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | A course in calculus in which the applications are predominantly in the life sciences. Students may take further courses in MAT if they decide they wish to do so. |
| Offered at St George | No |
| Revived Course | |
| Course #27 | <i>MAT135Y5 Calculus (78L, 26T)</i> |
| Description | Trigonometric functions. Limits, continuity. Review of differential calculus; applications. Graphing, extreme values and optimization. Integration and fundamental theorem; applications. Sequences and series. Introduction to differential equations. |
| Exclusion | MAT132Y5, MAT133Y5, MAT134Y5, MAT138Y5 |
| Prerequisite | MCB4U/OAC Calculus |
| Corequisite | |
| Recommended preparation | |
| Distribution | SCI |
| Rationale for creation of course | Proposed prerequisite changes for MAT132Y5 (the basic calculus course for science students) made them identical to those for MAT135Y1. It was decided to discontinue MAT132Y5 and replace it by MAT135Y5. This has the advantage of being a higher course number than MAT133Y1, which does not fulfill calculus prerequisites for second year MAT courses. |
| Offered at St George | Yes |
| Revived Course | |
| Course #28 | <i>PSY310H5 Adolescence and Emerging Adulthood</i> |
| Description | A survey of research findings and theories concerning the physical, cognitive, personality, and social growth of adolescents and emerging adults. Topics include pubertal development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviours, and development through transitional periods. |
| Exclusion | |
| Prerequisite | PSY201H5/equivalent, 210H5/213H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | Our existing Social Development course (PSY311H5) is splitting into two – an infant and childhood course (see revised description below) and this proposed Adolescent and Adulthood course. |
| No. of hours of instruction | 39L |

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| Offered at St George | No |
| Revived Course | No |
| Course #29 | <i>PSY328H5 Psychology and the Law</i> |
| Description | An examination of relevant research and contemporary methodologies examining phenomena encountered in the justice system. Topics include jury decision-making, violence and risk assessment, eye-witness evidence, insanity, psychopathy and anti-social personality disorder, sentencing, treatment of special offender groups, and criminal profiling. Students will learn how to apply the scientific method to examine behaviours that occur in a legal context. |
| Exclusion | |
| Prerequisite | PSY201H5/equivalent, 220H5/240H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | Important and current field. Will provide major contribution to Forensic Science/ Forensic Psychology Program. Currently only one PSY courses (PSY344H5 – Forensic PSY) is offered to support FSC program. |
| No. of hours of instruction | 39L |
| Offered at St George | Yes |
| Revived Course | No |
| Course #30 | <i>PSY353H5 Developmental Psychobiology of Social Behaviour</i> |
| Description | The course will focus on the development and organization of brain mechanisms underlying sensation, recognition, memory, cognition, motor behaviour, and cognition and emotion regulation with a focus on the behavioural expression of social attachment and affiliation in mammalian species. Circumstances and events that can lead to diminished function and developmental psychopathology in humans will be considered. |
| Exclusion | |
| Prerequisite | PSY201H5/equivalent, 252H5/290H5/295H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | New course in exciting interdisciplinary area in psychology. |
| No. of hours of instruction | 39L |
| Offered at St George | No |
| Revived Course | No |
| Course #31 | <i>PSY354H5 The Biopsychology of Sex</i> |
| Description | This course is an introduction to the scientific study of human sexuality. Topics covered may include sexual development, sexual orientation, sex practices, sexuality across the lifespan, sexual dysfunction and sexually transmitted diseases. |
| Exclusion | ANT331H5, NEW261Y1 |
| Prerequisite | PSY201H5/equivalent, 252H5/290H5/295H5 |

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| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | New course to satisfy the third year level Neuroscience requirement in the PSY Major and Specialist programs. Course will deal with an important “hot” topic from a scientific perspective. |
| No. of hours of instruction | 39L |
| Offered at St George | No |
| Revived Course | No |
| Course #32 | <i>PSY355H5 Introduction to Animal Behaviour Genetics</i> |
| Description | An introduction to the genetic analysis of behaviour. The concepts and methods of classical Mendelian genetics, quantitative genetics, and recombinant DNA technology-based reverse and forward genetic approaches will be discussed as they relate to the analysis of animal behaviour. |
| Exclusion | |
| Prerequisite | PSY201H5/equivalent, 252H5/290H5/295H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | New course in exciting area in neuroscience. Will likely be one of the core courses in the joint PSY/BIO Behaviour Genetics program to be proposed next year. |
| No. of hours of instruction | 39L |
| Offered at St George | No |
| Revived Course | No |
| Course #33 | <i>PSY371H5 Higher Cognitive Processes</i> |
| Description | This course covers selected topics pertaining to higher cognitive processes including expertise, consciousness, creativity, and human and artificial intelligence. |
| Exclusion | |
| Prerequisite | PSY201H5/equivalent, 270H5 |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science |
| Rationale for creation of course | The UTM PSY Department has never offered an upper year level course on this subject. Most 300 series cognition courses were on language. We now have the faculty to mount such a course that will be vital for students interested in studying cognition beyond the second year introductory course. |
| No. of hours of instruction | 39L |
| Offered at St George | Yes |
| Revived Course | No |
| Course #34 | <i>SCI498H5 TOPS: Teaching Opportunity Program in the Sciences</i> <i>Abbreviated course title (20-character limit): Sci Ed Practicum</i> |

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| Description | An individual unpaid placement in which students integrate and apply their understanding of science and education by observing, actively participating in, and reflecting on the teaching and learning process in a specific undergraduate science course, under the supervision of an experienced instructor/mentor. Students must plan and register for the course in April of the previous academic year. Enrolment will depend on the availability of positions. [13L, 26P] |
| Exclusion | None |
| Prerequisite | At least 10.0 courses completed; enrolment in a life, mathematical, or physical science major or specialist program; an average of B-(CGPA≥2.7) or higher; SCI398Y as a Prerequisite or as a Corequisite |
| Corequisite | |
| Recommended preparation | |
| Distribution | Science; counts toward the B.Sc. degree |
| Rationale for creation of course | <p>Academic relevance: Science education is an intellectually challenging area of research and practice, an important activity and career in today's society, and an integral part of each science discipline. SCI498H will enable students in the life, mathematical, and physical sciences to apply their understanding of science (gained through a program) and of science education (gained through SCI398Y) to a specific undergraduate science or math course environment, supervised and mentored by an experienced instructor, and supported by the Science Education Program, by other science education experts within the UTM departments, and by the UTM Academic Skills Centre. By observing and monitoring teaching and learning, through active participation as peer mentors in focused study groups, and by reflecting on their experiences, students will gain a deeper understanding of the pedagogical issues in a specific course in a specific discipline. The student is <i>not</i> responsible for teaching course content in lectures, laboratories, or tutorials.</p> <p>Governance: The course will be overseen by a Course Co-ordinator. Especially for the first year or two of the course, there will be a Course Committee to monitor and evaluate the delivery of the course, and the evaluation and assessment of the students.</p> <p>Instruction: Each student is supervised and mentored by an experienced instructor. Additional instruction may be provided in TOPS workshops organized through the Science Education Program, and the Academic Skills Centre. Nominally, this is one hour a week. The additional instruction may be provided by the Academic Skills Centre [e.g. Cleo Boyd], the Science Education program [e.g. John Percy], or by other experts from the science departments. The supervisor will not necessarily be expected to teach science pedagogy to the students.</p> <p>Evaluation: The student's final mark is based on a combination of: a journal, a portfolio of study materials created and used, short assignments in the TOPS workshops, a short year-end presentation to TOPS students and faculty, a final reflective report, and the supervisor's assessment of performance. As with other fourth-year project and placement courses, the evaluation "quality control" will be achieved through the Course Coordinator and, especially for the first year or two, through the Course Committee.</p> <p>Enrolment: The enrolment will be patterned on the Research Opportunity Program. Instructors willing to supervise a student will so indicate in March. Students will apply to the TOPS program in April. Enrolment on ROSI will be confirmed when a student and supervisor have come to a mutual agreement, and is conditional on the student satisfying the prerequisites and corequisites</p> |
| Offered at St George | No |

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| Revived Course | No |
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Note: copy and paste above table for as many course additions as needed

▪ **Deleted Courses:**

| Course No. and Name | Rationale for deletion |
|---|--|
| BIO353H5 Plant Growth and Development | Course has not been offered for the past five years. |
| BIO422H5 Bioacoustics | Course will no longer be offered (Prof. has retired). |
| CSC350H5 Numerical Algebra and Optimization | This is being dropped in favour of CSC338H5, a course more suited to an Erindale-resident specialist. |
| ERS 336H5 Remote Sensing in Geology | This course has not been taught for the last 5 years. |
| FSC301H Forensic Identification | Addition of major SOCO training component to new FSC300H. SOCO will be needed by new enrolls into FSC302H. |
| MAT132Y5 Calculus | See MAT135Y5. |
| MAT222H5 Short Course in Linear Algebra | This is a dead end course. Students should take the slightly higher level MAT223H5, or else the revised differential equations course MAT212H5 which contains a little linear algebra. |

▪ **Renumbered Courses:**

| Course No. and Name | Brief comment on the rationale for change |
|---|---|
| CCT362H5 Communication for Health Promotion | Designation, Number and Name changed to: HSC300 Health Communication to be sequential and to better reflect the goals of the new specialization |
| CCT391H5 Introduction to Data and Information Visualization | Designation and Number changed to: HSC301H5 Introduction to Data and Information Visualization to be sequential |
| CCT392H5 Introduction to Biocommunication Visualization | Designation and Number changed to: HSC302H5 to be sequential |
| CCT425H5 Visual Forensic Demonstrative Evidence | Designation, Number and Name changed to: HSC403H5 Visualization of Forensic Demonstrative Evidence to be sequential and to better reflect the goals of the new specialization |

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| CHM422H5 NMR Spectroscopy | Number changed to: JCP422H5. Name remains the same. This permits Physics undergraduates to take this course. |
| FSC301H Forensic Identification to FSC300H Forensic Identification | Content of 300H is enhanced by new SOCO component Already described above in deleted and added courses. |
| STA258H5 | STA248H5 is being renumbered to have a number higher than the prerequisite course, STA257H5 |

▪ **Reweighted Courses:**

| Course No. and Name | Brief comment on the rationale for change |
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▪ **Description Changes:**

| Course No. and Name | Brief comment on the rationale for change |
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| BIO152H5 Introduction to Evolution and Evolutionary Genetics | [26L, 19P] Change in laboratory design. |
| BIO205H5 Ecology | An introduction to the scientific study of ecology, emphasizing the structure and dynamics of populations, communities and ecosystems. Topics include population growth and regulation, competition, predation, biodiversity, succession, and nutrient cycling. Classic models and studies will be supplemented with both plant and animal examples. [26L, 18T] Prerequisites: (BIO152H5, 153H5) / ENV 100Y5 for students in Environmental programs |
| BIO206H5 Introductory Cell and Molecular Biology | Remove sentence "In the tutorial..." and add: Tutorials will emphasize and consolidate concepts from lecture and text through individual and group assignments. [26L, 18T] Prerequisite: P.I. for students in the Health Science Specialist Program |
| BIO215H5 Laboratory in Molecular Biology and Genetics | Add word 'Biology' in name of course. |
| BIO304H5 Change Name 'Neurobiology' to Physiology of Neural Systems | [26L, 12T] Course components changed due to new, enhanced laboratory course |
| BIO310H5 Physiology of Regulatory Systems | [39L] Prerequisites: BIO204H5/210H5 Course components changed due to new, enhanced laboratory course |
| BIO312H5 Plant Physiology | [39L] Course components changed due to new, enhanced laboratory course |

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| BIO315H5 Advanced Cell Biology | Remove the hyphen from polyacrylamide [26L, 13T] |
| BIO317H5 Changing Ontario Environments (formerly ENV317H5) | A survey of Ontario's major ecosystems from Hudson Bay to Lake Erie, including tundra, forest, prairie, and wetland systems. The ecology of modern environments is discussed and placed in the context of past climatic and human influences. This course combines lectures with excursions to examples of the ecosystems discussed; there are several field trips to local sites, and three overnight trips (currently Algonquin Park, Lake Erie, and the Bruce Peninsula). Students must be willing to carpool. [13L, 60P] Exclusion: ENV317H5 Prerequisites: BIO 205H5 Recommended preparation: ENV 100Y5, BIO 330H5 Offered in alternate years |
| BIO330H5 Plant Ecology | A survey of the population and community ecology of plants. Topics include resource acquisition, growth and reproduction, mutualisms, competition, defence, invasions, disturbance, population dynamics, and community structure. Interactions with other plants, diseases, and animals particularly are emphasized. [39L] Prerequisite: BIO205H5 Recommended corequisite: BIO313H5 |
| BIO360H5 Biometrics I | [26L, 13T] Course components changed due to new, enhanced laboratory course |
| BIO370Y5Y Microbiology | Prerequisites : Remove CHM140Y5 |
| BIO380H5 Human Development | [26L, 13T] Prerequisite: BIO206H5 Recommended preparation: BIO204H5/207H5/315H5 Remove corequisite |
| BIO405H5 Ecology of Communities and Ecosystems | Prerequisite: Add 360H5/STA220H5 Corequisite: Remove BIO361H5 and add BIO313H5 |
| BIO452H5 Advanced Topics in Cell Biology | Remove the words 'Lectures and' and replace with 'Student' |
| BIO475H5 Modern Approaches to Biotechnology | [26L, 13S] Course components changed due to new, enhanced laboratory course |
| CCT362H5 Communication for Health Promotion | RATIONALE: Revised to better reflect the goals of the new specialization NUMBER and NAME: HSC300H5 Health Communication DESCRIPTION: An introduction to the principles of communicating effective audience-specific health information in a variety of media, including electronic and print, and critical analysis of their content, form, and language. Students will learn the principles of clear, written health communications that serve the needs of lay and professional audiences, and apply these principles to various assignments, including the content of a website on a current health topic. |

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| CCT391H5 Introduction to Data and Information Visualization | <p>RATIONALE: Revised to better reflect the goals of the new specialization</p> <p>NUMBER: HSC301H5</p> <p>DESCRIPTION: An introduction to the basic principles of information design, including the clear, concise and truthful presentation of data in the form of tables, graphs, maps, academic posters, presentations, and user interfaces. Topics will include the accurate representation of numerical and statistical data, information hierarchy, and appropriate use of design elements for clarity and legibility. Practical application of course material will require students to develop and integrate information graphics into a presentation format for peer review and critique.</p> |
| CCT392H5 Introduction to Biocommunication Visualization | <p>RATIONALE: Revised to better reflect the goals of the new specialization.</p> <p>NUMBER: HSC302H5</p> <p>DESCRIPTION: Course covers analysis and development of visual media for medical or scientific topics. Lectures include: light/form; proportion/scale; scientific visual conventions; media appropriate for target audience and reproduction. Topics may include: physiology, anatomical/biological subjects, patient education/health promotion or archeological artifacts. Classes consist of lectures with computer lab explorations.</p> |
| CCT425H5 Visual Forensic Demonstrative Evidence | <p>RATIONALE: Revised to better reflect the goals of the new specialization</p> <p>NUMBER and NAME: HSC403H5 Visualization of Forensic Demonstrative Evidence</p> <p>DESCRIPTION: This course examines the visual representation of forensic demonstrative evidence in Canadian courtrooms. A case-based approach simulates professional practice. Forensic anthropology, biology and visual communication theory are explored in new media for presentation. Visual problem solving skills are developed through collaboration. In class, presentations and practica are combined with online critical analysis of visualizations.</p> |
| CHM422H5 NMR Spectroscopy | <p>RATIONALE: This permits Physics undergraduates to take this course.</p> <p>NUMBER: JCP422H5</p> <p>Exclusion: CHM441H1 is removed; CHM422H5 added</p> <p>Prerequisites changed to: CHM221H5/PHY241H5,245H5; MAT212H5/221H5/258Y5</p> <p>Recommended Preparation: JCP321H5</p> |

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| CSC340H5 Requirements Engineering | <p>RATIONALE: The new name and description are more representative of the way the course is taught. There are no changes to the prerequisites.</p> <p>DESCRIPTION: Theory, tools and techniques of problem analysis for software systems development, covering both information systems and control systems. Topics include: systems theory, requirements specification, analysis of feasibility and risk, object-oriented analysis, business process modeling, modelling and analysis of information structure, modelling and analysis of the behavior of reactive systems, analysis of non-functional requirements, verification and validation, requirements prioritization and software evolution.</p> |
| FSC239Y Forensic Science | <p>52L, 26T</p> <p>RATIONALE: The addition of a tutorial session is needed to approach the hours required for program accreditation and due to the large size of this class, incorporating a tutorial session would also enhance the student learning experience.</p> |
| FSC239Y Forensic Science | <p>Change course title to: Introduction to Forensic Science.</p> <p>RATIONALE: To better identify it as our “Introductory” course.</p> |
| FSC302H Advanced Forensic Identification | <p>Prerequisite: FSC300H</p> <p>Exclusion: FSC301H</p> <p>RATIONALE: Prerequisite: change due to renumbering of FSC301H to FSC300H. Exclusion: Students with the “old” FSC301H will lack the new component, which is needed in order to take FSC302H.</p> |
| FSC310H DNA Evidence in Forensic Science | <p>26L, 26P</p> <p>RATIONALE: Currently, there are 26 hours of lectures and 13 hours of laboratory. Expanding the laboratory hours to 26 will allow students a better opportunity to get familiar with many of the experimental approaches used in Forensic DNA analysis.</p> <p>This change would require an increase the number of TA hours from 140 to 180-200. Also, with a slight increase in the course budget, we could also incorporate laboratory techniques currently not covered in the course, such as mtDNA sequencing.</p> |
| FSC481Y Mentorship in Forensic Science | <p>Change course title to: Internship in Forensic Science.</p> <p>RATIONALE: “Internship” is better recognized by the outside professional community and it also provides consistency in terminology with similar courses offered within other programs at UTM.</p> |

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| <p>JBC472H5Y Seminars in Biotechnology (SCI)</p> | <p>RATIONALE: This course was implemented (though not yet offered) to fulfill the needs of undergraduate biotechnology students. This is a slight modification of the original course which was targeted only to Biotechnology undergraduates. We wish to expand the course by offering a second hour each week where students will give oral presentations and current scientific topics in biochemistry and biotechnology will be offered. The “new” target audience includes undergraduates in biotechnology first, graduate students in the MBiotech program, and undergraduates in chemistry, biological chemistry, and biology.</p> <p>NAME: Trends in Biotechnology and Biochemistry (SCI)</p> <p>DESCRIPTION: An introduction to current research in biochemistry and biotechnology, through seminars and literature reviews, presented by invited speakers and students. Subject areas include biotechnology, biomaterials, enzyme engineering, biosensors, drug delivery, spectrometry, separations chemistry, and bioinformatics. (42 contact hours over 2 semesters)</p> <p>PREREQUISITE: JBC371H5/CHM361H5/P.I.</p> |
| <p>MAT212H5 Differential equations and modeling (39L, 13T)</p> | <p>RATIONALE: Applications will be primarily to the biological and environmental sciences. As before, this course does not fulfill prerequisites for 300-level MAT courses.</p> <p>DESCRIPTION: Modeling with differential equations with applications to the life sciences. Exponential growth, the logistic equation, stability in one-dimensional equations, systems of first order equations, phase plane analysis, vectors and matrices, stability in nonlinear systems. (Does not fulfill prerequisites for 300-level MAT courses.)</p> <p>EXCLUSION: MAT242H5, MAT258Y5</p> <p>PREREQUISITE: MAT132Y5/134Y5/135Y5/138Y5</p> <p>FURTHER REMARKS: This course will not attempt to cover all of the material of a standard second year Differential Equations course. The emphasis is on modeling and applications. Some introduction to linear algebra (vectors and matrices) will also be included. We recommend the textbook "Modelling Differential Equations in Biology" by Clifford Henry Taubes. The course will not adequately prepare students for 300-level MAT courses requiring Differential Equations as a prerequisite. It should only be taken by students who wish to get some exposure to mathematical methods in life sciences, but do not wish to continue mathematical studies afterwards.</p> |

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| <p>MAT223H5 Linear Algebra I (39L, 13T)</p> | <p>RATIONALE: Description and prerequisites are being brought in line with St. George.</p> <p>DESCRIPTION: Matrix arithmetic and linear systems. R^n: subspaces, linear independence, bases, dimension, column spaces, null spaces, rank and dimension formula. Orthogonality, orthonormal sets, Gram-Schmidt orthogonalization process, least square approximation. Linear transformations from R^n to R^m. The determinant, classical adjoint, Cramer's rule. Eigenvalues, eigenvectors, eigenspaces, diagonalization. Function spaces and applications to a system of linear differential equations.</p> <p>Exclusion: MAT222H, 248Y</p> <p>Prerequisite: MCB4U, MGA4U/MAT102H</p> |
| <p>MAT224H5 Linear Algebra II (39L, 13T)</p> | <p>Abstract vector spaces: subspaces, dimension theory. Linear mappings: kernel, image, dimension theorem, isomorphisms, matrix of a linear transformation. Change of basis, invariant subspaces, direct sums, cyclic subspaces, Cayley-Hamilton theorem. Inner product spaces, orthogonal transformations, orthogonal diagonalization, quadratic forms, positive definite matrices. Complex operators: Hermitian, unitary, and normal. Spectral Theorem. Isometries of R^2 and R^3.</p> <p>Exclusion: MAT248Y</p> <p>Prerequisite: MAT102H5, MAT223H5</p> |
| <p>PSY252H5 Introduction to Animal Behaviour</p> | <p>RATIONALE: To ensure that course includes all necessary material to serve as a prerequisite for all 300 series neuroscience courses.</p> <p>DESCRIPTION: An introduction to animal behaviour from a biological perspective, stressing ecological and evolutionary aspects of behaviour. The course will review the neural, endocrine and physiological mechanisms mediating animals' natural behaviours, as well as how gene-environment interactions during development modify these behavioural mechanisms. [39L]</p> <p>Prerequisite: PSY100Y</p> |
| <p>PSY311H5 Social Development</p> | <p>RATIONALE: See above new course (PSY310H5). PSY311H5 is splitting into two – an infant and childhood course and a newly proposed Adolescent and Adulthood course. The new description for PSY311H5 reflects this change.</p> <p>DESCRIPTION: A survey of contemporary research and theory in social development during infancy and childhood with consideration of the cultural context of development. Topics include interactional development, attachment, understanding self and others, sex role development, parenting and socialization, and outcome of development. [39L]</p> <p>Prerequisites: PSY201H5/equivalent, 210H5/213H5</p> |

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| <p>PSY325H5 Psychology of the Self</p> | <p>RATIONALE: New description better reflects teaching interests of new faculty member. Course will slightly shift from a social to a developmental orientation.</p> <p>DESCRIPTION: An examination of theory and research on the self from the perspectives of personality, developmental, and social psychology. Examples of topics associated with self development that will be covered are relationships, motivations, psychological stages, individual differences, cognition, culture, autobiographical memory, and narrative perspectives on the self. [39L]</p> <p>Exclusion: PSY320H taken before 1999-2000</p> <p>Prerequisites: PSY201H5/equivalent, 210H5/220H5/230H5</p> |
| <p>PSY362H5 Animal Cognition</p> | <p>RATIONALE: New description better reflects teaching interests of new faculty member.</p> <p>DESCRIPTION: A comparative survey of cognitive processes in animals from an ecological and evolutionary perspective. The course will examine topics including perception, working and reference memory, simple associative and complex relational learning, and concept formation. [39L]</p> <p>Prerequisites: PSY201H5/equivalent, 252H5/290H5/295H5, 270H5</p> |
| <p>PSY393H5 Human Neuropsychology</p> | <p>RATIONALE: New title better reflects topic.</p> <p>DESCRIPTION: This course will review major topics in cognitive neuroscience, with an emphasis on human function. Sample topics include issues such as memory disorders and models of memory, split brain research, language and aphasia, attention, emotion, and executive functions. [39L]</p> <p>Prerequisites: PSY201H5/equivalent, 252H5/290H5/295H5, 270H5</p> |
| <p>PSY397H5 Neuroplasticity and Behaviour</p> | <p>RATIONALE: New description better reflects teaching interests of new faculty member.</p> <p>DESCRIPTION: An examination of experimental findings and theory documenting the plasticity of the brain and its relationship to behaviour. The course will discuss the molecular, synaptic, cellular and circuitry components of neural plasticity in relation to learning and experience. [39L]</p> <p>Prerequisites: PSY201H5/equivalent, 252H5/290H5/295H5</p> |

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| PSY400Y5 Thesis | <p>RATIONALE: New description provides important procedural information about taking the Thesis course.</p> <p>DESCRIPTION: Independent research supervised by individual faculty members. Seminars on general topics relevant to the conduct of independent research, student research proposals, and the presentation of findings. Admission by academic merit. Interested students in their fourth (or final) year must apply during the prior Winter term and should (a) obtain an application form from Room 2037B; (b) approach potential faculty supervisors and discuss the possibility of research project supervision contingent on acceptance into the course; and (c) submit the completed application form to the Thesis Coordinator by the end of the Winter term examination period. Final admission decisions will be made by the Coordinator and applicants notified after June 15. [78S, 78P]</p> <p>Prerequisites: PSY202H (or equivalent), laboratory course in psychology, satisfactory progress in the Psychology Specialist Program</p> |
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▪ **Other Changes:**

| Course No. and Name | Brief comment on the rationale for change |
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| BIO152H5 | <p>We have dropped the requirement for OAC A&G/OAC FM/OAC Physics) or (Geometry & Discrete Mathematics Gr. 12 (4U)/Mathematics of Data Management Gr. 12 (4U)/Physics Gr. 12 (4U) to be in line with Chemistry first year requirements.</p> <p>Change prerequisites from: OAC BIO/BIO Gr. 12 (4U); OAC CHM/CHM Gr. 12 (4U); OAC Calculus/Advanced Functions & Introductory Calculus Gr. 12 (4U); (OAC A&G/OAC FM/OAC Physics) or (Geometry & Discrete Mathematics Gr. 12 (4U)/ Mathematics of Data Management Gr. 12 (4U)/Physics Gr. 12 (4U))</p> <p>To: OAC BIO/BIO Gr. 12 (4U); OAC CHM/CHM Gr. 12 (4U); OAC Calculus/Advanced Functions & Introductory Calculus Gr. 12 (4U)</p> |
| BIO317H5 (previously ENV317H5) | <p>This is a Biology course. The ENV designation has resulted in many BIO students missing this course. It will still be included in the Environment Program.</p> |
| CCT373H5 Engineering Psychology: Human Factors and Cognitive Ergonomics | <p>This course will be added to list of approved 300 series courses required to complete PSY Major/Specialist Program in Cognition/Perception.</p> |
| CCT392H5 Introduction to Biocommunication Visualization | <p>New prerequisites to better reflect preparation for the course BIO153H5 or BIO210H5 or any ANT200-level course or PI</p> |
| CCT425H5 Visual Forensic Demonstrative Evidence | <p>Reduction in prerequisite courses ANT205H5 or PI</p> |

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| CHM140Y5 The Study of Matter and Its Transformations (SCI) | <p>We have dropped the requirement for (Grade 12 Geometry & Discrete Mathematics (MGA4U)/Grade 12 (4U) Physics) to be in line with St. George.</p> <p>1. Change Prerequisites to: (OAC Chemistry/Grade 12 Chemistry (SCH4U); OAC Calculus & OAC A&G/Grade 12 Advanced Functions & Introductory Calculus (MCB4U))</p> <p>2. Change Strongly Recommended Corequisite to: MAT132Y5/134Y5/135Y5/138Y5</p> |
| CSC209H5 Software Tools and Systems Programming | <p>1. Change the Exclusions to be: CSC 369H5 RATIONALE: Error in current listing.</p> <p>2. Delete CSC 258H5 from the Prerequisites rationale for the change: 258 is not needed for the way that 209 is taught.</p> |
| CSC258H5 Computer Organization | <p>Change the meetings to be: 26L, 13T, 6P RATIONALE: That is the way the course has been taught, for several years.</p> |
| CSC369H5 Operating Systems | <p>Delete CSC207H5/270H5 from the prerequisites. RATIONALE: 207 is a prerequisite for 209 and 258, so putting it in the list is overkill.</p> |
| PHY135Y5 Introductory Physics (SCI) | <p>We have dropped the requirement for (Grade 12(4U) Chemistry/Grade 12(4U) Geometry & Discrete Mathematics/P.I.) to be in line with St. George.</p> <p>1. Change Prerequisites to: (OAC Physics/Grade 12(4U) Physics/P.I.; OAC Calc/Grade 12(4U) Advanced Functions & Introductory Calculus)</p> <p>2. Change Corequisite to: MAT132Y5/134Y5/135Y5/138Y5</p> |
| PHY206H5 (1) The Physics of Everyday Phenomena (SCI) | <p>PHY106H5 has not been offered in a number of years and it is time to remove it. (PHY105H5 and PHY106H5 were last listed in the 1997-1998 Calendar)</p> <p>Remove 'PHY106H5' from the Exclusions for PHY206H5.</p> |
| PSY310H5 Adolescence and Emerging Adulthood; PSY328H5 Psychology and Law | <p>These courses will be added to list of approved 300 series courses required to complete PSY Major/Specialist Program in Social/Developmental/Personality.</p> |
| PSY353H5 Developmental Psychobiology of Social Behaviour | <p>This course will be added to list of approved 300 series courses required to complete PSY Major/Specialist Program in Social/Developmental/Personality or Neuroscience.</p> |
| PSY354H5 The Biopsychology of Sex; PSY355H5 Introduction to Animal Behaviour Genetics | <p>These courses will be added to list of approved 300 series courses required to complete PSY Major/Specialist Program in Neuroscience</p> |
| PSY371H5 Higher Cognitive Processes | <p>This course will be added to list of approved 300 series courses required to complete PSY Major/Specialist Program in Cognition/Perception.</p> |