

FOR APPROVAL

PUBLIC

OPEN SESSION

TO: UTM Academic Affairs Committee

SPONSOR: Professor Amrita Daniere, Interim Vice-Principal Academic & Dean
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DATE: September 2, 2022 for September 12, 2022

AGENDA ITEM: 3

ITEM IDENTIFICATION:

Minor Modification: Undergraduate Curriculum Changes: Humanities, Sciences and Social Sciences, UTM

JURISDICTIONAL INFORMATION:

Under section 5.6 of its terms of reference, the Academic Affairs Committee is responsible for major and minor modifications to existing degree programs.

GOVERNANCE PATH:

- UTM Academic Affairs Committee [for approval] (September 12, 2022)

PREVIOUS ACTION TAKEN:

Minor undergraduate curriculum changes in the Humanities, Sciences and Social Sciences for the 2023-24 academic year were approved by the Academic Affairs Committee in May of 2022.

HIGHLIGHTS:

The Curriculum Reports are comprised of Minor Modifications to existing undergraduate programs. These curricular changes are intended to have significant positive effects on a cumulative basis, but are considered to be minor changes in the context of the UTQAP. It is important to note that the changes brought forward at these meetings will come into effect during the 2023-2024 Academic Year.

The enclosed reports represent the proposed changes from the May 2022 meetings of the Decanal Divisional Undergraduate Curriculum Committees for Humanities, Social Sciences, and Sciences. These curriculum committees consist of the Chairs, Associate Chairs, or Chair's designates of each UTM Department and Institute. Each of the attached curriculum reports are organized by academic unit and then sub-divided based on the type of change(s) being proposed.

Resource implications for all proposed changes were reviewed by the Resource Implications Committee within the Office of the Dean. These curriculum reports reflect all approved resource requests. Where required, library resources have been discussed and approved by the Hazel McCallion Academic Learning Centre (HMALC).

The Humanities Divisional Undergraduate Curriculum Committee report summarizes changes made to 3 programs and 21 courses. Of these course changes, academic units in the Humanities are looking forward to introducing 8 new courses in 2023-2024 along with 2 course modifications and 2 course retirements.

Changes proposed in the Sciences Divisional Undergraduate Curriculum Committee and reflected in the corresponding report include 22 program changes along with 29 course changes, of which 1 is a new course and the other 28 are modifications to existing courses.

In the Social Sciences, 7 program changes were proposed along with 52 course changes (19 new courses; 15 course modifications; and 18 course retirements). The 19 new course proposals are exclusively from Political Science as part of their unit-wide curriculum renewal project that is seeing a number of full year (Y) courses being retired in favour of new half-credit (H) courses. In line with this, 11 of the course retirements in the Social Sciences are from Political Science as well.

Across the Humanities, Sciences, and Social Sciences, the Institute for the Study of University Pedagogy (ISUP) has proposed three (3) new special topics courses – one each at the 200-, 300-, and 400-level. These courses will focus on pedagogical activities and allow the ISUP faculty to test out new course ideas before they are proposed as permanent courses.

RECOMMENDATION:

Be It Resolved,

THAT the proposed Humanities, Sciences and Social Sciences undergraduate curriculum change at UTM, as detailed in the respective curriculum reports, be approved, effective September 1, 2023.

DOCUMENTATION PROVIDED:

- Humanities Curriculum Report
- Sciences Curriculum Report
- Social Sciences Curriculum Report



UNIVERSITY OF
TORONTO

University of Toronto Mississauga

HUM Curriculum Proposals Report

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English and Drama (UTM), Department of

1 New Course:

ENG103H5: Literature and Medicine

Contact Hours:

Lecture: 24 / Tutorial: 12

Description: It has never been more essential to learn from the history of disease: how we have perceived it and how we have written it. This course introduces students to the important narratives about health, epidemics, and medicine from both non-Western and Western traditions and provides conceptual foundations for ethical thinking about justice, health, and disability in both science and the arts. The survey will cover prose narrative, film, media, non-fiction, and poetry, and will encourage students to think between the past and the present in their analyses and creative projects. Lectures and discussions will emphasize the interlocking relationships between medicine, language, race, empire, and power.

Prerequisites:

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ENG103H5 This introductory level Literature and Medicine course will complement our current offerings that bridge literature, science and technology studies, offering an overview of the relationship between literature and medicine across times and geographies. Students in STEM fields as well as the literary arts will find opportunities to read, analyze, and write about issues of pressing concern around public health. We anticipate a high enrolment in this course due to the subject matter's cross-over appeal.

Consultation:

Consultation undertaken with English and Drama Curriculum Committee and the Department of English and Drama.

Resources:

Resource form submitted to Dean's Office.

2 Course Modifications:

DRE226H5: Shakespeare in the Theatre

Contact Hours:

Previous: *Lecture: 36 / Practical: 12*

New: *Lecture: 24 / Practical: 24*

Rationale:

The division of contact hours did not reflect how DRE226 Shakespeare in The Theatre had been conducted in the past. This course consists of a one-hour lecture once a week and a two-hour practicum twice a week. This amendment was made in consultation with the Dean's Office.

Consultation:

Resources:

Correction of calendar entry of course to reflect actual practice; therefore, no change in resourcing.

ENG346H5: Indigenous First Stories Tkaronto

Title: Indigenous First ~~Story Toronto~~ ~~Stories Tkaronto~~

Abbreviated Title: Indig. First ~~Story Toronto~~ ~~Stories Tkaronto~~

Rationale:

We are changing the title from "Tkaronto" to "Toronto" to increase student recognition and thus enrolment, as some students may not be familiar with the term "Tkaronto." "Tkaronto" is acknowledged in the course description. We are also changing "Stories" to "Story" because there was an error in the initial title submission: the title was meant to be "Story" so that it would resonate with the title of the "First Story Toronto" archive, as mentioned in the course description.

Resources:

None

2 Retired Courses:

DRE350H5: Film Genres in Performance

Rationale:

DRE 350H5 Film Genres in Performance was devised by a former retired faculty member and was last taught in Fall 2010. This course no longer fits the Department's pedagogical needs.

ENG324Y5: Victorian Fiction

Rationale:

ENG 324Y5 Victorian Fiction (Y course) no longer fits our Department's pedagogical needs. Much of the course content is being covered in ENG325H5 Victorian Novel.

3 Minor Program Modifications:

Canadian Studies - Major (Arts)

Completion Requirements:

7.0 credits are required, fulfilling the following requirements:

1. HIS262H5 ~~or HIS263Y5~~
2. (POL215H5 and POL216H5) or POL214Y5
3. 1.0 ENG credits from ENG215H5 or ENG252Y5 or ENG255H5 or ENG274H5 or ENG352H5 or ENG353Y5 or ENG354Y5 ~~or ENG357H5~~ or ENG361H5 or ENG362H5 or ENG392H5 or ENG393H5;
4. GGR202H5; and
5. 4.0 additional credits (at least 2.0 of which must be at the 300/400 level) from the following course list that have not already been applied towards the requirements for the Major Program in Canadian Studies. ANT241H5 or CIN205H5 or DRE200H5 or DRE305H5 or DRE405H5 or ECO323Y5 or ENG271H5 or ENG357H5 or ENG358H5 or ENG424H5 or ENG425H5 ~~or FAH275H5~~ or FAH292H5 or FRE312H5 or FRE316H5 ~~or FRE342H5~~ or FRE417H5 or ~~JFL454H5~~ ~~FRE454H5~~ or GGR348H5 or GGR384H5 or GGR415H5 or HIS261H5 ~~or HIS263Y5 or HIS311H5 or HIS312H5 or HIS313H5 or HIS314H5~~ or HIS315H5 or HIS318H5 or HIS319H5 ~~or HIS326Y5~~ or HIS342H5 or HIS358H5 or HIS367H5 ~~or HIS368H5~~ or HIS369H5 or HIS402H5 ~~or HIS416H5 or HIS452H5 or HIS461H5~~ or HIS462H5 ~~or HIS487H5~~ or ITA255Y5 or JPE251H5 or JPE252H5 or LIN454H5 or MGT423H5 or MGT429H5 or POL111H5 or POL316Y5 or POL336Y5 or POL353Y5 or POL490H5 or POL494Y5 ~~or SOC210H5~~ or SOC301H5 or SOC302H5 or SOC332H5 ~~or SOC339H5~~ or SOC415H5 or WGS210H5 or WGS215H5 or WGS335H5 or WGS343H5 or WGS347H5.

Rationale:

The Canadian Studies program requires core courses in HIS, POL, ENG, and GGR. We aim to keep the requirements as flexible as possible while still ensuring that the core course requirements provide a good foundation for understanding and interpreting Canada. ENG357H5 New Writing in Canada provides foundational coverage of recent writing in Canada and is a satisfactory alternative to the other ENG courses already listed.

The Canadian Studies program aims to be as inclusive as possible when determining which courses to list as additional credit options given the multidisciplinary nature of the program and the fact our students wish to combine a Canadian Studies degree with numerous other Majors and Minors. We list any course at UTM that focuses clearly and primarily on some aspect of Canada. SOC210H5 Canadian Criminal Justice and SOC339H5 The Indian Act: Canadian Law, Sovereignty and Indigenous Womxn are clearly Canadian in content and therefore very relevant to our program. Note: SOC has granted permission to list SOC210H5 or SOC339H5.

We removed HIS263Y5 The History of Canada because Historical Studies has informed us that this course is no longer offered. Historical Studies has informed us that (HIS311H5, HIS312H5, HIS313H5, HIS314H5, HIS326Y5, HIS368H5, HIS416H5, HIS452H5, HIS461H5, HIS487H5) are no longer offered. We can continue to approve them on a case by case basis for any students who have taken them in the past and wish to apply them to a Canadian Studies Major or Minor.

The Canadian Studies program aims to be as inclusive as possible when determining which courses to list as additional credit options given the multidisciplinary nature of the program and the fact our students wish to combine a Canadian Studies degree with numerous other Majors and Minors. We list any course at UTM that focuses clearly and primarily on some aspect of Canada. FRE342H5 History of Quebec and French Canada is clearly relevant to our program. Note: FRE has granted permission to list FRE342H5.

Resource Implications:

None

Canadian Studies - Minor (Arts)

Completion Requirements:

4.0 credits are required, fulfilling the following requirements:

1. 2.0 credits in at least two different subject areas from the following list: DRE305H5 or ENG215H5 or ENG252Y5 or ENG255H5 or ENG274H5 or ENG352H5 or ENG353Y5 or ENG354Y5 or ENG357H5 or ENG361H5 or ENG362H5 or ENG392H5 or ENG393H5 or FAH275H5 or FRE342H5 or GGR202H5 or HIS261H5 or ~~(HIS262H5 or HIS342H5 HIS263Y5)~~ or HIS358H5 or ~~{POL214Y5 or {POL215H5 or POL216H5 or SOC210H5 or SOC339H5}}~~.
2. 2.0 additional credits (at least 1.0 of which must be at the 300/400 level) from courses listed above that have not already been applied towards the requirements for the Minor Program in Canadian Studies or approved by the program advisor.

Rationale:

Historical Studies has informed us that HIS263Y5 is no longer offered.

The Canadian Studies program aims to be as inclusive as possible when determining which courses to list as additional credit options given the multidisciplinary nature of the program and the fact our students wish to combine a Canadian Studies degree with numerous other Majors and Minors. We list any course at UTM that focuses clearly and primarily on some aspect of Canada. DRE305H5 (Studies in Indigenous Performance) is clearly relevant to our program given its focus on an aspect of the culture of Canada's Indigenous peoples. Canadian Studies, in order to be reflective of contemporary Canada, is very eager to ensure that the program is regularly updated to include new courses on Indigenous topics as they become available.

The Canadian Studies program requires core courses in HIS, POL, ENG, and GGR. We aim to keep the requirements as flexible as possible while still ensuring that the core course requirements provide a good foundation for understanding and interpreting Canada from these essential disciplinary perspectives. ENG357 provides broad and foundational coverage of recent writing in Canada and is a satisfactory alternative to the other ENG courses already listed.

The Canadian Studies program aims to be as inclusive as possible when determining which courses to list as additional credit options given the multidisciplinary nature of the program and the fact our students wish to combine a Canadian Studies degree with numerous other Majors and Minors. We list any course at UTM that focuses clearly and primarily on some aspect of Canada. FRE342H5 (History of Quebec and French Canada) is clearly relevant to our program.

(Note: FRE has granted permission to list FRE342H5.) These two courses in Sociology SOC210H5 and SOC339H5 are clearly Canadian in content and therefore very relevant to our program.
Note: SOC has granted permission to list SOC210H5 and SOC339H5.

Resource Implications:

None

Theatre and Drama Studies - Specialist (Arts)

Description:

The study of Theatre, Drama and Performance examines the relationship between the artists who create written texts intended for production, the artists who turn scripts into performances, and the audiences who experience the resulting theatrical event. It is the study of the event itself and the acts of creation involved in producing that event. Theatre, Drama and Performance involves the study of plays, actors, directors, theatres, designers, and audiences from the classical stage to contemporary plays and performances from around the world.

The focus of Theatre, Drama and Performance Studies at U of T Mississauga, both curricular and extra-curricular, is the Erindale Studio Theatre and the Multi-Media Studio Theatre in the CCT Building (or MiST). The Erindale Studio Theatre is used for performances of Theatre Erindale, the production company of the Specialist Program, and for performances of the English and Drama Student Society (EDSS). MiST is used for teaching and co-curricular and extra-curricular performances by all programs. We also have several rehearsal halls in Deerfield Hall that are used for classes, performances, and other program activities.

Courses in related topics are given in many disciplines. A list of these courses is given in the general notes for All Programs below and students interested in the field are advised to consider taking some of them.

No more than 1.5 credits can be double counted towards two programs of study in English, Drama, or Creative Writing.

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The Specialist Honours Program in Theatre & Drama Studies, offered jointly with Sheridan College **Institute**, involves the study of plays, actors, theatres, designers and audiences from the classical **Greek** stage to **contemporary plays and performances from around the world most modern experimental performance**. We give students the opportunity to earn a two-year (equivalent) conservatory diploma in professional actor training from Sheridan within a Specialist degree in performance history and theory and dramatic literature from U of T Mississauga. This high-powered combined program prepares students for a career on the stage or behind the scenes in **the** professional theatre world, or for drama teaching at the high school or university level.

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited to students who **have completed 4.0 credits with a minimum CGPA of 2.0 and** are successful in an audition, conducted in the spring of each year. For audition requirements, please see the website

www.utm.utoronto.ca/reg/audition . Enrolment in all studio courses(DRS)is restricted to students in the Specialist Program. Students applying to proceed to the second year of the Theatre and Drama Studies program must have completed 4.0 credits with a minimum CGPA of 2.0.

TDS students must enroll in the Specialist Subject POST at the end of the first year. Check your email and ACORN for further information about your Subject POST or contact your undergraduate advisor.

Completion Requirements:

12.0 credits are required.

First Year:

1. DRE121H5 or ENG121H5
2. DRS121H5 and DRS122H5
3. DRE122H5 or ENG122H5

Second Year Higher Years:

1. DRE200H5 and DRE222H5
2. DRS221H5 and DRS222H5

Third & Fourth Year:

1. DRS321H5 and DRS322H5
2. ~~and~~ DRS325H5 and DRS326H5
3. DRS421H5 and DRS422H5
4. ~~and~~ DRS425H5 and DRS426H5
5. 1.5 ~~credits of~~ DRE ~~credit~~ at the 300/400-level
6. 0.5 ~~credit of~~ DRE ~~credit~~ at the 400-level
7. 2.0 ~~additional~~ credits of drama-related ~~courses, which can include DRE~~ courses (see ~~not otherwise counted toward other program requirements. See~~ course list below)-

NOTES:

1. ~~DRE226H5 is recommended.~~
2. Additional DRE courses and the following drama-related courses can be used to fulfill the requirements for any Theatre, Drama and Performance Studies program: CIN206H5 ~~CIN202H5~~ or CIN207H5 ~~CIN301H5~~ or CIN208H5 ~~CIN 302H5~~ or CIN215H5 or CIN308H5 or CIN403H5 ~~CIN303H5~~ or CLA300H5 or DRE226H5 or ENG218H5 or ENG261H5 or ENG263H5 or ENG317H5 ~~ENG220Y5~~ or ENG330H5 or ENG331H5 ~~ENG 331H5~~ or ENG335H5 or ENG336H5 or ENG337H5 or ENG340H5 or ENG341H5 or ENG342H5 or ENG343H5 ~~ENG 342H5~~ or ENG352H5 or ~~(ENG424H5~~ or ENG425H5 or ENG426H5 or ENG434H5 (when drama related)) or ~~(ENG434H5~~ or ENG435H5 or ENG436H5 (when drama related)) or ~~(ENG460H5~~ or ENG461H5 or ENG462H5 or ENG463H5 ~~(when drama related))~~ or ~~(ENG470H5~~ or ENG471H5 or ENG472H5 or ENG473H5 (when drama related)) or FAH475H5 or FRE315Y5 ~~FRE317H5~~ or FRE393H5 or FRE397H5 or FRE417H5 ~~FRE 397H5~~ or GER353H5 or GER355H5 or ITA242H5 or ~~ITA243H5~~ or ITA246H5 ~~ITA 246H5~~ or ITA247H5 or ITA307H5 or ITA309H5 or ITA311H5 or ITA313H5 or ITA315Y5 or ITA342H5 or ITA343H5 or ITA413Y5 ~~ITA 413Y5~~ or ITA490Y5 or ITA495Y5 or VCC427H5. Many of these courses have departmental prerequisites. You should consult the academic calendar before enrolling or

contact the Undergraduate Advisor for assistance ~~pre-requisites and co-requisites that all students must fulfill in order to be eligible to enroll.~~

3. ENG100H5 does not count toward the TDS ~~Students enrolled in Specialist~~ program.

4. DRE201H5 is not intended for Specialists and does not count towards program requirements.

5. "Taking a year off" from this program is possible, if difficult, after the first and second year, problematic and nearly impossible after the third year. Returning at any point requires consultation with the Director of ~~Major programs in Drama~~ Studies at UTM and the Program Coordinator at Sheridan College and also depends on the availability ~~who have completed 2.0 credits~~ of space ~~DRE may enrol in~~ the class you wish to join ~~ENG330H5 or ENG331H5 ENG335H5 or ENG336H5 or ENG340H5 or ENG 341H5 or ENG342H5~~. Likewise, students considering time away should also consult the Director of Drama Studies at UTM and the Program Coordinator at Sheridan College.

Rationale:

Under the Enrolment Requirements we included language to denote that "DRS" courses are restricted to students in the TDS Specialist Program. We also included the additional note of potential students applying to the program must have 4.0 credits and a minimum CGPA of 2.0. Further to the note the Department does recognize that students may need to take time away from their program during the years. We have revised and clarified the language so that students "taking a year off" does not mean they cannot come back into the program or that students would need to "re-audition" for their spot. This is merely a note for students to recognize some of the parameters in returning back into their program.

Curricular Exception: Due to an oversight when amending our courses on CM in which we neglected to include DRE122H5 Modern and Contemporary Theatre and Drama as listed program requirement credit under "First Year." We are now requesting that the following 0.5 credit be added to the academic calendar.

The term "Higher Years" was amended to "Second Year" to include the same language as the current years listed in the program requirements.

For clarity and to reduce confusion DRE226H5 Shakespeare in the Theatre which was originally listed as DRE226H5 (recommend) under note #1 and been incorporated into the list of additional DRE courses and drama-related courses which can be used to fulfill the requirements for any Theatre, Drama and Performance Studies program

Theatre and Drama Studies Specialist aims to be as inclusive as possible when determining which courses to list as additional credit options given the multidisciplinary nature of the program. We list courses at UTM that that have a drama-related pedagogical focus. Visual Culture and Communication has granted us permission to list CIN206H5 Auteurs and VCC427H5 Participatory Media.

For clarity and to reduce confusion note #2 "Students enrolled in Specialist and Major programs in Drama who have completed 2.0 DRE credits may enrol in ENG317H5 or ENG330H5 or ENG331H5 or ENG335H5 or ENG336H5 or ENG340H5 or ENG341H5 or ENG342H5 or ENG343H5, was deemed redundant as the following courses listed were also listed in note #1 and

subsequently note #3 "DRE201H5 is not intended for Specialists and does not count towards program requirements" was moved up to replace the removed note.

Resource Implications:

None.

Historical Studies (UTM), Department of

4 New Courses:

HIS305H5: 1898: Empires and Conflict in Global History

Contact Hours:

Lecture: 24

Description: The Klondike Gold Rush, imperial conflict in North Africa, and the Spanish American War: 1898 is a pivotal year in global history. This course investigates the circuits of empire, capitalism, and environmental extraction in a rapidly industrializing and increasingly interconnected world.

Prerequisites:

Corequisites:

Exclusions:

Recommended Preparation: HIS101H5 or HIS102H5 or HIS103H5 or HIS104H5 or HIS105H5 or HIS106H5 or HIS107H5 or HIS108H5.

Rationale:

The program currently has a limited number of course offerings in global history, and this course helps fill a curriculum gap. This course is the product of extensive research conducted by the proposed instructor on empires and extraction at the turn of the century.

Resources:

Resource implications form submitted to the Dean's Office.

HIS324H5: Settler Colonialism, Violence, and Revolution: The Mau Mau Rebellion in Kenya

Contact Hours:

Lecture: 24

Description: This course examines colonial violence and revolution through the case of the Mau Mau Rebellion in Kenya. Through an examination of primary sources and historical arguments, this course explores settler colonialism; local moral economies and land; gender and generational conflict; propaganda and revolutionary thought; and decolonization, memory, and contemporary legacies of Mau Mau.

Prerequisites:

Corequisites:

Exclusions: HIS395H5 (Fall 2021)

Recommended Preparation:

Rationale:

The Mau Mau Rebellion, an event that shocked the world postwar, reshaped British imperial policies in the waning years of colonialism, sparked intense debates over violence and decolonization, and acted as a flashpoint for the consequences, reparations, and legacies of settler colonialism. This is the only course offered on this topic in the Historical Studies department.

Resources:

Resource implications form submitted to the Dean's Office.

HIS341H5: England in the Age of Reformation and Revolution

Contact Hours:

Lecture: 24

Description: Tudor and Stuart England (1485-1714) is a transformative period in English history. From the reign of Henry VIII, the Reformation, and the Scientific Revolution, to the execution of Charles I and the Glorious Revolution, this course charts out England's dramatic development from peripheral backwater to emerging world superpower.

Prerequisites:

Corequisites:

Exclusions: HIS395H5 (Fall 2019)

Recommended Preparation: HIS101H5 or HIS102H5 or HIS103H5 or HIS104H5 or HIS105H5 or HIS106H5 or HIS107H5 or HIS108H5.

Rationale:

The history program currently does not have a course that centers on early modern English history, and this course closes this curriculum gap.

Resources:

Resource implications form submitted to the Dean's Office.

RLG402H5: Religion and Stories

Contact Hours:

Seminar: 24

Description: Stories are central to sacred texts and to creating meaning generally. This course examines different types of stories using approaches from the study of religion. Stories may come from religious traditions or anywhere else, and may involve various media such as books, films, video games, popular music, graphic novels, podcasts, etc.

Prerequisites: RLG101H5 and 1.5 RLG credits.

Corequisites:

Exclusions: RLG401H5 (Winter 2020 and Fall 2020 and Fall 2021)

Recommended Preparation:

Rationale:

Narrative is a crucial part of every religious tradition, as well as pretty much every way in which we as human beings try to understand ourselves and our world. As Métis scholar Jo-Ann Episkenew says in *Taking Back Our Spirits*, "We are our stories." This course gives students the freedom to pick any story at all, from any religious tradition or beyond, and think about it in relation to specific ideas from the academic study of religion. The course is therefore inherently comparative, as students learn from their own research and from one another. Currently we have few courses focused specifically on stories, and none of these are comparative.

Resources:

Resource implications form submitted to the Dean's Office.

Study of University Pedagogy (UTM), Institute for the

3 New Courses:

ISP251H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Resources:

Resource implications form submitted to the Dean's Office.

ISP351H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type

(L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Resources:

Resource implications form submitted to the Dean's Office.

ISP451H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical

activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Resources:

Resource implications form submitted to the Dean's Office.



UNIVERSITY OF TORONTO

University of Toronto Mississauga

SCI Curriculum Proposals Report

Anthropology (UTM), Department of _____ **4**

1 Course Modification: _____ **4**

ANT441H5: Advanced Bioarchaeology _____ 4

2 Minor Program Modifications: _____ **5**

Anthropology - Major (Science) _____ 5

Anthropology - Specialist (Science) _____ 5

Biology (UTM), Department of _____ **7**

5 Course Modifications: _____ **7**

BIO206H5: Introductory Cell and Molecular Biology _____ 7

BIO326H5: Ornithology _____ 7

BIO331H5: Ecology of Communities _____ 7

BIO407H5: Behaviour Genetics _____ 8

BIO411H5: Topics in Molecular and Cellular Physiology _____ 8

9 Program Modifications: _____ **9**

Biology - Major (Science) _____ 9

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Anthropology (UTM), Department of

1 Course Modification:

ANT441H5: Advanced Bioarchaeology

Contact Hours:

Previous: *Lecture: 24 / Practical: 24*

New: *Lecture: 12 / Practical: 36*

Rationale:

We are revising the contact hours from [24L, 24P] to [12L, 36P]. In essence, this means that we are simply shifting the type of contact hours from a 2hr practical to a 3hr practical and correspondingly changing the lecture from a 2hr lecture to a 1hr lecture. Having contact hours of [12L, 36P] is more accurate and it better reflects what the students are actually doing and learning most of the time. As per the course description, this lab-based course is highly experiential and in fact been approved for the Experiential Learning Bursaries Program. The practicals will follow immediately after the lecture in the same undergraduate teaching labs. There will be TA Resource implications (form submitted) but no additional space requirements.

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resources:

None.

2 Minor Program Modifications:

Anthropology - Major (Science)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is limited. To qualify, students must have completed 4.0 credits and achieved a **minimum grade GPA of 63% at least 2.0** in **each of** ANT101H5 and ANT102H5 and ISP100H5. Students applying to enrol after second year must have completed 8.0 credits(including ANT101H5 and ANT102H5 and ISP100H5), and achieved a **minimum average GPA of 63% at least 2.0** in **all** ANT courses **(including JAL and HSC courses) as well as** ISP100H5.

Rationale:

Students are confused and unclear about what is meant by GPA so we replaced it with a percentage %. We removed the text about JAL and HSC courses since many do not have these courses before they request enrollment into our Major/Specialist programs. In fact, we need to remove any references to HSC courses since in last fall's curriculum meeting the department of biology mentioned that they give priority to their bio students and there is normally a long waiting list. The section where it states: "...GPA of at least 2.0 in all ANT courses..." is especially confusing because student think they need to have a GPA (i.e. 62% or higher) in every ANT course they took and not the "average" of the ANT courses that they took.

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resource Implications:

None.

Anthropology - Specialist (Science)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is limited. To qualify, students must have completed 4.0 credits and achieved a **minimum grade GPA of 63% at least 2.0** in **each of** ANT101H5 and ANT102H5 and ISP100H5. Students applying to enrol after second year must have completed 8.0 credits(including ANT101H5 and ANT102H5 and ISP100H5), and achieved a **minimum average GPA of 63% at least 2.0** in **all** ANT courses **(including JAL and HSC courses) as well as** ISP100H5.

Rationale:

Students are confused and unclear about what is meant by GPA so we replaced it with a percentage %. We removed the text about JAL and HSC courses since many do not have these courses before they request enrollment into our Major/Specialist programs. In fact, we need to remove any references to HSC courses since in last fall's curriculum meeting the dept of biology mentioned that they give priority to their bio students and there is normally a long waiting list.

The section where it states: "... GPA of at least 2.0 in all ANT courses ..." is especially confusing because students think they need to have a GPA (i.e. 62% or higher) in every ANT course they took and not the "average" of the ANT courses that they took.

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resource Implications:

None.

Biology (UTM), Department of

5 Course Modifications:

BIO206H5: Introductory Cell and Molecular Biology

Contact Hours:

Previous: Lecture: 36 / Practical: 15 / Tutorial: 5

New: Lecture: 36 / Practical: 18 / Tutorial: 6

Rationale:

The change in PRA and TUT hours are being changed so that the calendar matches what is being taught in the classroom. The PRA hours have been 18 hours for years since labs were introduced into BIO206. The TUT sections need to be 6 hours in length mainly due to the fact that the start of classes is usually mid-week at beginning of fall term students on Tues and Wed Lab/tut start their sessions before the first introductory lecture.

Resources:

None. Resources have been allocated for years as 18 PRA hours.

BIO326H5: Ornithology

Contact Hours:

Previous: Lecture: 24 / Practical: 30

New: Lecture: 24 / Practical: 36

Rationale:

Calendar PRA hours are not reflecting the actual teaching hours in the labs. Instructor has been teaching this course with 36 PRA hours for a few years since she started to introduce data analysis components to the labs. To reflect the time that students spend in the labs, she would like to change the PRA hours from 30 - 36 hours. LEC hours will remain the same at 24 LEC.

Resources:

None. Course has been taught for years as 36 PRA hours so no extra resources needed.

BIO331H5: Ecology of Communities

Contact Hours:

Previous: Lecture: 24 / Tutorial: 12

New: Lecture: 24 / Practical: 12

Prerequisites: BIO205H5 and (BIO259H5 BIO360H5 or BIO360H5 STA215H5)

Rationale:

The instructor has been teaching the TUT section of this course in a PC lab for several years. The Scheduling Office has suggested that we change the TUT to a PRA in order that we have scheduling priority access to the PC labs as well so that the course is recorded correctly as needing a lab section.

Resources:

None

BIO407H5: Behaviour Genetics

Contact Hours:

Previous: Lecture: 24

New: Seminar: 36

Prerequisites: BIO207H5 and BIO318Y5 ~~BIO318Y5Y~~ and (BIO259H5 or BIO360H5 or STA215H5) * STA215H5 will no longer be accepted as an appropriate prerequisite course AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 or BIO360H5 as the statistics prerequisite course.

Rationale:

This is a seminar style course (24 student cap) that involves a fair amount of group discussions and presentations. The instructor is finding that with only 24 LEC hours, it does not leave enough time to get through presentations in a timely manner. The instructor would like to extend the lecture hours of the course to accommodate the group discussion and presentations.

Resources:

None

BIO411H5: Topics in Molecular and Cellular Physiology

Contact Hours:

Previous: Seminar: 36

New: Seminar: 48

Rationale:

This is a seminar style course with a cap of 24 students. This course has several group discussions and weekly presentations (up to 60 presentations throughout the term). In order to accommodate 60 presentations per term the instructor needs to have four hours every week, therefore the teaching hours should be 48S. The instructor has been teaching the course this way for a few years now so this change is to have the hours reflected correctly in the calendar.

Resources:

None

9 Program Modifications:

Biology - Major (Science)

Completion Requirements:

8.0 credits are required including at least 2.0 at the 300/400 level.

1. BIO152H5, BIO153H5; CHM110H5, CHM120H5; (MAT132H5 and~~7~~ MAT134H5 *) or~~7~~ MAT134Y5 or ~~*/~~(MAT135H5 and~~7~~ MAT136H5) or~~7~~ MAT135Y5 or (MAT137H5 and MAT139H5) or~~7~~ MAT137Y5 * Note ~~÷~~ (MAT132H5 and~~7~~ MAT134H5) - for Life Sciences is highly recommended.

2. BIO202H5, BIO203H5, BIO205H5, BIO206H5, BIO207H5 ;** BIO259H5 or PSY201H5 or STA215H5

** PSY201H5 or STA215H5 will no longer be accepted as an appropriate courses for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program. Students who plan to take BIO360H5 or who plan to transfer to a Biology Specialist program should enrol in BIO259H5.

3. 2.0 in UTM Biology courses at the 300 or 400 level.

NOTES:

- Students should be aware of the distinct credit requirement for their degree (see section 8.6 - HBS degree Requirements for full details). Completion of this program with another Biology Major or Biology Minor will not satisfy the min. 12.0 distinct credit requirement for a degree. Please choose programs and courses accordingly.
- PSL201Y1, offered on the St. George campus, will not meet the Physiology requirements for the Biology Major program and cannot be used for this program.
- Students may take no more than 2.0 credits combined in ROP, Internship Program, or Individual Project/Thesis courses at the 300/400-level for credit toward their Biology program.
- Students must consult with the Undergraduate Advisor before enrolling in any St. George course that they wish to use for credit toward any Biology program.

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5).

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y as course option.

Resource Implications:

None

Biology - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited to students who have completed 4.0 credits, including **1.0 full credit in Biology with** 60% or better **in both BIO152H5 and BIO153H5**, and who have achieved a cumulative GPA of at least 2.5.

Students who have not attained the standard required to enter the Specialist Program may enrol in the Major or Minor Programs. If their GPA rises to 2.5, and they have completed CHM110H5, CHM120H5, BIO152H5, BIO153H5, BIO202H5, BIO203H5, BIO205H5, BIO206H5, and BIO207H5, they will then be eligible to switch to the Specialist Program. All students (including transfer students) must complete 4.0 UTM credits before requesting this program.

Note: CGPA for enrolment in this program is calculated based on a minimum of 4.0 credits completed at UTM with final percentage grades (i.e. CR/NCR courses are not applicable).

Completion Requirements:

13.5 credits are required, including at least 6.0 credits at the 300/400 level, of which 1.0 credit must be at the 400 level.

First Year:

1. BIO152H5 and BIO153H5
2. CHM110H5 and CHM120H5
3. (MAT132H5 and MAT134H5) or MAT134Y5 or (MAT135H5 and MAT136H5) or MAT135Y5 or (MAT137H5 and MAT139H5) or MAT137Y5
4. 1.0 credit from: CLA201H5 or ENV100Y5 or (ERS101H5 or ERS120H5) or PHY136H5 or PHY137H5 or PSY100Y5 or WRI173H5 or WRI307H5

Note - (MAT132H5 and MAT134H5) - Calculus for Life Sciences is highly recommended.

Second Year:

1. BIO202H5 and BIO203H5 and BIO205H5 and BIO206H5 and BIO207H5
2. BIO259H5 or STA215H5

*STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third and Fourth Years:

1. BIO313H5 or BIO314H5 or BIO409H5
2. BIO360H5
3. 5.5 additional UTM BIO credits. At least 5.0 of these credits must be at the 300 level or above, of which at least 1.0 must be at the 400 level

It is recommended that students in the specialist program include at least 0.5 credit from each of four of the following groups:

- **Ecology and Field Biology:** BIO311H5 or BIO312H5 or BIO313H5 or BIO330H5 or BIO331H5 or BIO333H5 or BIO373H5 or BIO376H5 or BIO378H5 or BIO412H5 or BIO416H5 or BIO464H5
- **Biology of Whole Organisms:** BIO325H5 or BIO326H5 or ~~BIO335H5 or BIO338H5~~ or BIO354H5 or BIO356H5 or BIO376H5 or BIO378H5
- **Genetics and Evolution:** BIO341H5 or BIO342H5 or BIO347H5 or BIO407H5 or BIO422H5 or BIO427H5 or BIO443H5 or BIO445H5 or BIO464H5
- **Cell, Molecular and Developmental Biology:** BIO314H5 or BIO315H5 or BIO324H5 or BIO362H5 or (BIO370Y5 or BIO371H5) or BIO372H5 or BIO374H5 or BIO375H5 or BIO380H5 or

BIO404H5 or BIO407H5 or BIO408H5 or BIO417H5 or BIO419H5 or BIO422H5 or BIO458H5 or BIO475H5 or BIO476H5 or BIO477H5

• **Physiology and Behaviour:** (BIO208H5 or BIO209H5) or BIO304H5 or BIO310H5 or BIO312H5 or (BIO318Y5 or BIO328H5) or BIO320H5 or BIO368H5 or BIO405H5 or BIO408H5 or BIO409H5 or BIO410H5 or BIO411H5 or BIO414H5 or BIO429H5 or BIO434H5

Up to 1.0 credit may be taken from the following biology-related courses: GGR227H5 or GGR305H5 or GGR307H5 or GGR309H5 or GGR311H5 or GGR312H5 or CHM347H5 or CHM361H5 or CHM362H5 or CHM372H5 or CHM373H5 or PHY332H5 or PHY333H5 or PSY290H5 or PSY355H5 or PSY357H5 or PSY392H5 or PSY395H5 or PSY397H5 or ANT334H5 or ANT336H5 or ANT340H5.

Additional courses: BIO361H5 or BIO400Y5 or BIO481Y5 or JCB487Y5

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5). Adding BIO429 new course as course option. Removal of old BIO courses that are not being taught any longer.

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y as course option. Missed previously adding BIO429H5 (new course) as course option. Removal of BIO335H5 and BIO338H5 as they have not been taught for years (clean up).

Resource Implications:

None

Biology for Health Sciences - Major (Science)

Completion Requirements:

8.5 credits are required including at least 2.0 at the 300/400 level.

Program Requirements:

1. BIO152H5, BIO153H5; CHM110H5, CHM120H5; (MAT132H5 and, MAT134H5 *) or, MAT134Y5 or, (MAT135H5 and, MAT136H5) or, MAT135Y5 or (MAT137H5 and MAT139H5) or, MAT137Y5
Note*Note: (MAT132H5 and, MAT134H5) - for Life Sciences is highly recommended.

2. BIO202H5, BIO206H5, BIO207H5, (BIO208H5, BIO209H5), BIO304H5, BIO310H5, BIO380H5, (, * * BIO259H5 or PSY201H5 or STA215H5) * * STA215

** **Note:** PSY201H5 or STA215H5 will no longer be accepted as appropriate courses for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program. Students who plan to take BIO360H5 or who plan to transfer to a Biology Specialist program should enrol in BIO259H5.

• 1.0 credits from **one** of the following lists:

Cell, Molecular, and Biotechnology Stream: BIO200H5, BIO314H5, BIO315H5, BIO324H5, BIO360H5, BIO370Y5/BIO371H5, BIO372H5, BIO374H5, BIO375H5, BIO404H5, BIO417H5, BIO419H5, BIO422H5, BIO475H5, BIO476H5, BIO477H5; JBC472H5

Neuroscience Stream: BIO320H5, BIO360H5, BIO403H5, BIO408H5, BIO409H5, BIO411H5, BIO429H5

Genes and Behaviour Stream: BIO315H5, BIO318Y5/BIO328H5, BIO341H5, BIO342H5, BIO347H5, BIO360H5, BIO361H5, BIO368H5, BIO405H5, BIO407H5, BIO414H5, BIO422H5, BIO427H5, BIO443H5

*** * Students who plan to take BIO360 or who plan to transfer to a Biology Specialist program should enrol in STA215H5.**

NOTES

- Students should be aware of the distinct credit requirement for their degree (see section 8.6 - HSc Degree Requirements for full details). Completion of this program with another Biology Major or Biology Minor will not satisfy the min. 12.0 distinct credit requirement for a degree. Please choose programs and courses accordingly.
- As part of your degree requirement the 'Biology for Health Sciences' Major would be academically complemented by a Major in Psychology, Anthropology, Exceptionality in Human Learning, Forensic Science, and Chemistry, as well as other disciplines such as the Major in Management. This major program would also be complemented by a Minor in Biomedical Communications (Science).

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5). Addition of BIO259 in notes section regarding BIO360.

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y as course option. Addition of BIO259 in notes section regarding BIO360.

Resource Implications:

None

Biomedical Communications - Minor (Science)

Completion Requirements:

1. BIO152H5 and₇ BIO153H5 and₇ HSC200H5
2. 1.0 credit from the following: HSC300H5 or₇ HSC301H5 or₇ HSC302H5 or₇ HSC307H5
3. 1.5 credits from the following: HSC401H5 or₇ HSC402H5 or₇ HSC403H5/₇ HSC404H5 or₇ HSC405H5 or₇ HSC406H5

Description of Proposed Changes:

HSC403H5 is no longer a course option for this program.

Rationale:

HSC403H5 is no longer being taught (instructor replaced the course with HSC307H5). Forgot to remove the course from the program options previously.

Resource Implications:

None

Biotechnology - Specialist (Science)

Completion Requirements:

15.0 credits are required, including at least 7.0 at the 300/400 level, of which 1.5 must be at the 400 level.

First Year: BIO152H5, BIO153H5; CHM110H5, CHM120H5; (MAT132H5 and MAT134H5 *)
or MAT134Y5 or ~~*/~~(MAT135H5 and MAT136H5) or ~~*/~~MAT135Y5 or (MAT137H5 and MAT139H5)
or ~~*/~~MAT137Y5; MGM101H5**, MGM102H5**

~~Note~~ *Note - (MAT132H5 and MAT134H5) or MAT134Y5Y - Calculus for Life Sciences is highly recommended.

* * Please note that while MGM101H and MGM102H are listed as first-year courses, students cannot enrol in these courses until they are admitted into the Specialist Program and therefore will be taking these courses in their 2nd, 3rd or 4th years of study

Second Year: BIO200H5, BIO202H5/BIO203H5, BIO206H5, BIO207H5; CHM211H5, CHM242H5, CHM243H5; STA215H5 ***

*** STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third and Fourth Years:

1. BIO314H5, BIO315H5, BIO360H5, BIO370Y5, BIO372H5, BIO374H5; CHM311H5, CHM361H5; JBC472H5
2. 1.0 credit from: BIO304H5, BIO310H5, BIO312H5, BIO341H5, BIO342H5, BIO347H5, BIO362H5, BIO375H5, BIO380H5, BIO409H5, BIO429H5; CHM333H5 (note: CHM231H5 is prerequisite for this course), CHM341H5, CHM345H5, CHM347H5, CHM362H5, CHM372H5, CHM373H5
3. 1.0 credit from UTM CHM/BIO courses at the 400 level.

* * Please note that while MGM101H and MGM102H are listed as first-year courses, students cannot enrol in these courses until they are admitted into the Specialist Program and therefore will be taking these courses in their 2nd, 3rd or 4th years of study

NOTE: No substitute statistics course will be allowed for BIO360H5.

It is recommended that students in this program consider taking a research project or internship course in either Biology (BIO400Y5/BIO481Y5) or Chemistry (CPS489Y5 CHM489Y5) or JCB487Y5. Other 4th-year courses directly relevant to this program are BIO443H5, BIO476H5, BIO477H5, CHM414H5 and CHM462H5.

Students may take no more than 2.0 credits combined in ROP, Internship Program, or Individual Project/Thesis courses at the 300/400-level for credit toward their Biology program.

Students must consult with the Undergraduate Advisor before enrolling in any St. George course that they wish to use for credit toward any Biology program.

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5). Addition of new BIO429H5 course as a course option that was missed earlier. Removal of CHM489Y5 as it is not longer being offered.

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y. BIO429H5 is a new course that is being introduced in fall of 2022/2023 (missed adding to program earlier). Change in CHM courses is to reflect that CHM489Y5 has been changed to CPS489Y5

Resource Implications:

None

Comparative Physiology - Specialist (Science)

Completion Requirements:

14.5 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 credit must be at the 400 level.

First Year:

1. BIO152H5 and BIO153H5
2. CHM110H5 and CHM120H5
3. (MAT132H5 and MAT134H5) or MAT134Y5 or (MAT135H5 and MAT136H5) or MAT135Y5 or (MAT137H5 and MAT139H5) or MAT137Y5
4. 1.0 credit from CLA201H5 or ENV100Y5 or ERS101H5 or PHY136H5 or PHY137H5 or PSY100Y5 or WRI173H5 or WRI307H5

Note: (MAT132H5 and MAT134H5) - Calculus for Life Sciences is highly recommended.

Second Year:

1. BIO202H5 and BIO203H5 and BIO205H5 and BIO206H5 and BIO207H5 and BIO208H5 and BIO209H5
2. BIO259H5 or STA215H5

*STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third and Fourth Years:

1. BIO304H5 and BIO310H5 and BIO312H5 and BIO360H5 and BIO409H5;
2. CHM242H5 and CHM243H5
3. At least 2.0 credits from: BIO320H5 or BIO347H5 or BIO354H5 or BIO361H5 or BIO372H5 or BIO404H5 or BIO408H5 or BIO410H5 or BIO411H5 or BIO412H5 or BIO414H5 or BIO417H5 or BIO419H5 or BIO422H5 or BIO429H5 or BIO481Y5 or CHM361H5 or CHM362H5 or JCB487Y5 or PHY332H5 or PHY333H5 or PSY290H5 or PSY395H5
4. 1.0 additional BIO credit taken at U of T Mississauga campus

No substitute statistics course will be allowed for BIO360H5. Students may take no more than 2.0 credits combined in ROP, Internship Program, or Individual Project/Thesis courses at the 300/400-level for credit toward their Biology program. Students must consult with the Undergraduate Advisor before enrolling in any St. George course that they wish to use for credit toward any Biology program.

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5).

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y.

Resource Implications:

None

Ecology and Evolution - Specialist (Science)

Completion Requirements:

14.5 credits are required, including at least 6.0 credits at the 300/400 level, of which 1.0 credits must be at the 400 level.

First Year:

1. BIO152H5 and BIO153H5
2. CHM110H5 and CHM120H5
3. (MAT132H5 and MAT134H5) or MAT134Y5 or (MAT135H5 and MAT136H5) or MAT135Y5 or (MAT137H5 and MAT139H5) or MAT137Y5
4. 1.0 credit from: CLA201H5 or ENV100Y5 or ERS101H5 or PHY136H5 or PHY137H5 or PSY100Y5 or WRI173H5 or WRI307H5

Note: (MAT132H5 and MAT134H5) - Calculus for Life Sciences is highly recommended.

Second Year:

1. BIO202H5 and BIO203H5 and BIO205H5 and BIO206H5 and BIO207H5 and BIO259H5 or STA215H5

*STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third and Fourth Years:

1. BIO313H5 and BIO342H5 and BIO360H5 and BIO443H5
2. 1.0 credit from courses in organismal biology: BIO325H5 or BIO326H5 or BIO335H5 or BIO338H5 or BIO339H5 or BIO354H5 or BIO356H5 or (BIO370Y5 or BIO371H5)
3. 0.5 credit from field courses: BIO416H5 or other 2-week Ontario Universities Program in Field Biology (OUPFB) Courses
4. 2.0 credits from core ecology/evolutionary biology courses: BIO311H5 or BIO330H5 or BIO331H5 or BIO333H5 or BIO341H5 or BIO361H5 or BIO373H5 or BIO376H5 or BIO378H5 or BIO406H5 or BIO427H5 or BIO445H5 or BIO464H5 or GGR312H5 or JBH471H5
5. 1.0 credit from other UTM biology courses at the 300/400 level.
6. 1.0 credit from related courses from other departments: MAT212H5 or MAT222H5 or MAT232H5 or STA302H5 or STA322H5 or GGR227H5 or GGR278H5 or GGR305H5 or GGR307H5 or GGR309H5 or GGR311H5 or from courses listed in #4, #5 and #6

Description of Proposed Changes:

Addition of new math courses. MAT212H5, BIO335H5 and BIO338H5 no longer being taught.

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y. MAT212H5, BIO335H5 and BIO338H5 no longer being offered so this is clean up.

Resource Implications:

None

Molecular Biology - Specialist (Science)

Completion Requirements:

15.0 credits are required.

First Year:

1. BIO152H5 and BIO153H5
2. CHM110H5 and CHM120H5
3. (MAT132H5 and MAT134H5) or MAT134Y5 or (MAT135H5 and MAT136H5) or MAT135Y5 or (MAT137H5 and MAT139H5) or MAT137Y5.
4. 1.0 credit from: CLA201H5 or ENV100Y5 or (ERS101H5 or ERS120H5) or PHY136H5 or PHY137H5 or PSY100Y5 or WRI173H5 or WRI307H5

Note: (MAT132H5 and MAT134H5) - Calculus for Life Sciences is highly recommended.

Second Year:

1. BIO206H5 and BIO207H5
2. CHM242H5 and CHM243H5
3. BIO259H5 or STA215H5
4. 1.0 credit from BIO202H5 or BIO203H5 or BIO205H5

*STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third Year:

1. BIO314H5 and BIO315H5 and BIO342H5 and BIO360H5 and BIO370Y5 and BIO372H5
2. CHM361H5 and CHM362H5 and CHM372H5 and CHM373H5
3. 0.5 credit from BIO304H5 or BIO310H5 or BIO341H5 or BIO347H5 or BIO362H5 or BIO368H5 or BIO374H5 or BIO375H5 or BIO380H5 or CHM347H5 or PHY332H5 or PHY333H5 or BCH335H1 or BCH340H1

Fourth Year:

1. BIO477H5 or BIO419H5**
2. 1.0 credit from BIO403H5 or BIO407H5 or BIO408H5 or BIO411H5 or BIO417H5 or BIO419H5 or BIO422H5 or BIO429H5 or BIO443H5 or BIO458H5 or BIO476H5 or BIO477H5 or BIO481Y5 or BCH441H1 or CHM444H5 or CHM462H5 or CPS489Y5 ~~CHM489Y5~~ or JBC472H5 or JCB487Y5 or JCP463H5 or CSB435H1 or CSB450H1 or CSB459H1 or CSB472H1 or CSB473H1 or CSB474H1 or CSB475H1 or MGY425H1 or MGY428H1 or MGY440H1 or MGY445H1 or MGY451H1 or MGY452H1 or MGY470H1 or MIJ485H1

** Please note that both BIO477H5 and BIO419H5 can be taken, but each will be counted only once in the total 1.5 credits required in this section.

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5). Removing CHM489Y5Y no longer being offered.

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y as course option. Change in CHM courses is to reflect that CHM489Y5 has been changed to CPS489Y5

Resource Implications:

None

Paleontology - Major (Science)

Completion Requirements:

First Year: BIO152H5, BIO153H5; CHM110H5, CHM120H5; (MAT132H5 ~~and~~, MAT134H5)*
~~or~~/MAT134Y5 ~~or~~/(MAT135H5 ~~and~~, MAT136H5) ~~or~~/MAT135Y5 ~~or~~ (MAT137H5 ~~and~~ MAT139H5)
~~or~~/MAT137Y5; ENV100Y5/ERS101H5/ERS120H5/ERS111H5

~~Note~~*Note - (MAT132H5 and, MAT134H5) - Calculus for Life Sciences is highly recommended.
ENV100Y5/ERS101H5/ERS120H5/ERS111H5

Second Year: (BIO208H5, BIO209H5), ERS201H5, ERS202H5, ERS203H5; ESS261H1; STA215H5

*STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024 Academic year all students will be required to complete BIO259H5 as the statistics course for this program.

Third Year and Fourth Year: ERS325H5; BIO354H5, BIO356H5, ESS331H1

Description of Proposed Changes:

Math has split up MAT137Y5Y (1.0 credit course) into two new 0.5 credit courses (MAT137H5 and MAT139H5).

Rationale:

Adding MAT137H5 and MAT139H5 courses which will in future replace MAT137Y5Y as course option.

Resource Implications:

None

Chemical and Physical Sciences (UTM), Department of

21 Course Modifications:

AST221H5: Astrophysics I – Planets, Sun and Stars

Prerequisites: AST110H5 and [(MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5]and(PHY146H5 and PHY147H5)

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM110H5: Chemical Principles 1

Corequisites: Recommended Corequisite: (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5); this recommended corequisite is a prerequisite for all 200 level CHM courses.

Rationale:

to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM120H5: Chemical Principles 2

Corequisites: Recommended Corequisite: (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5); this recommended corequisite is a prerequisite for all 200 level CHM courses.

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM211H5: Fundamentals of Analytical Chemistry

Prerequisites: CHM110H5 and a minimum grade of 60% in CHM120H5 and [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5)]

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM231H5: Inorganic Chemistry I

Prerequisites: ~~CHM110H5 and a minimum grade of 60% in CHM120H5~~ and [(MAT132H5 and MAT134H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT135H5 and MAT136H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5)].

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM242H5: Introductory Organic Chemistry I

Prerequisites: ~~CHM110H5 and a minimum grade of 60% in CHM120H5~~ and [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5)].

Exclusions: CHM136H1 or CHMB41H3 or CHMB43Y3 ~~CHMB43Y~~

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM299Y5: Research Opportunity Program

Prerequisites: Completion of at least 4.0 credits and no more than 10.0 credits, which must include CHM110H5 and CHM120H5 with a minimum grade of 60% and [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5)].

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Consultation:

Resources:

None

CHM399Y5: Research Opportunity Program

Prerequisites: 8.0 credits, including {CHM110H5 and CHM120H5 with a minimum grade of 60%} and [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5)] and 2.0 credit of ~~200 level~~ CHM/JCP at the 200-level courses.

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

CHM485H5: Dissertation Based on Literature Research

Description: A dissertation will be written based on literature research of a topic of current interest in the field of chemistry. The research will be conducted under the supervision of a chemistry faculty member other than the student's CPS489Y5 CHM489Y5 supervisor. The research topic must not overlap that of the student's CPS489Y5 CHM489Y5 project. The goals of this course are to achieve literature research expertise as well as in-depth knowledge of a particular chemistry topic, while perfecting scientific writing and oral presentation skills. Evaluation is based on a final written report describing the aims and results of the research, as well as an oral presentation of the work. The course is normally taken in the student's fourth year, in either the Fall or Winter terms, but may be taken in the Summer term. Enrolment in CHM485H5 requires submitting an application to the department before the end of the term prior to that in which it is intended to undertake the research. Independent Studies Application Forms may be found at <http://uoft.me/cpsforms>. Applications should be submitted to the CPS Undergraduate Assistant. Registration on ACORN is also required. Students are encouraged to

consult with, and obtain the consent of, prospective supervisors before applying for enrolment.
~~{24}~~

Rationale:

Small correction required in the course description. The old course code of CPS489Y5 was showing in the course description.

Resources:

None

ERS303H5: Geophysics

Prerequisites: [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or MAT137Y5] and [(PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)] and ERS202H5 and 1.0 credits from (ERS201H5 or ERS203H5 or ERS211H5 or ERS225H5).

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

ERS403H5: Earthquake Seismology

Prerequisites: [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT134Y5 or MAT135Y5 or MAT137Y5)] and [(PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)] and 1.0 credit from ERS201H5 or ERS202H5 or ERS203H5

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

JCP221H5: Thermodynamics

Prerequisites: [(CHM110H5 and CHM120H5 with a minimum grade of 60% in CHM120H5) or (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)] and [(MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5]

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

JCP265H5: Introduction to Scientific Computing

Prerequisites: [(PHY146H5 or PHY136H5(minimum grade of 80%))] and [(PHY147H5 or PHY137H5 (minimum grade of 80%))] and [(MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT135Y5 or MAT137Y5)]

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

PHY146H5: Principles of Physics I

Prerequisites: Grade 12 Physics (SPH4U)and Grade 12 Advanced Functions (MHF4U) and Grade 12 Calculus & Vectors (MCV4U)

Corequisites: (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT135Y5 or MAT137Y5)

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

PHY147H5: Principles of Physics II

Corequisites: (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5)or (MAT135Y5 or MAT137Y5)

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

None.

PHY241H5: Electromagnetism

Prerequisites: [(PHY146H5 or PHY136H5(minimum grade of 80%)) and (PHY147H5 or PHY137H5 (minimum grade of 80%))]and [(MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT135Y5 or MAT137Y5)]

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

PHY245H5: Vibrations and Waves

Description: The analysis of vibrating systems and wave motion, introducing mathematical techniques such as complex numbers, eigenvalue problems, and Fourier series. Topics include: simple and coupled oscillators; dispersion relations and boundary conditions; travelling waves; propagation of electromagnetic waves in materials; reflection and transmission of waves at interfaces. [24L, 15P, 8T]

Prerequisites: [(PHY146H5 or PHY136H5(minimum grade of 80%)) and (PHY147H5 or PHY137H5 (minimum grade of 80%))]and [(MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT135Y5 or MAT137Y5)]

Rationale:

To reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resources:

none

PHY332H5: Molecular Biophysics

Description: A physicist's perspective on the building blocks of the living world, such as nucleic acids, proteins and lipids. Topics may vary but The course will include: levels of cover topics such as symmetry, structural complexity in biomolecules of the biological macromolecules, molecular interactions in the cellular environment and the impact for the biological function. Basic concepts from mechanics and thermodynamics will be applied specifically to proteins and DNA in order to understand structural transitions, molecular forces stabilizing interactions, the stability of biological structures, reaction dynamics and the interaction of radiation with molecules equilibrium. A rigorous treatment of a wide range of commonly used biophysical

techniques **commonly use in life science**, such as **calorimetry**, optical spectroscopy, light/X-ray/neutron scattering, **mass spectrometry** and single-molecule methods, will be accompanied by **recent examples from the molecular biophysics research applications.**[24L, 12T]

Prerequisites: PHY241H5 and PHY255H5 and JCP221H5

Corequisites:

Previous:

New: JCP321H5

Rationale:

Rationale for course description change: The course description has been modified to better reflect the current items and concepts taught in the course. For example, structural transitions in biomolecules (e.g., protein folding) has been replaced by new biophysical techniques (e.g., calorimetry, X-ray/neutron scattering) and their applications. The new text is more concise and accurate, and the content will better prepare students for experiential learning projects (e.g., ROP and thesis courses).

Rationale for course prerequisite and corequisite Change – Topics covered in PHY241 (Electromagnetism) are important for understanding the nature of the forces in biological molecules and how they interact with electromagnetic radiation. JCP321H5 (Introduction to Quantum Mechanics) covers important topics necessary for understanding how light interacts with (biological) molecules (e.g. absorption of light, fluorescence). Currently, the students are taught these concepts in PHY332, so adding JCP321 as co-requisite will free up time to cover biophysical concepts in more depth.

Resources:

None

PHY343H5: Classical Mechanics

Description:

Previous: An introduction to classical Newtonian mechanics . Topics to be covered include energy and momentum conservation, coupled harmonic oscillators, central forces and gravitation, rigid bodies and rotational motion, non-inertial reference frames, and the calculus of variations including the Euler-Lagrange equation and Hamiltonian mechanics. [24L, 12T]

New: A mathematical treatment of Newtonian mechanics . Topics include: variational principles, Lagrangian mechanics, Noether's theorem, symmetry and conservation laws, applications (orbits, oscillators, scattering) , introduction to Hamiltonian mechanics .

Prerequisites:

Previous: JCP221H5 or PHY245H5

New: PHY146H5 and MAT244H5

Rationale:

Rationale for course description change: The description has been modified to better reflect the items and concepts that will be taught in the course. For example, references to Noether's theorem and Lagrangian mechanics have been added, as well as applications to orbits, oscillators and scattering. Also the mathematical treatment of Newtonian mechanics has been emphasized.

Rationale for prerequisite Change – The Physics topics covered in this course require concepts introduced in PHY146H5, and the mathematical treatment requires techniques and concepts covered in MAT244 (Differential equations). The previous pre-requisites were less relevant for this course.

Resources:

None.

PHY347H5: Optics

Description: ~~This course will focus~~ ~~focuses mainly on~~ ~~providing a strong foundation of~~ wave optics, ~~while also presenting advanced geometrical~~ optics aspects and ~~introduce students an~~ introduction to modern optics and the quantum nature of light. ~~Topics~~ ~~The topics in this course~~ may vary but will include: electromagnetic waves and the propagation of light, basic coherence concepts and the interference of light, Fraunhofer and Fresnel diffraction, ~~matrix methods in~~ paraxial optics, Fresnel equations, polarization of light, and birefringence. ~~Technical applications will accompany the lectures,~~ blackbody radiation allowing students to put into practice the optical principles learned during the lecture by performing laboratory experiments with lasers and principles of laser operation ~~other optical devices.~~
{24L, 15P, 12T}

Prerequisites: PHY241H5 and PHY245H5 and MAT232H5 and MAT244H5

Rationale:

Rationale to change course description: The course description has been modified to better reflect the current items and concepts taught in the course. For example, references to geometrical optics and matrix methods have been removed, and references to blackbody radiation and laser operation have been added. The reference to technical applications has been removed, as practicals are not typically included in the course description (this is not a lab course).

Rationale to add 2 new course prerequisites: MAT232 (Calculus of several variables) and MAT244 (Differential equations) should be required for rigorous treatment of topics covered in the PHY 2nd year courses, such as PHY 241 (Electromagnetism), probably requiring both, and PHY245 (Vibrations and Waves), probably requiring only MAT244. If these courses are not changed accordingly, the two MAT courses should appear as explicit pre-requisites for PHY347. Teaching Optics at 300 level requires concepts from PHY241 and PHY245 and mathematical techniques covered in both MAT courses.

Resources:

None

PHY451H5: Classical Electrodynamics

Contact Hours:

Previous: *Lecture: 24 / Tutorial: 12*

New: *Lecture: 24 / Tutorial: 24*

Description: An overview of electromagnetism leading to the study of radiation. A review of electrostatics, magnetostatics, and Maxwell's equations is followed by a discussion of propagating, non-propagating and guided waves; interactions with dielectric boundaries; multipole radiation fields, and simple models of optical dispersion. ~~{24L, 12T}~~

Rationale:

The TUT Instruction hours are changed from 12 T to 24 T.

Rationale behind the increase: Students will greatly benefit from having a 2-hour tutorial.

Solving tutorial problems in this course takes some time, and in 1 hour, there is typically only time to go through one to two problems at most. Students would like more examples worked out in detail, but there is not enough time to do that during tutorials (or lectures).

Resources:

Two hour classroom slot will be required instead of the 1 hour slot to deliver the TUT. Existing TA rationale will be required to be updated and sent to office of the Dean for approval.

11 Program Revisions:

Astronomical Sciences - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program limited.

For students applying in 2021-2022 for program entry in the 2022-2023 Academic Year, 4.0 credits are required, including the following:

1. AST110H5
2. MAT102H5
3. (MAT135H5 and MAT136H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)

For students applying in 2022-2023 (and beyond) for program entry in the 2023-2024 Academic Year (and beyond), 4.0 credits are required, including the following:

1. AST110H5
2. MAT102H5
3. (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
5. ISP100H5

Completion Requirements:

14.0-14.5 credits are required.

First Year:

1. AST110H5
2. MAT102H5
3. (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. MAT223H5 or MAT240H5
5. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
6. For students entering the program in 2023-2024 (and beyond): ISP100H5

Second Year:

1. AST221H5 and AST222H5
2. MAT232H5 or MAT233H5
3. MAT236H5 and MAT244H5
4. PHY241H5 and PHY245H5
5. PHY242H5 or JCP221H5

Third Year:

1. AST320H5
2. JCP265H5 or CSC108H5 or AST325H1

3. JCP321H5 and JCP322H5
4. MAT311H5 and MAT334H5
5. PHY325H5 and PHY347H5

Fourth Year:

1. AST399Y5 or AST425Y1
2. JCP421H5
3. PHY451H5
4. STA220H5 or STA256H5

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Astronomy - Major (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program limited.

For students applying in 2021-2022 for program entry in the 2022-2023 Academic Year, 4.0 credits are required, including the following:

1. AST110H5
2. MAT102H5
3. (MAT135H5 and MAT136H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)

For students applying in 2022-2023 (and beyond) for program entry in the 2023-2024 Academic Year (and beyond), 4.0 credits are required, including the following:

1. AST110H5
2. MAT102H5
3. (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
5. ISP100H5

Completion Requirements:

9.0-9.5 credits are required.

First Year:

1. AST110H5

2. MAT102H5
3. (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
4. MAT223H5 or MAT240H5
5. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
6. For students entering the program in 2023-2024 (and beyond): ISP100H5

Second Year:

1. AST221H5 and AST222H5
2. MAT244H5 and MAT236H5
3. MAT232H5 or MAT233H5
4. PHY241H5 and PHY245H5
5. PHY242H5 or JCP221H5

Higher Years:

1. AST320H5
2. JCP321H5
3. JCP322H5 or 0.5 credit at the 300/400-level approved by the faculty advisor.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Biological Chemistry - Specialist (Science)

Description:

Previous: This program is accredited by the Canadian Society for Chemistry .

New:

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited.

For students applying in 2021-2022 for program entry in the 2022-2023 Academic Year, 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 65% in CHM120H5)
2. (MAT132H5 and MAT134H5, minimum grade of 65% in MAT134H5) or (MAT135H5 and MAT136H5, minimum grade of 65% in MAT136H5 MAT136H6) or MAT134Y5 (minimum grade of 65%) or MAT135Y5 (minimum grade of 65%) or MAT137Y5 (minimum grade of 65%) or MAT157Y5 (minimum grade of 65%)
3. A minimum CGPA of 2.5

For students applying in 2022-2023 (and beyond) for program entry in the 2023-2024 Academic Year (and beyond), 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 65% in CHM120H5)
2. (MAT132H5 and MAT134H5, minimum grade of 65% in MAT134H5) or (MAT135H5 and MAT136H5, minimum grade of 65% in MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5 MAT136H6) or MAT134Y5 (minimum grade of 65%) or MAT135Y5 (minimum grade of 65%) or MAT137Y5 (minimum grade of 65%) or MAT157Y5 (minimum grade of 65%)
3. ISP100H5
4. A minimum CGPA of 2.5

NOTE: Completion of BIO152H5 prior to enrolment is recommended.

Completion Requirements:

14.0-14.5 credits are required.

First Year:

1. BIO152H5
2. CHM110H5 and CHM120H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
4. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
5. For students entering the program in 2023-2024 (and beyond): ISP100H5

Second Year:

1. CHM211H5 and CHM231H5 and CHM242H5 and CHM243H5
2. JCP221H5
3. BIO206H5 and BIO207H5
4. 0.5 credit of MAT or CSC or STA (at any level)

Third Year:

1. CHM333H5 and (CHM341H5 or CHM345H5) and CHM347H5 and CHM361H5 and CHM362H5 and CHM372H5 and CHM373H5
2. BIO372H5

Fourth Year:

1. CHM399Y5 or CHM489Y5 or CPS489Y5 or CPS400Y5 or JCB487Y5 or (BCH472Y1 or BCH473Y1, with permission of the CHM Program Advisor)
2. 1.5 credits from the following courses: BIO324H5 or CHM412H5 or CHM444H5 or CHM462H5 or CHM485H5 or JCP410H5 or JCP422H5 or JCP463H5 or JBC472H5 or CHM447H1 or CHM479H1 or any 400 level BCH lecture course.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Biomedical Physics - Specialist (Science)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is based on completion of 4.0 credits, including:

1. PHY146H5 (with a minimum grade of 65%) or PHY136H5 (with a minimum grade of 80%);
2. PHY147H5 (with a minimum grade of 65%) or PHY137H5 (with a minimum grade of 80%); and
3. ~~ISP100H5~~
4. ([MAT132H5](#) and [MAT134H5](#) (minimum grade of 65% in MAT134H5)) or ([MAT135H5](#) and [MAT136H5](#) (minimum grade of 65% in MAT136H5)) or ([MAT137H5](#) and [MAT139H5](#)) or ([MAT157H5](#) and [MAT159H5](#)) or [MAT134Y5](#) (minimum grade of 65%) or [MAT135Y5](#) (minimum grade of 65%) or [MAT137Y5](#) or [MAT157Y5](#)
5. A minimum CGPA of 2.5

Completion Requirements:

14.0 credits are required.

First Year:

1. (PHY146H5 and PHY147H5) or (PHY136H5 and PHY137H5)
2. BIO152H5
3. CHM110H5 and CHM120H5
4. ([MAT135H5](#) and [MAT136H5](#)) or ([MAT137H5](#) and [MAT139H5](#)) or ([MAT157H5](#) and [MAT159H5](#)) or [MAT135Y5](#) or [MAT137Y5](#) or [MAT157Y5](#)
5. ~~ISP100H5~~

Second Year:

1. PHY241H5 and PHY245H5 and PHY255H5
2. JCP221H5 and JCP265H5
3. MAT232H5 and (MAT212H5 or MAT244H5 or STA256H5)
4. BIO206H5

Third Year:

1. PHY324H5 and PHY325H5 and PHY332H5 and PHY333H5 and PHY347H5
2. JCP321H5 and JCP322H5

Fourth Year:

1. PHY426H5 and PHY451H5 and JCP421H5
2. [(PHY433H5 or JCP463H5) and PHY473H5] or PHY489Y5 or CPS489Y5 or CPS400Y5 or JCB487Y5 or PHY399Y5

NOTES:

1. At least 65% mark in PHY146H5 and PHY147H5
2. At least 80% in PHY136H5 and PHY137H5

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Rationale to remove ISP100H5 from entry requirements: The physics group is seeking to remove ISP100 as a program enrolment requirement to reduce (real or perceived) barriers to entry to their programs and increase enrolments. ISP100 remains a required course for completion of both the Physics Major and Biomedical Physics Specialist programs and will be included in the list of first year courses, to clearly signal to students that this important writing course should be completed at an early stage of their studies. Removing ISP100 as a program enrolment requirement also provides the opportunity for students to complete the course in the summer term, providing them with more flexibility without impacting their ability (again, real or perceived) to enter our physics programs

Resource Implications:

none

Chemistry - Major (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited.

For students applying in 2021-2022 for program entry in the 2022-2023 Academic Year, 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 60% in CHM120H5)
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5

For students applying in 2022-2023 (and beyond) for program entry in the 2023-2024 Academic Year (and beyond), 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 60% in CHM120H5)
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
3. ISP100H5

Completion Requirements:

8.0-8.5 credits are required.

First Year:

1. CHM110H5 and CHM120H5
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
3. For students entering the program in 2023-2024 (and beyond): ISP100H5

Second Year:

1. CHM211H5 and CHM231H5 and CHM242H5 and CHM243H5

2. JCP221H5

Higher Years:

1. (CHM372H5 and CHM373H5) or (CHM394H5 and CHM395H5) or (CHM396H5 and CHM397H5)
2. 1.5 credits from lecture courses: CHM311H5 or CHM331H5 or CHM333H5 or CHM341H5 or CHM345H5 or CHM347H5 or CHM361H5 or CHM362H5 or CHM436H5 or CHM412H5 or CHM414H5 or CHM416H5 or CHM442H5 or CHM444H5 or CHM462H5 or JCP321H5 or JCP322H5 or JCP410H5 or JCP421H5 or JCP422H5 or JCP463H5
3. 1.0 credit from: CHM311H5 or CHM331H5 or CHM333H5 or CHM341H5 or CHM345H5 or CHM347H5 or CHM361H5 or CHM362H5 or CHM372H5 or CHM373H5 or CHM394H5 or CHM395H5 or CHM396H5 or CHM397H5 or CHM399Y5 or CHM412H5 or CHM414H5 or CHM416H5 or CHM436H5 or CHM442H5 or CHM444H5 or CHM462H5 or CHM485H5 or CHM489Y5 or CPS489Y5 or CPS398H5 or CPS400Y5 or FSC311H5 or JCP321H5 or JCP322H5 or JCP410H5 or JCP421H5 or JCP422H5 or JCP463H5 or JBC472H5 or JCB487Y5

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5)

Resource Implications:

none

Chemistry - Minor (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in the Chemistry Minor Program is based on completion of 4.0 credits including

1. CHM110H5 and CHM120H5 (minimum grade of 60% in CHM120H5)
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5

Completion Requirements:

4.0 credits in CHM/JCP are required.

First Year:

1. CHM110H5 and CHM120H5

Higher Years:

1. 2.0 credits from: CHM211H5 or CHM231H5 or CHM242H5 or CHM243H5 or CHM311H5 or CHM331H5 or CHM333H5 or CHM341H5 or CHM345H5 or CHM347H5 or CHM361H5 or CHM362H5 or CHM372H5 or CHM373H5 or CHM394H5 or CHM395H5 or CHM396H5 or CHM397H5 or CHM412H5 or CHM414H5 or CHM416H5 or CHM436H5 or CHM442H5 or

CHM444H5 or CHM462H5 or JCP221H5 or JCP321H5 or JCP322H5 or JCP410H5 or JCP421H5 or JCP422H5 or JCP463H5 or FSC311H5

2. 1.0 credits at 300/400 level from: CHM311H5 or CHM331H5 or CHM333H5 or CHM341H5 or CHM345H5 or CHM347H5 or CHM361H5 or CHM362H5 or CHM372H5 or CHM373H5 or CHM394H5 or CHM395H5 or CHM396H5 or CHM397H5 or CHM412H5 or CHM414H5 or CHM416H5 or CHM436H5 or CHM442H5 or CHM444H5 or CHM462H5 or JCP321H5 or FSC311H5 or JCP322H5 or JCP410H5 or JCP421H5 or JCP422H5 or JCP463H5

Notes:

• (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 is required for all 200-level CHM/JCP courses.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Chemistry - Specialist (Science)

Description:

Previous: This program is accredited by the Canadian Society for Chemistry.

New:

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited.

For students applying in 2021-2022 for program entry in the 2022-2023 Academic Year, 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 65% in CHM120H5)
2. (MAT132H5 and MAT134H5, with a minimum grade of 65% in MAT134H5) or (MAT135H5 and MAT136H5, with a minimum grade of 65% in MAT136H5) or MAT134Y5 (minimum grade of 65%) or MAT135Y5 (minimum grade of 65%) or MAT137Y5 (minimum grade of 65%) or MAT157Y5 (minimum grade of 65%)
3. A minimum CGPA of 2.5

For students applying in 2022-2023 (and beyond) for program entry in the 2023-2024 Academic Year (and beyond), 4.0 credits are required, including the following:

1. CHM110H5 and CHM120H5 (minimum grade of 65% in CHM120H5)
2. (MAT132H5 and MAT134H5, with a minimum grade of 65% in MAT134H5) or (MAT135H5 and MAT136H5, with a minimum grade of 65% in MAT136H5) or (MAT137 and MAT139) or (MAT157 and MAT159) or MAT134Y5 (minimum grade of 65%) or MAT135Y5 (minimum grade of 65%) or MAT137Y5 (minimum grade of 65%) or MAT157Y5 (minimum grade of 65%)

3. ISP100H5
4. A minimum CGPA of 2.5

Completion Requirements:

13.0-13.5 credits are required.

First Year:

1. CHM110H5 and CHM120H5
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137 and MAT139) or (MAT157 and MAT159) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
3. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
4. For students entering the program in 2023-2024 (and beyond): ISP100H5

Second Year:

1. CHM211H5 and CHM231H5 and CHM242H5 and CHM243H5
2. JCP221H5
3. MAT212H5 or MAT232H5

Third Year:

1. CHM311H5 and CHM331H5 and CHM361H5 and CHM394H5 and CHM396H5
2. CHM341H5 or CHM345H5
3. JCP321H5

Fourth Year:

1. (CHM395H5 and CHM397H5) or CHM399Y5 or CHM489Y5 or CPS489Y5 or CPS400Y5 or CPS401Y5 or JCB487Y5
2. 1.5 credits lecture courses from: CHM412H5 or CHM414H5 or CHM416H5 or CHM436H5 or CHM442H5 or CHM444H5 or CHM462H5 or JCP421H5 or JCP422H5 or JCP410H5 or JCP463H5
3. 1.0 credit from: CHM333H5 or CHM341H5 or CHM345H5 or CHM347H5 or CHM362H5 or CHM372H or CHM373H5 or CHM395H or CHM397H5 or CHM412H5 or CHM414H5 or CHM416H5 or CHM436H5 or CHM442H5 or CHM444H5 or CHM462H5 or CHM485H5 or CPS398H5 or FSC311H5 or JCP321H5 or JCP322H5 or JCP410H5 or JCP421H5 or JCP422H5 or JCP463H5

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5)

Resource Implications:

none

Earth Science - Major (Science)

Completion Requirements:

8.0-8.5 credits are required, including at least 3.0 at the 300/400 level.

First Year:

1. ~~1.~~ ERS101H5 or ERS111H5 or ENV100Y5
2. ISP100H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 or MAT136H5) or (MAT137H5 and MAT139H5) or MAT134Y5 or MAT135Y5 or MAT137Y5
4. ~~2.~~ (CHM110H5 and CHM120H5) or (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)

Second Year:

1. ERS201H5 and ERS202H5 and ERS203H5
2. 0.5 credit from ERS211H5 or ERS225H5 or GGR214H5 or GGR217H5 or GGR227H5 or GGR272H5 or GGR276H5 or GGR278H5

Higher Years: 3.0 additional credits at the 300/400 level from ERS301H5 or ERS302H5 or ERS303H5 or ERS304H5 or ERS311H5 or ERS312H5 or ERS315H5 or ERS325H5 or ERS381H5 or ERS401H5 or ERS402H5 or ERS403H5 or ERS404H5 or ERS411H5 or ERS412H5 or ERS425H5 or PHY351H5 or JGE378H5 or CPS400Y5.

NOTE: GGR272H5 is a prerequisite for GGR278H5.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Earth Science - Specialist (Science)

Completion Requirements:

14.5-15.0 credits are required, including at least 5.0 at the 300/400 level, of which 1.0 credit must be at the 400 level.

First Year:

1. ERS101H5 or ERS111H5 or ENV100Y5
2. ISP100H5
3. CHM110H5 and CHM120H5
4. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or MAT137Y5
5. (PHY136H5 and PHY137H5) or (PHY146H5 and PHY147H5)
6. BIO152H5 and BIO153H5

Second Year: ERS201H5 and ERS202H5 and ERS203H5 and ERS211H5 and ERS225H5 and STA220H5

Third and Fourth Years:

1. ERS301H5 and ERS303H5 and ERS311H5 and ERSE315H5 and ERS325H5.
2. 4.0 additional credits from GGR201H5 or GGR217H5 or JGE378H5 or PHY351H5 or JCB487Y5 or any ERS course at the 300/400 level. Of these 4.0 credits, 1.0 credit must be at the 400 level.

NOTES:

1. No more than 1.0 credit from CPS489Y5 or ERS399Y5 or ERS499Y5 or ERS470Y5 or ERS471H5 or JCB487Y5 can be counted toward the Earth Science Specialist program.
2. Students interested in future certification by the Association of Professional Geologists of Ontario in their Geology and Environmental Geoscience oriented streams may benefit from taking courses in one of the following two pathways:

Resources, Hazards & Tectonics Pathway: ERS302H5, ERS304H5, ERS402H5, ERS403H5, ERS404H5, ERS425H5, JGE378H5, and 0.5 credit from CPS489Y5/ERS399Y5/ERS470Y5/ERS471H5/ERS472H5/JCB487Y5.

Earth, Climate, & Life Pathway: ERS304H5, ERS312H5, ERS411H5, ERS412H5, ERS425H5, GGR201H5, GGR217H5, and 0.5 credit from CPS489Y5/ERS399Y5/ERS470Y5/ERS471H5/ERS472H5/JCB487Y5.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Physics - Major (Science)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is based on completion of 4.0 credits, including:

- ONE of the following:
 - PHY146H5 (with a minimum grade of 60%) and PHY147H5 (with a minimum grade of 60%)
 - PHY136H5 (with a minimum grade of 80%) and PHY137H5 (with a minimum grade of 80%)
- [ISP100H5](#)
- ([MAT132H5](#) and [MAT134H5](#)) or ([MAT135H5](#) and [MAT136H5](#)) or ([MAT137H5](#) and [MAT139H5](#)) or ([MAT157H5](#) and [MAT159H5](#)) or [MAT134Y5](#) or [MAT135Y5](#) or [MAT137Y5](#) or [MAT157Y5](#)

Completion Requirements:

8.5 credits are required.

First Year:

1. (PHY146H5 and PHY147H5) or (PHY136H5 or PHY137H5)
2. (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT135Y5 or MAT137Y5 or MAT157Y5
3. ISP100H5

Second Year:

1. PHY241H5 and PHY245H5
2. JCP221H5 and JCP265H5

Third & Fourth Years:

PHY324H5 and PHY325H5 and PHY343H5 and PHY347H5 and PHY451H5 and JCP321H5 and JCP322H5 and JCP421H5

NOTES:

1. At least 60% mark in PHY146H5 and PHY147H5
2. At least 80% in PHY136H5 and PHY137H5

Rationale:

1) Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

2) Rationale to remove ISP100H5 from entry requirements: The physics group is seeking to remove ISP100 as a program enrolment requirement to reduce (real or perceived) barriers to entry to their programs and increase enrolments. ISP100 remains a required course for completion of both the Physics Major and Biomedical Physics Specialist programs and will be included in the list of first year courses, to clearly signal to students that this important writing course should be completed at an early stage of their studies. Removing ISP100 as a program enrolment requirement also provides the opportunity for students to complete the course in the summer term, providing them with more flexibility without impacting their ability (again, real or perceived) to enter our physics programs

Resource Implications:

none

Physics - Minor (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is based on completion of 4.0 credits including:

1. (PHY146H5 (minimum grade of 60%) and PHY147H5 (minimum grade of 60%)) ; or (PHY136H5 (with a minimum grade of 80%) and PHY137H5 (with a minimum grade of 80%))
2. ([MAT132H5](#) and [MAT134H5](#)) or ([MAT135H5](#) and [MAT136H5](#)) or ([MAT137H5](#) and [MAT139H5](#)) or ([MAT157H5](#) and [MAT159H5](#)) or [MAT134Y5](#) or [MAT135Y5](#) or [MAT137Y5](#) or [MAT157Y5](#)

Completion Requirements:

4.0 credits are required including at least 1.5 credits at the 300/400 level. Please note that a number of these courses have MAT pre-requisites and/or co-requisites.

First Year: (PHY146H5 and PHY147H5) or (PHY136H5 and PHY137H5)

Second Year: PHY241H5 and PHY245H5 and JCP265H5

Higher Years: 1.5 credits from: JCP321H5, JCP322H5, JCP421H5, PHY324H5, PHY325H5, PHY332H5, PHY333H5, PHY343H5, PHY347H5, PHY351H5, PHY426H5, PHY433H5, PHY451H5.

NOTES:

1. At least 60% mark in PHY146H5 ~~PHY146~~ and PHY147H5 ~~PHY147~~
2. At least 80% in PHY136H5 ~~PHY136~~ and PHY137H5 ~~PHY137~~
3. Not all 300 and 400 level courses are offered every year. Please check the course timetable carefully each academic year.
4. Check all prerequisites and corequisites when registering for 200+ level courses.

Rationale:

Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).

Resource Implications:

none

Geography, Geomatics and Environment (UTM), Department of

1 New Course:

GGR381H5: Spatial Database

Contact Hours:

Lecture: 24 / Practical: 12

Description: Students will gain basic knowledge of spatial database design, implementation, query, and sharing. Playing with real-world datasets, students will create, edit, and manage geospatial database using a variety of commercial and open-source software such as ArcGIS and PostgreSQL.

Prerequisites: GGR278H5 or CSC263H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

This course will complement the existing technical courses and practical laboratory in the Geographic Information System (GIS) program and bridge GIS with the computer science (CS) program in accomplishing the following goals identified by the Implementation of the Academic Plan at UTM.

- Goal 1: inspire student success by supporting a rigorous and innovative academic environment.
- o Create opportunities for engaged learning in multi-disciplinary collaborations
 - o Promote engagement and personal development by solving real-world problems
 - o Embrace evolutions in curriculum and pedagogy in innovative ways

While the GIS program at UTM has a strong curriculum design on GIS applications (with courses GGR370 Geography of Transportation, GGR372 Geographical Analysis of Land Resources, and GGR332 GIS and Population Health etc.), a gap is identified for the GIS development. Since GIS has wide applications in a variety of disciplines dealing with spatial data, the development of GIS technologies is rapidly evolving. The Spatial Database course will make students think about the design and efficiency of data structures for managing big spatial data, creating opportunities for multi-disciplinary collaborations. By solving real-world problems, this course creates more opportunities for students to engage with authentic experience. In addition, this course will embrace innovative pedagogy, such as data-driven design, which can be adopted in other courses in GIS and CS programs.

The proposed course bridges the CS and GIS programs and attract high quality and motivated students into these programs. By filling the gap in the curriculum, it enhances students' competency in the development and management of spatial database for efficient computation

of big geospatial data. Spatial database is also a necessary career skill that is not currently taught within our GIS program. Including Spatial Database in the curriculum will increase the employability of graduates.

Resources:

Lab Space (Resource Implication form has been submitted)

1 Course Modifications:

GGR376H5: Spatial Data Science II

Prerequisites: (9.0 credits including GGR276H5 or STA256H5) or permission of instructor

Rationale:

The program requirements list GGR276H5 or STA256H5 therefore we have updated prerequisites.

Resources:

none

Mathematical and Computational Sciences (UTM), Department of

2 New Courses:

CSC479H5: Advanced Algorithms for Robotics

Contact Hours:

Lecture: 24 / Practical: 12

Description: Enabling safe and interactive robotic autonomy requires broad technical capabilities for perception, decision-making, and control. Building such capabilities involves numerous complex design decisions and algorithmic challenges. Following upon a first exposure to robotics, this course will provide advanced algorithmic and learning based tools for the development and deployment of intelligent robotic systems. It will focus on presenting state estimation, robotic vision, and learning-based planning and control techniques and present these techniques in different robotic application settings.

Prerequisites: CSC311H5 and CSC375H5

Corequisites:

Exclusions:

Recommended Preparation: CSC376H5 and CSC413H5

Rationale:

This is a course for our newly hired roboticist Igor Gilitschenski. It is a follow up to CSC375H5.

Consultation:

This course is proposed in consultation with our Robotics professors Igor Gilitschenski, Animesh Garg, and Jessica Burgner-Kahrs (who is also our CS Undergraduate Chair); as well as our department Chair and our MCS Curriculum Subcommittee. There is no consultation outside of our unit as we do not see this course impacting other units.

This proposal was approved by MCS curriculum Committee on April 7th.

Resources:

Resource form submitted.

MAT157H5: Analysis I

Contact Hours:

Lecture: 36 / Tutorial: 24

Description: A rigorous and proof-intensive introduction to the analysis of single variable real-valued functions for students with a serious interest in mathematics. Topics typically include the

construction of the real numbers, the epsilon-delta definition of the limit, continuity, and differentiation.

Prerequisites: [Minimum 70% in Grade 12 Advanced Functions (MHF4U)] and [Minimum 70% in Grade 12 Calculus and Vectors (MCV4U)]

Corequisites: MAT102H5 (strongly recommended in the Fall term for students taking MAT157H5 in their first year).

Exclusions: MAT157Y5 or MAT157Y1 or MATA37H3

Recommended Preparation:

Rationale:

About 5 years ago, we changed two first-year Calculus offerings, MAT134Y5 and MAT135Y5 into two pairs of H courses: MAT132H5+MAT134H5, and MAT135H5+MAT136H5. After years of experience with the change, we have found little to no real downside, but significant upsides for students. For example, students who fail MAT132H5 are students who were likely to fail MAT134Y5 in the past; these students are now able to retake MAT132H5 in the Winter semester and then take MAT134H5 in the Summer in order to 'stay on track'. Those students might attempt to take the double-speed version of MAT134Y5 in the summer to stay on track, resulting in many double-fails. And those that didn't, would be delayed until the following Fall. In any case, failing an H course is less of a blow and something easier to reorganize around, compared to failing a Y course.

Splitting MAT137Y5 and MAT157Y5 will provide similar benefits to students to the splits of MAT134Y5 and MAT135Y5, but will also introduce some new benefits. For example, a student who takes and barely passes MAT157H5 or MAT137H5 might have struggled to pass the Y-version of these courses, but will now have the option to "drop down" to the second semester Calculus course at the level just below (i.e. to the new MAT139H5 or to MAT136H5, respectively). This would offer real relief to a student 'trapped' in MAT137/157 who wishes they could jump down to the 135/137 level.

This could also help us retain students in the MAT Major/Specialist programs, by giving a strong student who is interested in pursuing one of these programs an option to stay in an advanced Calculus course (e.g. dropping from MAT159 to MAT139 or 139 to 136) even if they find the higher level course to be too difficult and then gain a better overall cGPA in the year (e.g. a 60 and a 80 in two H courses, versus a 55 in a single Y course), making program entry more likely.

There could also be a small number of students who do exceptionally well in MAT137H5 or MAT135H5, for example, and will want to 'level up' to MAT139H5 or MAT159H5. While we do not record this as an explicit option in the prerequisites, we would communicate to students that this could be possible with a prerequisite waiver request accompanying a very strong record.

Overall, this change will allow students much more flexibility to get themselves into the right Calculus courses in first-year, and finish the year strong. We will pair this change with an

improved communication strategy to make students aware of their options.

Beyond benefits to students, there are other benefits in terms of departmental resource allocation planning: MAT137Y5 enrollment typically goes down enough from Fall to Winter, such that an LEC section and several TUT sections need to be closed in the Winter, and students shifted around etc. With two half-courses, we should be able to plan better and be more flexible in terms of hiring and assigning TAs and instructors. We would also have more flexibility in re-offering, say, MAT137H5 in the Winter and/or offering MAT139H5 in the Summer.

Regarding the course numberings chosen, we are avoiding "MAT138H5" intentionally to avoid confusion with MAT138H1, which is not a Calculus course. And we wanted the codes for the MAT157 replacement courses (157+159) to match the codes for the MAT137 replacements (137+139) - i.e. both ending in '7' and '9'.

Instructors of all UTM Calculus courses (and indeed all UTM MAT Teaching faculty, as well as faculty from CSC and STA) have been consulted, and the strong consensus was that this was a good change for students.

Note that UTSC has for years had two H courses instead of MAT137Y (and does not offer a course comparable to MAT157Y), while UTSG continues to offer MAT137 and MAT157 as Y courses.

Consultation:

Within MCS with MAT, STA and CSC Faculty Advisors and MAT, CSC Associate Chairs. Discussed 9-Feb-22 & 7-Apr-22.

Resources:

Resource form submitted

2 Course Modifications:

CSC488H5: Compilers and Interpreters

Description: Compiler organization, compiler writing tools, use of regular expressions, finite automata automation and content-free grammars, scanning and parsing, runtime runtime organization, semantic analysis, implementing the runtime model, storage allocation, code generation. ~~{24L, 12P/T}~~

Exclusions:

Previous:

New: CSC488H1

Rationale:

Correcting errors in course description and adding a St. George course with overlapping content to exclusions.

Resources:

None.

MAT133Y5: Calculus and Linear Algebra for Commerce

Description: Mathematics of finance, matrices and linear equations. Review of differential calculus; applications. Integration and fundamental theorem; applications. Introduction to partial differentiation; applications. NOTE: This course cannot be used as the calculus prerequisite for any 200-level MAT or STA course, except in combination with MAT233H5. ~~{80L, 24T}~~

Prerequisites: Minimum 70% in Grade 12 Advanced Functions(MHF4U). ~~Highly Recommended: Minimum 70% in Grade 12 Calculus and Vectors (MCV4U).~~

Exclusions: MAT132H5 or MAT134H5 or MAT135H5 or MAT136H5 or MAT137H5 or MAT139H5 or MAT157H5 or MAT159H5 or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or ~~MAT133Y1 or MAT135Y1~~ or MAT135H1 or MAT136H1 or MAT133Y1 or MAT135Y1 or MAT137Y1 or MAY157Y1 or MATA30H3 or MATA31H3 or MATA32H3 or MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3

Recommended Preparation:

Previous:

New: Highly Recommended: Minimum 70% in Grade 12 Calculus and Vectors (MCV4U).

Enrolment Limits:

This course cannot be used for the specialist or major programs in Mathematics, Statistics or Computer Science, except in combination with MAT233H5. Restricted to students admitted into Management or Commerce.

Rationale:

Updating exclusions to reflect splitting of MAT137Y5 into MAT137H5, MAT139H5 and MAT157Y5 into MAT157H5, MAT159H5. See rationale under Course Proposals for MAT137H5, MAT139H5, MAT157H5, MAT159H5.

Consultation:

Within MCS with MAT, STA and CSC Faculty Advisors and MAT, CSC Associate Chairs. Discussed 9-Feb-22 & 7-Apr-22.

Resources:

None.

8 Minor Program Modifications:

Applied Statistics - Major (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in the Major program is limited to students with a minimum of 4.0 credits, including:

1. STA107H5 ~~or STA256H5~~(with a minimum grade of 60%)~~or STA256H5; ;~~
2. MAT134H5 or MAT136H5 ~~or MAT139H5 or MAT159H5~~ or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or MAT233H5; and
3. A minimum cumulative grade point average, to be determined annually.
4. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

Completion Requirements:

7.0-7.5 credits are required.

First Year:

1. CSC108H5
2. MAT102H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) ~~or (MAT137H5 and MAT139H5)~~ ~~or (MAT157H5 and MAT159H5)~~ or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
4. MAT223H5 or MAT240H5

Second Year:

1. MAT232H5 or MAT233H5 or MAT257Y5
2. STA256H5 and STA258H5 and STA260H5

Higher Years:

1. STA302H5 and STA304H5 and STA305H5
2. 1.0 ~~STA~~ credit ~~from any at the~~ 300/400 level ~~STA course~~ or CSC322H5 or (CSC311H5 or CSC411H5) or MAT302H5 or MAT311H5 or MAT332H5 or MAT334H5 or MAT344H5 or (MAT337H5 or MAT378H5)

NOTES:

1. MAT133Y5 is included in the credit count only if the student also completes MAT233H5 (in which case MAT232H5 is not required).
2. ECO220Y5 cannot be substituted for STA256H5 or STA258H5 and/or STA260H5.
3. ECO227Y5 can be substituted for STA256H5 and STA258H5, but not for STA260H5.
4. STA107H5 is highly recommended in first year, but it is not required.
5. MAT337H5 or MAT378H5 is highly recommended for students intending to pursue graduate level studies in statistics.
6. ~~STA246H5 will not be permitted as a pre-requisite for any other 200+ level STA courses. In addition, STA246H5 cannot be used towards any program (s) in Applied Statistics or Mathematics. The course is intended only for students in Computer Science programs who will not need STA256H5 for other program requirements.~~

Rationale:

1. Entry/program requirement change: to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5). see brief description and/or rationale for 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5). Change in min grade for STA107H5 because STA256H5 is more difficult than 107h5.

2. Additional comment added to program notes to ensure that MCS students know which STA course they should take: STA246H5 or STA256H5. Consistent with new language proposed at end of course description for STA246H5, we are adding program note to advise students that this course is not appropriate for Applied Statistics and Math programs. Want to ensure this messaging appears in more than one place.

Consultation:

Within MCS with MAT, STA and CSC Faculty Advisors and MAT, CSC Associate Chairs. Discussed 9-Feb-22 & 7-Apr-22.

Resource Implications:

None.

Applied Statistics - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in the Specialist program is limited to students with a minimum of 4.0 credits, including:

1. STA107H5 ~~or STA256H5~~ (with a minimum grade of 60%) ~~or STA256H5~~; ;
2. ~~A MAT137Y5 or MAT157Y5 or MAT134H5~~ (minimum 60% grade in ~~MAT134H5~~) or MAT136H5 or MAT134Y5 or MAT135Y5 ~~or MAT137Y5 or MAT139H5 or MAT233H5 or a~~ (minimum 50% in ~~MAT157Y5 or MAT159H5~~; ~~55%~~); ~~and~~
3. A minimum cumulative grade point average, to be determined annually.
4. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

Completion Requirements:

12.0-12.5 credits are required.

First Year:

1. CSC108H5
2. MAT102H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) ~~or (MAT137H5 and MAT139H5)~~ ~~or (MAT157H5 and MAT159H5)~~ or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
4. MAT223H5 or MAT240H5

Second Year:

1. MAT232H5 or MAT233H5 or MAT257Y5
2. MAT244H5
3. STA256H5 and STA258H5 and STA260H5

Higher Years:

1. STA302H5 and STA304H5 and STA305H5 and STA348H5
2. 2.0 STA credits of STA at the 300/400 level STA course
3. 2.0 credits from CSC322H5 or (CSC311H5 or CSC411H5) or MAT302H5 or MAT311H5 or MAT332H5 or MAT334H5 or MAT344H5 or (MAT337H5 or MAT378H5)
4. 1.0 STA credit of STA

NOTES:

1. MAT133Y5 is included in the credit count only if the student also completes MAT233H5 (in which case MAT232H5 is not required).
2. ECO220Y5 cannot be substituted for STA256H5 or STA258H5 or STA260H5.
3. ECO227Y5 can be substituted for STA256H5 and STA258H5, but not for STA260H5.
4. STA107H5 is highly recommended in first year, but it is not required.
5. MAT337H5 or MAT378H5 is highly recommend for students intending to pursue graduate level studies in statistics.
6. STA246H5 will not be permitted as a pre-requisite for any other 200+ level STA courses. In addition, STA246H5 cannot be used towards any program (s) in Applied Statistics or Mathematics. The course is intended only for students in Computer Science programs who will not need STA256H5 for other program requirements.

Rationale:

1. Entry/program requirement change: to reflect splitting MAT137Y5 and MAT157Y5 into 2 H courses each. MAT137Y5 becomes MAT137H5 + MAT139H5, and MAT157Y5 becomes MAT157H5 + MAT159H5. see brief description and/or rationale for 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5). Change in min grade for STA107H5 because STA256H5 is more difficult than 107h5.

2. Additional comment added to program notes to ensure that MCS students know which STA course they should take: STA246H5 or STA256H5. Consistent with new language proposed at end of course description for STA246H5, we are adding program note to advise students that this course is not appropriate for Applied Statistics and Math programs. Want to ensure this messaging appears in more than one place.

Consultation:

Within MCS with MAT, STA and CSC Faculty Advisors and MAT, CSC Associate Chairs. Discussed 9-Feb-22 & 7-Apr-22.

Resource Implications:

None.

Computer Science - Major (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited to students with a minimum of 4.0 credits, including the following:

1. CSC148H5(see minimum grade note below)
2. MAT102H5 (see minimum grade note below)
3. MAT134H5 or MAT136H5 or MAT139H5 or MAT159H5 or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or MAT233H5
4. ISP100H5
5. A cumulative grade point average (CGPA), determined annually. It is never lower than 2.5.
6. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

NOTES:

1. The minimum grade required in CSC148H5 and MAT102H5 is determined annually. It is never lower than 60%. Only CSC148H5 and MAT102H5, taken at the UTM campus, will be accepted.
2. Transfer students who have completed any postsecondary studies outside of UTM (including studies at other divisions at the University of Toronto) are not eligible to pursue a Specialist and/or Major in Computer Science at U of T Mississauga.
3. Due to the limited enrolment nature of this program, students are strongly advised to develop alternate plans if they need to instead enroll in other programs.

The Computer Science Major is a deregulated fees program and as such, tuition fees for students enrolled in this program are higher than for other regulated fee programs. Fees are charged on a program and not a per-course basis. See www.fees.utoronto.ca for more information on the fee structures.

Completion Requirements:

7.5-8.0 credits are required.

First Year:

1. CSC108H5 and CSC148H5 and ISP100H5
2. MAT102H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or MAT233H5

Second Year:

1. CSC207H5 and CSC236H5
2. 1.0 credit from the following CSC209H5 or CSC258H5 or CSC263H5
3. MAT223H5 or MAT240H5
4. STA246H5 or STA256H5 or ECO227Y5

Higher Years:

2.0 credits from ~~the following~~: any 300/400 level CSC course (~~offered at UTM~~) or GGR335H5 or GGR337H5 or GGR437H5. At least 0.5 credit must come from 400-level courses, and no more than 0.5 credit of GGR courses may count to this requirement.

NOTE: In addition to the course requirements above, students must complete an integrative learning experience. This requirement may be met taking at least one of the following half-courses: CSC318H5 or CSC367H5 or CSC375H5 or CSC409H5 or CSC420H5 or CSC427H5 or CSC477H5 or CSC490H5.

Rationale:

1. We always accept UTSG and UTSC courses to meet our program requirements. We would like to have it removed to avoid student confusion.
2. ECO227Y5 can be substituted for STA256H5 or STA246H5
3. Entry/program requirement change to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).
4. Advised to develop alternative plans in case they are not able to meet the enrolment requirements of the program.

Resource Implications:

none.

Computer Science - Minor (Science)

Completion Requirements:

4.0 credits are required.

First Year: CSC108H5 and CSC148H5 and MAT102H5

Second Year:

1. CSC207H5 and CSC236H5
2. One of CSC209H5 or CSC258H5 or CSC263H5

Third and Fourth Years: 1.0 credit from any of UTM CSC at the 300/400 level CSC course (~~400-level~~), except for CSC392H5 and CSC393H5 and CSC492H5 and CSC493H5) or GGR335H5 or GGR337H5 or GGR437H5. No more than 0.5 credit of GGR courses may count to this requirement.

NOTES:

1. Students in the CSC minor are limited to ~~may only complete~~ 1.5 credits of ~~third and fourth year~~ computer science courses at the 300/400-level. ~~Enrolment~~ ~~To enrol~~ in additional CSC ~~upper year~~ courses is restricted to students in; ~~a student must enter a~~ CSC specialist ~~and or~~ major programs ~~program~~.
2. Only CSC148H5 and MAT102H5, taken at the UTM campus, will be accepted.

Rationale:

1. We always accept UTSG and UTSC courses to meet our program requirements. We would like to have it removed to avoid student confusion.
2. We accept these courses (GGR335H5, GGR337H5 or GGR437H5) to meet CS major or specialist requirements. We would like to accept 0.5 of them to meet the CS minor program as well.
3. CSC392H5 and CSC393H5 are reading courses, they should be excluded.
4. We need to strictly enforce the 1.5 credits maximum for minors (or non-CS students) with the growing student numbers.

Resource Implications:

None.

Computer Science - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited to students with a minimum of 4.0 credits, including the following:

1. CSC148H5 (see minimum grade note below)
2. MAT102H5 (see minimum grade note below)
3. MAT134H5 or MAT136H5 or MAT139H5 or MAT159H5 or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or MAT233H5
4. ISP100H5
5. A cumulative grade point average (CGPA), determined annually. It is never lower than 2.5.
6. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

NOTES:

1. The minimum grade required in CSC148H5 and MAT102H5 is determined annually. It is never lower than 65%. Only CSC148H5 and MAT102H5, taken at the UTM campus, will be accepted.
2. Transfer students who have completed any postsecondary studies outside of UTM (including studies at other divisions at the University of Toronto) are not eligible to pursue a Specialist and/or Major in Computer Science at U of T Mississauga.
3. Due to the limited enrolment nature of this program, students are strongly advised to develop alternate plans if they need to instead enroll in other programs.

The Computer Science Specialist is a deregulated fees program and as such, tuition fees for students enrolled in this program are higher than for other regulated fee programs. Fees are charged on a program and not a per-course basis. See www.fees.utoronto.ca for more information on the fee structures.

Completion Requirements:

12.0-13.0 ~~11.5-12.5~~ credits are required.

First Year:

1. CSC108H5 and CSC148H5 and ISP100H5

2. MAT102H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or ~~MAT233H5~~

Second Year:

1. CSC207H5 and CSC209H5 and CSC236H5 and CSC258H5 and CSC263H5
2. MAT223H5 or MAT240H5
3. MAT232H5 or MAT233H5 or MAT257Y5
4. STA246H5 or STA256H5 or ECO227Y5

Higher Years:

1. CSC311H5 and CSC343H5 and CSC363H5 and CSC369H5 and CSC373H5
2. CSC358H5 or CSC458H5
3. 2.0 ~~2.5~~ credits from ~~the following:~~ any 300/400 level CSC course (~~offered at UTM~~) or GGR335H5 or GGR337H5 or GGR437H5. At least 1.0 credit must come from 400-level courses, and no more than 1.0 credit of GGR courses may count to this requirement.

NOTE: In addition to the course requirements above, students must complete an integrative learning experience. This requirement may be met by taking at least one of the following half-courses: CSC318H5 or CSC367H5 or CSC375H5 or CSC409H5 or CSC420H5 or CSC427H5 or CSC477H5 or CSC490H5.

Rationale:

1. We always accept UTSG and UTSC courses to meet our program requirements. We would like to have it removed to avoid student confusion.
2. ECO227Y5 can be substituted for STA256H5 or STA246H5
3. Entry/program requirement change to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).
4. The proposed curricular change involves making CSC311H5, the Introduction to Machine Learning course, a requirement for the CS Specialist Post. The intent is to align ourselves with what we expect our graduating students with a CS Specialist designation should know in this era of computing. While this course was not required so far in the CS Specialist, in recent years we have experienced the pervasive nature and the rise in the use of Machine Learning techniques in a variety of computational domains. As such, we anticipate that a well-rounded graduate with the CS Specialist designation should gain some exposure to machine learning and the corresponding computational thinking skills. Currently, a large segment of our student population is taking this course already, with some taking even more advanced follow-up courses in the area of Machine Learning. Therefore, adding the introductory machine learning course (CSC311H5) as a requirement for the CS Specialist is both a necessary and a natural step forward.
5. Advised to develop alternative plans in case they are not able to meet the enrolment requirements of the program.

Resource Implications:

None.

Information Security - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in this program is limited to students with a minimum of 4.0 credits, including the following:

1. CSC148H5(see minimum grade note below);
2. MAT102H5 (see minimum grade note below) ;
3. MAT134H5 or MAT136H5 or MAT139H5 or MAT159H5 or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5 or MAT233H5;
4. ISP100H5; and
5. A cumulative grade point average (CGPA), determined annually. It is never lower than 2.5.
6. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

NOTES:

1. The minimum grade required in CSC148H5 and MAT102H5 is determined annually. It is never lower than 65%. Only CSC148H5 and MAT102H5, taken at the UTM campus, will be accepted.
2. Transfer students who have completed any postsecondary studies outside of UTM (including studies at other divisions at the University of Toronto) are not eligible to pursue a Specialist and/or Major in Computer Science at U of T Mississauga.
3. Due to the limited enrolment nature of this program, students are strongly advised to develop alternate plans if they need to instead enroll in other programs.

The Information Security Specialist is a deregulated fees program and as such, tuition fees for students enrolled in this program are higher than for other regulated fee programs. Fees are charged on a program and not a per course basis. See www.fees.utoronto.ca for more information on the fee structures.

Completion Requirements:

12.5-13.0 credits are required.

First Year:

1. CSC108H5 and CSC148H5 and ISP100H5
2. MAT102H5
3. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
4. MAT223H5 or MAT240H5

Second Year:

1. CSC207H5 and CSC209H5 and CSC236H5 and CSC258H5 and CSC263H5
2. MAT224H5 or MAT240H5
3. MAT232H5 or MAT257Y
4. STA246H5 or STA256H5 or ECO227Y5

Third Year:

1. CSC343H5 and CSC347H5 and CSC363H5 and CSC369H5 and CSC373H5

2. MAT301H5 and MAT302H5

Fourth Year:

1. CSC358H5 or CSC458H5
2. 1.0 credit from the following: CSC422H5 or CSC423H5 or CSC427H5 or CSC490H5

NOTES: In addition to the course requirements above, students must complete an integrative learning experience. This requirement may be met by taking at least one of the following half-courses: CSC318H5 or CSC367H5 or CSC375H5 or CSC409H5 or CSC420H5 or CSC427H5 or CSC477H5 or CSC490H5.

Rationale:

1. ECO227Y5 can be substituted for STA256H5 or STA246H5
2. Entry/program requirement change to reflect retirement of MAT137Y5 and MAT157Y5, and introduction of 4 new 100-level MAT courses (MAT137H5, MAT139H5, MAT157H5, MAT159H5).
3. Advised to develop alternative plans in case they are not able to meet the enrolment requirements of the program.

Resource Implications:

None.

Mathematical Sciences - Major (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in the Major program is limited to students with a minimum of 4.0 credits, including:

1. MAT102H5 (minimum 60%);
2. A minimum 60% grade in MAT134H5 or MAT136H5 or MAT139H5 or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT233H5 or a minimum 50% in MAT159H5 or MAT137Y5 or MAT157Y5; and
3. A minimum cumulative grade point average (CGPA), to be determined annually.
4. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

Completion Requirements:

8.0 credits are required.

First Year:

1. MAT102H5
2. (MAT132H5 and MAT134H5) or (MAT135H5 and MAT136H5) or (MAT137H5 and MAT139H5) or (MAT157H5 and MAT159H5) or MAT134Y5 or MAT135Y5 or MAT137Y5 or MAT157Y5
3. MAT223H5 or MAT240H5

Second Year:

1. MAT202H5 and MAT244H5

2. [(MAT232H5 or MAT233H5) and MAT236H5] or MAT257Y5
3. MAT224H5 or MAT247H5

Higher Years:

1. MAT301H5 and (MAT334H5 or MAT354H5)
2. MAT337H5 or MAT378H5 or MAT392H5 or MAT405H5
3. MAT305H5 or MAT311H5 or MAT332H5
4. MAT302H5 or MAT315H5 or MAT344H5
5. STA256H5 or 0.5 credit of MAT at the 300/400 level, except MAT322H5
6. 0.5 additional credits in MAT at the 400 level

NOTES:

1. MAT137H5 and MAT139H5 are MAT137Y5 is highly recommended.
2. Mathematical Majors are strongly encouraged to enroll in MAT240H5 followed by MAT247H5.
3. Students enrolled in this program may participate in the PEY program. For more information visit www.pey.utoronto.ca

Rationale:

Entry requirement & program requirement update to reflect splitting MAT137Y5 and MAT157Y5 into 2 H courses each. MAT137Y5 becomes MAT137H5 + MAT139H5, and MAT157Y5 becomes MAT157H5 + MAT159H5. See rationale under Course Proposals for MAT137H5, MAT139H5, MAT157H5, MAT159H5.

Resource Implications:

Resource form submitted.

Mathematical Sciences - Specialist (Science)

Enrolment Requirements:

Limited Enrolment — Enrolment in the Specialist program is limited to students with a minimum of 4.0 credits, including:

1. MAT102H5 (minimum 65%);
2. MAT137Y5 or MAT139H5 (minimum 60%) or MAT157Y5 or MAT159H5; ~~MAT157Y5~~; and
3. A minimum cumulative grade point average (CGPA), to be determined annually.
4. All students must complete 4.0 U of T credits before requesting this program. Courses with a grade of CR/NCR will not count as a part of the 4.0 credits required for program entry.

Completion Requirements:

13.5 credits are required.

First Year:

1. CSC108H5 and CSC148H5
2. MAT102H5 and MAT240H5

3. [MAT137Y5 or (MAT137H5 and MAT139H5)] or [MAT157Y5 or (MAT157H5 and MAT159H5)]

Second Year:

1. CSC236H5
2. MAT202H5 and MAT244H5 and MAT247H5 and MAT257Y5
3. STA256H5 and (STA258H5 or STA260H5)

Higher Years:

1. MAT301H5 and (MAT334H5 or MAT354H5) and MAT392H5
2. MAT302H5 or MAT315H5
3. 2.0 additional credit from MAT302H5 or MAT309H5 or MAT311H5 or MAT315H5 or MAT332H5 or (MAT337H5 or MAT378H5) or MAT344H5
4. 1.0 additional credits in MAT at the 400 level (MAT401H5 is recommended)
5. 1.0 additional credits at the 300/400 level in CSC or MAT/STA, except MAT322H5
6. **0.5 additional credits in MAT at the 300+level, except MAT322H5**

NOTES:

1. Mathematical Science Specialists are strongly encouraged to enroll in MAT157H5, MAT159H5, MAT157Y5 and MAT257Y5, and MAT354H5.
2. Students may replace MAT257Y5 with [(MAT232H5 or MAT233H5) and MAT236H5], but if they do then MAT337H5 AND MAT405H5 are required as part of “Higher Years”.
3. Students who do not feel ready for MAT257Y5 in their Second Year, may wish to take MAT232H5 that year, and then take MAT257Y5 in their Third Year.
4. Students enrolled in this program may participate in the PEY program. For more information visit www.pey.utoronto.ca

Rationale:

Entry requirement & program requirement update to reflect splitting MAT137Y5 and MAT157Y5 into 2 H courses each. MAT137Y5 becomes MAT137H5 + MAT139H5, and MAT157Y5 becomes MAT157H5 + MAT159H5. See rationale under Course Proposals for MAT137H5, MAT139H5, MAT157H5, MAT159H5.

Resource Implications:

Resource form submitted.

Study of University Pedagogy (UTM), Institute for the

3 New Courses:

ISP251H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None

ISP351H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may

satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None

ISP451H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:**Rationale:**

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None.



UNIVERSITY OF TORONTO

University of Toronto Mississauga

SSC Curriculum Proposals Report

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Anthropology (UTM), Department of

3 Minor Program Modifications:

Anthropology - Major (Arts)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is limited. To qualify, students must have completed 4.0 credits and achieved a **minimum grade GPA of 63% at least 2.0** in **each of** ANT101H5 and ANT102H5 and ISP100H5. Students applying to enrol after second year must have completed 8.0 credits (including ANT101H5 and ANT102H5 and ISP100H5), and achieved a **minimum average GPA of 63% at least 2.0** in **all** ANT courses **(including JAL and HSC courses) as well as** ISP100H5.

Rationale:

Students are confused and unclear about what is meant by GPA so we replaced it with a percentage %. We removed the text about JAL and HSC courses since many do not have these courses before they request enrollment into our Major/Specialist programs. In fact, we need to remove any references to HSC courses since in last fall's curriculum meeting the dept of biology mentioned that they give priority to their bio students and there is normally a long waiting list. The section where it states: "... GPA of at least 2.0 in all ANT courses ..." is especially confusing because student think they need to have a GPA (i.e. 62% or higher) in every ANT course they took and not the "average" of the ANT courses that they took.

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resource Implications:

None.

Anthropology - Minor (Arts)

Completion Requirements:

4.0 credits are required.

First Year: ANT101H5 and ANT102H5

Second Year: 1.5 credits from ANT200H5 or ANT201H5 or ANT202H5 or ANT203H5 or ANT204H5 or ANT206H5 or ANT207H5 or ANT220H5

Higher Years: 1.5 additional ANT credits. At least 1.0 must be at the 300/400 level.

NOTES Notes:

1. Please be aware of the upper year prerequisite requirements when choosing your second-year courses for the minor. Students must have completed all published prerequisites in order to enrol in 300 and 400 level Anthropology courses. Students without prerequisites can be removed at any time. No waivers will be granted.
2. JAL253H5 and ~~JAL353H5~~ and JAL355H5 are ~~counted as ANT~~ social science credits and can be used to fulfill ANT program requirements.

Rationale:

There is no need to mention that pre-reqs are needed for upper year courses (as mentioned in the Feb meeting). This is a known fact and therefore already globally published elsewhere in the Academic Calendar, so we are removing this sentence.

Revising the text under the 2nd Notes to match the same wording as the Major and Specialist programs in Anthropology (Arts).

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resource Implications:

None.

Anthropology - Specialist (Arts)

Enrolment Requirements:

Limited Enrolment – Enrolment in this program is limited. To qualify, students must have completed 4.0 credits and achieved a minimum grade GPA of 63% at least 2.0 in each of ANT101H5 and ANT102H5 and ISP100H5. Students applying to enrol after second year must have completed 8.0 credits (including ANT101H5 and ANT102H5 and ISP100H5), and achieved a minimum average GPA of 63% at least 2.0 in all ANT courses (including JAL and HSC courses) as well as ISP100H5.

Rationale:

Students are confused and unclear about what is meant by GPA so we replaced it with a percentage %. We removed the text about JAL and HSC courses since many do not have these courses before they request enrollment into our Major/Specialist programs. In fact, we need to remove any references to HSC courses since in last fall's curriculum meeting the dept of biology mentioned that they give priority to their bio students and there is normally a long waiting list. The section where it states: "... GPA of at least 2.0 in all ANT courses ..." is especially confusing because student think they need to have a GPA (i.e. 62% or higher) in every ANT course they took and not the "average" of the ANT courses that they took.

Consultation:

The Anthropology Curriculum Committee members consulted with the Anthropology department faculty members.

Resource Implications: None.

6 Course Modifications:

CCT270H5: Principles in Game Design

Description:

Previous: An overview of videogame theory, best practices, emergent trends and technology, with strong participation by industry professionals . This course features a variety of guest speakers addressing different facets of game design, supported by later discussion and analysis. Students will experience a broad overview of principles in game design that may inspire further development and design activities in related game design courses .

New: This course will address the principles and methodologies behind the rules and play of games . It will foster a solid understanding of how games function to create experiences, including rule design, play mechanics, game balancing and the integration of visual, tactile, audio, and textual components into games.

Prerequisites: CCT109H5 and (CCT110H5 or ENG110H5)

Rationale:

Update to course description reflects how the course will be offered, as an introduction to games studies and design and as the main prerequisite to all further CCT games courses. This course is also slated to service a potential Game Studies minor program that is in discussions and development. ENG110H5 also covers the same range of scholarly skills as CCT110H5 does.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None

CCT285H5: Immersive Environment Design

Prerequisites: CCT109H5 and (CCT110H5 or ENG110H5)

Rationale:

Course updates will help support a potential new Game Studies minor program currently in discussion and development. ENG110H5 also covers the same range of scholarly skills as CCT110H5 does.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None.

CCT286H5: Interactive Media Design

Prerequisites: CCT109H5 and (CCT110H5 or ENG110H5) and CCT285H5

Rationale:

Changes to course to support a potential new Game Studies minor program that is currently in discussions and development.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None.

CCT311H5: Game Design and Theory

Description: (Offered at Sheridan College) This course provides an introduction to games studies. It reviews ~~will address~~ the history of games, from board ~~principles~~ and card games through to ~~methodologies behind~~ the latest digital ~~rules and play of~~ games. It enables students to understand the medium ~~The lectures and practical work will foster a solid understanding of~~ ~~how~~ games through various lenses such as critical theory and ethnography. Students are introduced ~~function~~ to the concepts of game narrative ~~create experiences, including rule design,~~ the influence of technology in digital games ~~play mechanics, game balancing~~ and the emergence ~~integration~~ of game paradigms such as casual games ~~visual~~, serious games ~~tactile~~, game 'modding', ~~audio~~ and subversive play ~~textual components into games.~~

Prerequisites: CCT270H5

Rationale:

Update to offering campus and description reflects how the course will now be a UTM-based course taught by UTM faculty, in line with the decision to make the CCIT Major and DEM Specialist solely UTM programs (i.e. no longer joint with Sheridan College). This course will also be the first upper-level introduction to games studies as a discipline.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None.

CCT428H5: Project Management

New Course Code: CCT328H5

Prerequisites:

Previous: 8.0 credits, including CCT112H5

New: A minimum of 8.0 credits.

Exclusions:

Previous:

New: MGD428H5

Rationale:

We propose the following updates: (i) the course code, (ii) level that the course is offered (iii) prerequisites (iv) exclusion.

The course was originally developed for students in our DEM stream, over the past five years, we believe the course would be valuable for all ICCIT students. We propose to change the course code from MGD428H5 to CCT328H5. The MGD designation is no longer necessary in part because the instructor is developing a project management course for management students and the MGD designation signals that the course may be restricted only to students in the DEM program.

The instructor approaches the topic as an introduction to project management and recognizes that students may benefit from project management training prior to their fourth year.

To facilitate the enrolment of non-DEM and third year students, we have updated the prerequisites and added MGD428H5 as the exclusion.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None.

CCT419H5: User Experience Design - UXD and Board Games

Prerequisites:

Previous: A minimum of 8.0 credits including CCT210H5 or CCT218H5 or CCT270H5 or CCT380H5 or CCT382H5.

New: A minimum of 13.0 credits.

Rationale:

Update to prerequisites to remove unnecessary prerequisites and to support a potential new Game Studies minor (currently in development).

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resources:

None.

7 Retired Courses:

CCT315H5: Theory of Linguistic Communication

Rationale:

Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

CCT326H5: Communication across the Lifespan

Rationale:

No faculty interest. Not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

CCT376H5: Introduction to Modelling Information

Rationale:

Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

CCT385H5: Conceptualizing Media Environments

Rationale:

Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

CCT441H5: Online Collaborative Project Management

Rationale:

Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

MGD420H5: Global Digital Industries

Rationale:

No faculty interest. Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

MGD430H5: Knowledge Management and Strategy

Rationale:

No faculty interest. Course not offered for the past five years.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

3 Minor Program Modifications:

CCIT - Major (Arts)

Completion Requirements:

8.0 credits are required including at least 4.0 at the 300/400 level. Program must be taken in combination with another major or two minors.

First Year: (1.0 credit required)

CCT109H5 and CCT110H5

Second Year: (3.0 credits required)

1. CCT204H5 and CCT208H5 and CCT218H5
2. 0.5 credit from CCT200H5 or CCT206H5 or CCT210H5 or CCT222H5
3. 0.5 credit from CCT205H5 or CCT212H5 or CCT260H5
4. 0.5 credit from any 200-level CCT course

Higher Years: (4.0 credits required)

Minimum of 4.0 credits at UTM from any 300/400 level CCT/VCC course, of which **1.0** ~~0.5~~ credit must be at the 400 level.

NOTES:

1. 300/400-level CCT courses are restricted to students in CCIT programs only.
2. **Students may take a maximum of 2.0 credits of VCC courses.**
3. Students accepted into the CCT major prior to 2022 are still eligible to complete the Sheridan Certificate until 2024.

Description of Proposed Changes:

- Updating the number of 400-level credits required and the maximum number of VCC credits student may take in higher years.

Rationale:

The update ensures that students are taking adequate CCT courses rather than taking all upper year courses in VCC. Additionally, the update aligns with the CCIT major program requirements prior to the Sheridan migration when students required 2 credits of CCT/VCC at the 300/400 level taught at UTM.

Consultation:

Discussed and approved by the VCC program Director and ICCIT Curriculum Committee.

Resource Implications:

None.

Digital Enterprise Management - Specialist (Arts)

Completion Requirements:

13.5 credits are required.

First Year: CCT109H5 and CCT110H5 and CCT112H5

Second Year:

• CCT203H5 and CCT206H5 and CCT219H5 and CCT221H5 and CCT224H5 and CCT225H5 and CCT261H5

Higher Years:

1. CCT321H5 and CCT324H5 and (CCT328H5 or MGD428H5) and (CCT325H5 or MGD425H5) and CCT354H5 and CCT355H5 and CCT361H5
2. CCT424H5 and CCT461H5 and MGD421H5 and MGD426H5 and MGD428H5
3. 1.0 credit from CCT401H5 or CCT410H5 or CCT476H5 or MGD415H5 or MGD425H5 or MGD427H5.
4. 2.0 credits of CCT or MGD at the 300- or 400-level. Cannot include any courses already used above.

Notes:

1. Students cannot combine the Digital Enterprise Management Specialist Program with the CCIT Major program, the TCS Major program, or the Management Major Program, or the Commerce Major program.
2. Students are encouraged to review CCT 300 and 400 level elective courses in advance, and take necessary 200 level CCT courses to meet prerequisites in higher years.
3. Student who cannot complete CCT219H5, due to exclusion with ECO100Y5 or ECO101H5 or ECO102H5, will need to take any 0.5 credit from any 200/300-level CCT course or 400-level MGD course in its place.

Description of Proposed Changes:

We propose changes to (i) the course code and(ii) year that the course is offered.

Rationale:

We propose to change the course code from MGD428 to CCT328. The MGD designation is no longer necessary in part because the instructor is developing a project management course for management students and the MGD designation signals that the course may be restricted only to students in the DEM program.

The instructor approaches the topic as an introduction to project management and recognizes that students may benefit from project management training prior to their fourth year.

Consultation:

Discussed and approved by the ICCIT Curriculum Committee, April 2022.

Resource Implications:

None

Professional Experience Certificate in Digital Media, Communication and Technology

Description:

The Professional Experience Certificate in Digital Media, Communication and Technology program provides eligible students the opportunity to integrate ~~two paid~~ work placements into their ICCIT program of study. The certificate offers students authentic learning experiences outside the classroom that involve the application of skills and concepts learned in the classroom through a ~~12-16 week~~ ~~two 4-month~~ non-credit paid work ~~term and a course-based internship terms~~. This certificate program must be taken in addition to any of the current ICCIT programs.

Students enrolled in the certificate program also complete two professional practice courses in class(1.0 credit), CCT273H5 Professional Practice and Communication, and CCT373H5 Career Planning and Development, ~~and a 400 level capstone thesis course, CCT475H5 Integrated Learning in Digital Media, Communication, as well as and Technology~~ (0.5 credit from CCT409H5 Special Topics in Work-Based Learning or CCT410H5 CCIT Internship I or WRI410H5 Internship I) that count toward their program requirements.

Students will be eligible to apply for this certificate program at the end of their second year of study. Requests to enrol in this certificate program subject post will be assessed through the same process and timelines used for all other UTM subject post requests (i.e. requests for subject posts are made in the Spring and Summer terms via Acorn with notification of acceptance/invitations made available in the late Summer and/or early Fall).

Students will be awarded the certificate via a transcript notation upon successful completion of the four required courses and ~~one 12-16 week full-time~~ ~~a minimum of two 4-month~~ work placement ~~placements~~.

Enrolment Requirements:

Limited Enrolment: Enrolment in the Certificate Program in ICCIT is limited to students who have met the following criteria:

1. Concurrently enrolled in one of the following ICCIT programs:
 - Communication, Culture, Information and Technology (CCIT)Major;
 - Professional Writing & Communication (PWC) Major;
 - Digital Enterprise Management (DEM) **Specialist**;
 - **Technology, Coding and Society (TCS) Major Specialist**.
2. Have completed CCT110H5 Rhetoric and Media or WRI173H5 Creative Non-Fiction or WRI203H5 Expressive Writing.
3. Have completed CCT273H5 Professional Practice and Communication with a minimum course grade of 70%.
4. Have achieved an overall minimum CGPA of ~~2.5~~ ~~2.4~~. The CGPA requirement for entry will be set each year in relation to the number of applicants, with the minimum being ~~2.5~~ ~~2.4~~.

Completion Requirements:

2.0 credits and ~~one 12-16 week full-time~~ ~~a minimum of 2 (two) four-month~~ work placement ~~placements are required~~.

Required courses:

1. CCT110H5 or WRI173H5 or WRI203H5
2. CCT273H5 and CCT373H5
3. CCT409H5 or CCT410H5 or WRI410H5 ~~CCT475H5~~

Description of Proposed Changes:

- Updating learning experiences required outside and inside the classroom.
- Adding TCS Major (new program) to Limited enrolment list.
- Updating the list of required courses.

Rationale:

Students are not completing the second work placement as they want to graduate on time. The revisions maintain the integrity of the program learning outcomes, and enable the student to have two work experiences. The course-based internships as capstone provide opportunities for students to reflect on their work experiences and identify their transferable skills.

Consultation:

Approved by the ICCIT Curriculum Committee April 2022.

Resource Implications:

None

Economics (UTM), Department of

6 Course Modifications:

ECO101H5: Principles of Microeconomics

Contact Hours:

Previous: *Lecture: 24 / Tutorial: 12*

New: *Lecture: 26 / Tutorial: 12*

Rationale:

Addition of 2 LEC hours, to reflect actual practice with assessments.

Resources:

No additional resources.

ECO102H5: Principles of Macroeconomics

Contact Hours:

Previous: *Lecture: 24 / Tutorial: 12*

New: *Lecture: 26 / Tutorial: 12*

Rationale:

Addition of 2 LEC hours, to reflect actual practice with assessments.

Resources:

No additional resources.

ECO202Y5: Macroeconomic Theory and Policy

Contact Hours:

Previous: *Lecture: 48 / Tutorial: 24*

New: *Lecture: 52 / Tutorial: 24*

Rationale:

Addition of 4 LEC hours, to reflect actual practice.

Resources:

No additional resources.

ECO204Y5: Microeconomic Theory and Applications (for Commerce)

Contact Hours:

Previous: *Lecture: 48 / Tutorial: 24*

New: Lecture: 52 / Tutorial: 24

Description: The course uses microeconomics to analyze a variety of issues from marketing and finance to organizational structure. Topics include consumer preferences and behaviour; demand, cost analysis and estimation; allocation of inputs, pricing and firm behaviour under perfect and imperfect competition; game theory and public policy, including competition policy. Business cases are used to connect theory and practice and to highlight differences and similarities between economics and accounting, marketing and finance. **This course is restricted to students in the B.Com. program.**

Rationale:

Addition of 4 LEC hours, to reflect actual practice with assessments.

Resources:

No additional resources

ECO220Y5: Introduction to Data Analysis and Applied Econometrics

Contact Hours:

Previous: Lecture: 48 / Practical: 24

New: Lecture: 52 / Practical: 24

Exclusions: ECO220Y1 or BIO360H5 or BIO361H5 or (MAT123H1 and MAT124H1) or (PSY201H5 and PSY202H5) or [1.0 credit from (STA218H5 or MGT218H5) or STA220H5 or STA221H5 or STA256H5 or STA258H5 or STA260H5]

Rationale:

Added exclusion MGT218H5 - required due to renaming of "STA218H5" to "MGT218H5".
Addition of 4 LEC hours, to reflect actual practice with assessments.

Resources:

No additional resources.

ECO312H5: Firms and Markets

Exclusions: ECO310Y5 or ECO380H5 or ECO380H1

Rationale:

Added exclusion ECO380H1.

Resources:

No additional resources.

Geography, Geomatics and Environment (UTM), Department of

2 Course Modifications:

GGR319H5: Landscapes of Belonging

Description: Grounded in human geography and qualitative methods, this course investigates the meaningful non-tangible relationships between humankind and environment. These relationships include emotional attachment(to place), aesthetics (of landscape), ethics (of environment), and relationships (to place and to other species). We will examine these ideas through exploration of the geohumanities; ways of seeing or apprehending the world; ways of being in place; ways of translating or reproducing the world; and possible paths forward in the relationship between us and the landscapes around us. **This course fulfills 1 field day.**

Rationale:

this course requires students to actively engage with a variety of landscapes using visual arts and written reflections. These assignments require students to be in the field and thus fulfill one field day requirement.

Resources:

None

GGR387H5: Food and Globalization

Exclusions:

Previous: GGR329H1 or GGRC29H3

New:

Rationale:

After careful review of the exclusions listed (GGR329H1 & GGRC29H3), it is confirmed that there is no overlap in course content.

Resources:

none

Management (UTM), Department of

1 Course Modification:

MGT232H5: Business Finance II

Exclusions: MGT339H5 or CCT321H5 or ECO359H5 or ECO359H1 or RSM333H1 or MGFC10H3

Rationale:

ECO359H1 is considered equivalent to ECO359H5 by the UTM Economics Department. ECO359H5 is an exclusion to MGT232H5. Therefore, ECO359H1 should also be listed as an exclusion to MGT232H5 due to the course material being too similar.

Consultation:

The UTM Economics Department directly informed us that they consider ECO359H1 at UTSG to be equivalent to ECO359H5 and asked UTM Management to then list ECO359H1 as an exclusion for MGT232H5. UTM Management Faculty was also consulted and agreed with the proposal.

Resources:

None.

1 Minor Program Modification:

Certificate in Effective Business Practices & Leadership Skills

Completion Requirements:

Second Year:

- MGT231H5 and MGT262H5
- 15 Professional Skills Development Program points (must include Career Investment Planning Session, Momentum: Excel Workshop, Resume Critique, and Mock Interview)

Third Year:

- MGT300H5
- Workplace Preparation Workshop
- Summer
 - Work-Integrated Learning Experience
 - MGT010H5 (Note : this is a zero-credit course 4-month placement in Summer term)

Fourth Year:

- 0.5 credit from 400-level course list: MGM464H5 or MGT430H5 or MGT433H5 or MGT434H5 or MGT437H5 or MGT455H5 or MGT463H5 or MGT491H5 or MGT492H5 or MGT493H5 or MGT494H5
- MGT010H5 (NOTE: This is a zero-credit course)

To earn the Certificate students must concurrently be enrolled in a Commerce or Management program.

Rationale:

Some students are dissuaded to apply for the Business Certificate if they secure or complete a placement that is less or greater than 4 months which causes confusion as well. Removal of the timeline will allow for greater flexibility if students have longer or shorter work placements rather than being restricted to a 4-month placement. For example, if they have a placement of 12 weeks or 8 months.

Resource Implications:

None.

Political Science (UTM), Department of

19 New Courses:

POL203H5: Politics and Government of the United States

Contact Hours:

Lecture: 24 / Tutorial: 11

Description: A comparative study of the development of American government and the main elements of the American political tradition; the structure and functioning of executives, legislatures, courts, bureaucracies, parties and pressure groups in federal and state government; characteristic processes of American politics such as voting, bargaining and regulation; and resultant patterns of public policy.

Prerequisites: 1.0 POL credit or 4.0 credits

Corequisites:

Exclusions: POL203Y5 or POL203Y1 or POLC92H3 or POLC93H3

Recommended Preparation:

Rationale:

POL has offered POL 203 as a Y course for many years now. In a curriculum review retreat in December 2021, the faculty agreed to adapt the course so that it would be offered as an H course instead. 203H is meant as a replacement for 203Y.

Consultation:

The decision to rework POL 203Y into an H course, POL 203H, was made by our UTM faculty at a December 2021 curriculum workshop/retreat.

Resources:

Resource form submitted.

POL243H5: Research Methods for Political Science I

Contact Hours:

Lecture: 24 / Tutorial: 11

Description: This course offers an introduction into scientific inquiry and research in the field of politics. It explores a wide range of quantitative and qualitative methods with the aim of providing basic literacy and comprehension of methods important in encountering -and eventually, conducting – research in political science.

Prerequisites: 1.0 POL credit or 4.0 credits

Corequisites:

Exclusions: POL242Y5

Recommended Preparation:**Rationale:**

We have proposed to retire POL 242Y5 and replace that course with a .5 introduction to research methods (POL 243H5). After taking this course, students will have the option of pursuing one or both of two other new proposed methods courses (POL 244H5 and POL 343H5).

Consultation:

Our department held a curriculum workshop

Resources:

Resource form submitted.

POL244H5: Research Methods for Political Science II**Contact Hours:**

Lecture: 24 / Tutorial: 11

Description: In this course, students learn to conduct political analysis using methods common in the social sciences. This includes data such as surveys, international or social media datasets, and methods such as crosstabs and regression. Rather than stressing mathematical concepts, the emphasis of the course is on application, interpretation, and data visualization.

Prerequisites: POL243H5

Corequisites:

Exclusions: POL242Y5

Recommended Preparation:**Rationale:**

We have proposed to retire POL 242Y5 and replace that course with a .5 introduction to research methods (POL 243H5). After taking this course, students will have the option of pursuing one or both of two other new proposed methods courses: either this course or POL 343H5

Consultation:

This course may overlap with methods courses in sociology or economics, but it is specially designed for POL students.

Resources:

Resource form submitted.

POL303H5: The Politics of Islam

Contact Hours:

Lecture: 24

Description: The course examines the theory and practice of Islamic politics in the modern era. It also looks at Western foreign policy and Western cultural reactions to politics in the Muslim world. The aim is to acquaint students with the diversity within the Muslim world and help them better understand some of the most pressing political issues raised by contemporary Islam.

Prerequisites: 2.0 POL credits

Corequisites:

Exclusions: POL300Y5 or POL303Y5 or POL300Y1 or POLC96H3 or POLC97H3

Recommended Preparation:

Rationale:

This course is meant to replace POL303Y5, which our department has agreed to retire.

Consultation:

At a curriculum workshop retreat in December 2021, our POL faculty agreed to retire POL 303Y in favour of offering it as a 0.5 course, POL 303H.

Resources:

Resource form submitted.

POL327H5: Comparative Foreign Policy

Contact Hours:

Lecture: 24

Description: Comparative study of the foreign policies of Russia/USSR, the United States, Great Britain, France and Germany.

Prerequisites: POL208Y5 or (POL209H5 and POL210H5) or POL218Y5 or POL208Y1 or (POL218H5 and POL219H5)

Corequisites:

Exclusions: POL327Y5 or POL326Y1 or POLC82H3 or POLC83H3

Recommended Preparation:

Rationale:

We are planning to retire POL 327Y and replace that course with this new H course.

Consultation:

Our department had a curriculum workshop retreat in December 2021 and we agreed to retire POL 327Y and replace it with POL 327H.

Resources:

Resource form submitted.

POL343H5: Qualitative Methods**Contact Hours:**

Lecture: 24 / Tutorial: 11

Description: This course focuses on the research process with attention to writing research proposals and qualitative research methods.

Prerequisites: POL242Y5 or POL243H5

Corequisites:**Exclusions:**

Recommended Preparation: POL115H5

Rationale:

The Department currently offers a second year course on quantitative methods. This course would build on that course by examining qualitative research methods in order that students become familiar with all methods in Political Science. In addition, it would introduce proposal-writing with a particular focus on how to write a literature review. It would therefore provide a foundation for many fourth year courses which require students write research proposals.

Consultation:

Our department had a curriculum workshop retreat in December 2021 and decided collectively that we would like to propose a course in Qualitative Methods that could be taught by several of our tenure-stream and teaching-stream colleagues on a rotating basis.

Resources:

Resource form submitted.

POL344H5: Concepts, Actors, & Challenges in Global Governance**Contact Hours:**

Lecture: 24

Description: An introduction to the study of Global Governance. It presents Global Governance both as an area of study within International Relations theory, and as a set of norms and procedures that guide ongoing practices within international politics. The course will take students through the early development of the concept in the 1990s to present times. It will also cover key challenges to Global Governance.

Prerequisites: POL208Y5 or (POL209H5 and POL210H5) or POL208Y1 or (POL218H1 and POL219H1)

Corequisites:

Exclusions: POL343Y5 or POL343Y1 or POLC87H3

Recommended Preparation:

Rationale:

We have chosen to retire POL 343Y5 and replace it with a two-course sequence in Global Governance (POL 344H5 and POL 345H5). Students make take one or both of these courses.

Consultation:

Our department held a curriculum workshop retreat in December 2021. The IR area group agreed to retire our current Y course in Global Governance and replace it with a two course sequence, and this is one of those courses.

Resources:

Resource form submitted.

[POL345H5: Global Governance in Practice](#)

Contact Hours:

Lecture: 24

Description: This course builds on earlier conceptual discussions in POL344H5, to illustrate how Global Governance is practiced within specific empirical contexts. Students will take a deep dive into pressing examples of Global Governance practices and challenges (e.g., the United Nations, the World Health Organization, the global political economy).

Prerequisites: POL344H5

Corequisites:

Exclusions: POL343Y5 or POL343Y1 or POLC87H3

Recommended Preparation:

Rationale:

We have proposed to retire POL 343Y course and replace it with a sequence of two comparable H courses on global governance. This is the second H course in that sequence.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and we agreed then (in consultation with the IR faculty group) to retire POL 343Y5 and replace it with two H courses. Students may take one or both H courses--POL 343H5 and 344H5.

Resources:

Resource form submitted

POL355H5: Multiculturalism and Citizenship

Contact Hours:

Lecture: 24

Description: How are laws, policies, and social norms affected by the overwhelmingly multicultural character of contemporary societies? This course examines how the realities of contemporary multiculturalism have reshaped civic life, both in Canada and in other societies. The course will attempt to cover both empirical and theoretical-normative approaches to these issues.

Prerequisites: 2.0 POL credits

Corequisites:

Exclusions: POL355Y5 or POLC58H3

Recommended Preparation:**Rationale:**

We plan to retire POL 355Y (Multiculturalism and Citizenship) and we would like to replace it with this comparable H course.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and we agreed that we would like to retire this course and propose this H course to replace it.

Resources:

Resource form submitted.

POL362H5: Borders, Migrants and Refugees

Contact Hours:

Lecture: 24

Description: This course exposes students to the tensions between the mobility of people across international borders, and the hardening regimes of governance facing migrants. The course pays special attention to the intersections of class, race and gender at stake in the politics of migration.

Prerequisites: POL114H5 or POL218Y5 or (POL218H5 and POL219H5) or POL209H5

Corequisites:

Exclusions: POL390H5 (Summer 2020) or POL377H1 (Summer 2021)

Recommended Preparation: POL116H5

Rationale:

The instructor (Martha Balaguera) has taught two iterations of this course (UTM POL390, Summer 2020; UTSG POL377 Summer 2021). The course has had good enrolment and good feedback from students. As a permanent course, it would offer students the opportunity to take a 3rd-year course in comparative politics, and would build on 100- and 200-level courses in comparative politics and international relations.

Consultation:

Our department held a curriculum workshop retreat in December 2021, and we discussed as a group adding some special topics courses as more permanent offerings in our department. Dr. Balaguera's course is one we discussed and wish to add to our permanent course offerings.

Resources:

Resource form submitted

[POL370H5: Resource Politics in Postcolonial Africa](#)

Contact Hours:

Lecture: 24

Description: This course identifies natural resource exploitation as a prominent focus in discourses and policies concerned with African countries in the post-independence era (~1960s onwards), particularly when dealing with issues of conflict, democratization, economic development, poverty and regime crisis.

Prerequisites: A minimum 1.0 POL credit at the 200-level

Corequisites:**Exclusions:**

Recommended Preparation:**Rationale:**

There are currently no political science courses focused on Africa at UTM. This class will therefore fill in a significant gap in what we offer, as well as respond to student interests (as seen in the survey presented at the latest curriculum development workshop). The instructor has also been part of wider discussions with colleagues from other departments at UTM interested in the study of Africa, with the goal of forming an informal network of African studies that will foster student interest and encourage cross-disciplinary exchanges. So having this course will contribute to both interests in the political science department and the wider UTM community of Africa scholars.

Attached is the syllabus for the course, which was taught as a pilot class at Queen's University in 2015 (as a 4th year seminar). Students enrolled to capacity and the course evaluations (available as needed) were excellent. The course material will be updated from its 2015 version, and some assignments will be modified to reflect the 300-level (compared to the 400-level pilot).

Consultation:

Our department held a curriculum workshop retreat in December 2021, and we agreed that we would like to add a 300-level lecture course on African politics to our curriculum.

Resources:

Resource form submitted.

POL371H5: Contemporary Mediated Politics**Contact Hours:**

Lecture: 24

Description: This course examines the contemporary relationship between politics and media.

Prerequisites: 2.0 POL credits or (2.0 CCT or VCC credits)

Corequisites:

Exclusions: POL369Y5 or POL213Y1

Recommended Preparation:**Rationale:**

We have decided to retire POL369Y5: Media and Politics, and we will offer two 300-level H courses to replace it. This is the first course in that sequence

Consultation:

We had a curriculum workshop retreat in December 2021, and decided to split POL 369Y into two H courses.

Resources:

Resource form submitted

POL372H5: Communicating Politics

Contact Hours:

Lecture: 24

Description: This course explores how political actors such as political parties, pressure groups and governments use media to secure their political objectives.

Prerequisites: 2.0 POL credits or (2.0 CCT or VCC credits)

Corequisites:

Exclusions: POL369Y5 or POL213Y1

Recommended Preparation: POL371H5

Rationale:

We have decided to retire POL 369Y and replace it with two equivalent .5 courses, POL 370H and POL 371H

Consultation:

We had a curriculum workshop retreat in December 2021 and decided to retire our Y course on media and politics and replace it with two H courses.

Resources:

Resource form submitted

POL373H5: Introduction to Politics of the Middle East and North Africa

Contact Hours:

Lecture: 24

Description: Students will examine the political dynamics of selected states in the Middle East and North Africa. Issues to be covered include: state-building; Arab nationalism; Zionism; Islamism; tribalism; gender; the politics of oil. Specific themes relevant to contemporary politics will vary from year to year.

Prerequisites: POL218Y5 or (POL218H5 and POL219H5)

Corequisites:

Exclusions:**Recommended Preparation:** NMC278H1**Rationale:**

This course addresses a gap in UTM's course offerings and should appeal to a large number of UTM students who have expressed a strong interest in the region. Given the relevance of the Middle East and North Africa in global politics, it will have appeal to UTM's large Muslim student body and beyond. This course will furthermore act as an important prerequisite for the proposed 4th year seminar on uprisings and protest in the Middle East and North Africa.

Consultation:

Our department held a curriculum workshop retreat in December 2021, and we agreed that we would like to add a third-year lecture course on the politics of the Middle East and North Africa, since we have recently hired an expert in this region (Dr. Janine Clark).

Resources:

Resource form submitted.

POL407H5: The Politics of Oil & Mining Extraction: Contracts, Conflict, Consent**Contact Hours:**

Seminar: 24

Description: What can we learn about global politics from an oil or a mining contract? Who are the main actors in such contracts? What are key differences between oil and mining contracts? What is the future of oil and mining contracts? This course addresses these questions, by examining the complex politics of oil and mining contracts. Key theoretical concepts and themes explored in this course are sovereignty, ownership, resistance, and the future of resource extraction.

Prerequisites: A minimum 1.0 POL credit at the 300-level

Corequisites:**Exclusions:****Recommended Preparation:** POL370H5**Rationale:**

Big Oil and Big Mining continue to occupy a central part in both global and local politics. The heightened crisis in global oil & gas supply brought about by Russia's invasion in Ukraine is a powerful illustration of the continued centrality of oil and mining in global politics, despite the real need to divest from fossil fuel industries for the sake of the environment. One neglected

aspect of the politics of oil and mining lies in an important structural process, the contract stage. By the end of the course, students will be able to engage on why oil and mining contracts are important for understanding global and local politics; what the content and the silences embedded within contracts tell us about the future of global resource extraction; and they will be able to engage on the implications of these contracts for consent-building and conflict-making within local communities.

Dr. Campaore's research expertise lies in oil and mining politics, and she has access to a local and global network of academic and non-academic experts who will also be able to provide key expertise to the class as guests through various pedagogical activities from time to time.

Overall, the course will also be of relevance to students who have an interest in International Law, Law & Society, and Natural Resource Governance.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and we discussed adding more 4th-year seminars to our curriculum. Dr. Campaore's expertise in this research area makes her well qualified to offer an advanced course on resource politics like this one. This is a new course that has not been offered before, but our department agreed at the workshop to Dr. Campaore's proposal to introduce this course to our curriculum.

Resources:

Resource form submitted.

POL444H5: Protest and Revolution in the Middle East and North Africa

Contact Hours:

Seminar: 24

Description: Looking at uprisings and protests in the Middle East and North Africa, students will examine different theories of contentious politics to better understand why and how uprisings happen in the region. The course will focus on the 2011 Arab Spring uprisings/revolutions in addition to recent uprisings in countries that did not experience the Arab Spring.

Prerequisites: POL218Y5 or (POL218H5 and POL219H5) or POL390H5 or POL391H5 and POL373H5

Corequisites:

Exclusions: POL438H5 (Winter 2021 and Winter 2022)

Recommended Preparation: NMC278H1

Rationale:

Dr. Janine Clark has now offered this course twice as a special topics course in our department. (See attached syllabi.)

Focusing on the politics of Middle East and North Africa, this course addresses a gap in UTM's Political Science offerings. The course should have appeal to the large numbers of Muslim students at UTM. In addition, given that its focus is on the Arab Springs and other uprisings, the repercussions of which have been felt throughout the world including Canada, interest in this course also extends well beyond the Muslim student population. When Dr. Clark offered this course in 2022, enrolment filled up immediately.

Consultation:

Resources:

Resource form submitted.

Will need access to Zoom in the classroom for bringing in activists from the Middle East and North Africa to talk about their personal experiences.

POL445H5: The Politics of Queer and Trans Migrations

Contact Hours:

Seminar: 24

Description: This course offers a critical perspective about migration studies by centering the experiences of queer and trans migrants, and by adopting a feminist, queer and trans theory lens. Sources foreground intersections of gender, sexuality, race, class and nation.

Prerequisites: POL362H5 or POL390H5 (Summer 2020) or POL377H1 (Summer 2021)

Corequisites:

Exclusions:

Recommended Preparation: POL116H5

Rationale:

The instructor (Martha Balaguera) included related content in her UTM POL390/UTSG POL377 course, taught in the Summers of 2020 and 2021. This course has had good enrolment, and it provides foundational preparation for the more specialized content of "The Politics of Queer and Trans Migrations." As a permanent course, POL 455H would offer students the opportunity to take a 4th-year seminar in comparative politics, and it would build on 100- and 300-level courses in comparative politics.

Consultation:

Our department had a curriculum workshop retreat in December 2021, where faculty proposed and discussed seminars that would add to our curriculum. Dr. Balaguera proposed this course as part of that workshop.

Resources:

Resource form submitted.

POL483H5: Postcolonial Visions and the Americas

Contact Hours:

Seminar: 24

Description: This course seeks to reconstruct the category of American Political Thought through a postcolonial lens that centres the political investments of Black, Indigenous, Mestizo, and Creole communities. Drawing on political texts, poems, songs, and archival documents, students will engage with revolutionary thinking from Mexico, Venezuela, Colombia, Cuba, Haiti, Canada, and the United States, among others.

Prerequisites: POL200Y5 and POL320Y5

Corequisites:

Exclusions: POL485H5 (Fall 2022) or POL484H1 (Winter 2023)

Recommended Preparation:

Rationale:

This course aims to address a need for seminars focusing on Black, Indigenous, and Latin American political theory. While there are courses in the tri-campus system offered in Indigenous and Black politics, these do not focus on the Americas, nor are they primarily situated in the field of political theory. There are also no courses emphasizing postcolonial and decolonial methods in political theory. This course would give students an opportunity to engage with these topics at an advanced level and in a conversation-based format. The course is also designed to encourage students to engage with archival materials throughout the semester. Dr. Chang will work with the UTM library to provide support for students with no experience in this area.

Consultation:

Our department held a curriculum workshop retreat in December 2021 in which we discussed which new courses we would like to add to our offerings in POL. Dr. Chang Quiroz proposed this course, which was approved by our group. Dr. Chang will pilot this course as a special topics course at UTM in the 2022-2023 academic year. He has also successfully taught this class at Northwestern University (as a first-year course) and Williams College (as an advanced seminar). We expect it will have a similarly positive reception at UTM.

Resources:

Resource form submitted.

POL493H5: Social Risk and Social Protection

Contact Hours:

Seminar: 24

Description: This class is a study of the welfare state. We will study old and new social risks, such as poverty, homelessness, and unemployment, and consider the types of social protections that are offered against those risks. The class will cover broad theories of the welfare state and social policy, and will also consider specific areas of policy and what governments and non-governmental groups are doing to protect against old and new risks.

Prerequisites: POL215H5 and POL216H5

Corequisites:

Exclusions:

Recommended Preparation: POL111H5 and POL318H5

Rationale:

This class will build on existing classes in our curriculum, especially Power and Conflict in Federalism (POL318H), which covered complex areas of policy (many of which are areas of social policy). This will be a good class for our POL students who took POL 381H but will also be a good next step for students who have only taken the intro to Canadian politics classes but are interested in social justice, rights, and social policy issues. We anticipate students from other programs (e.g. Sociology, Criminology, Geography) might also be interested in taking the class.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and this was one of the 4th-year courses we discussed adding to our curriculum.

Resources:

Resource form submitted.

11 Retired Courses:

POL203Y5: Politics and Government of the United States

Rationale:

Our department would like to retire this course and we have proposed a different version of the course. We would like to offer it as an H course, POL 203H (proposal submitted).

Consultation:

Our department agreed to retire this course and create a new one, POL 203H, which would cover many of the same materials in a .5 course. This decision was made at a department-wide curriculum workshop held in Dec 2021.

POL242Y5: Methods

Rationale:

We propose to retire this course and replace it with three other methods course options for our students: POL 243H5 (intro to research design), POL 244H5 (a research design course that focuses on quantitative analysis) and POL 343H5 (an intermediate research design course that focuses on qualitative analysis).

Consultation:

Our department held a curriculum workshop retreat in December 2021, and we agreed then to reconfigure our methods offerings by retiring this course and creating a cluster of three H courses in methods for our students.

POL303Y5: The Politics of Islam

Rationale:

We would like to retire POL 303Y in favour of offering a new version of it as an H course. We have submitted a new proposal for POL 303H.

Consultation:

Our department met for a curriculum workshop retreat in December 2021. At that retreat, we agreed to retire this course and replace it with a new H course.

POL310Y5: Managing International Military Conflict

Rationale:

Our department would like to retire this Y course and replace it with 2 H courses that cover the same material. Students may choose to take one or both of these courses.

Consultation:

Our department had a curriculum workshop retreat in December 2021 and decided to retire this course, and to replace it with two equivalent H courses.

POL327Y5: Comparative Foreign Policy

Rationale:

We would like to retire this course, and we have proposed a replacement H course: POL 327H5.

Consultation:

Our department held a curriculum workshop retreat in December 2021 and agreed to retire this course and replace it with a new proposed course (POL 327H) which covers much of the same material.

POL336Y5: Ontario Politics

Rationale:

We propose retiring this course, and we have proposed a replacement half-year course instead, POL 336H.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and our faculty agreed to retire this course and replace it with a new proposed course, POL 336H (Ontario Politics).

POL343Y5: Politics of Global Governance

Rationale:

We would like to retire this Y course and replace it with a sequence of two comparable H courses on global governance.

Consultation:

Our department had a curriculum workshop retreat in December 2021, and we agreed then (in consultation with the IR faculty group) to retire this course and replace it with two H courses. Students may take one or both H courses.

POL354Y5: Russian Politics

Rationale:

Our program would like to retire this Y course in Russian politics, as we have H versions of the course already in place.

Consultation:

Our department had a curriculum retreat workshop in December 2021, and at that time we agreed to retire this Y course on Russian politics and rely instead on existing H courses.

POL355Y5: Multiculturalism and Citizenship

Rationale:

We have proposed a new, similar course: POL 355H (Multiculturalism and Citizenship), and we would like to retire this one.

Consultation:

Our department held a curriculum workshop retreat in December 2021. At that meeting, we agreed to retire this Y course and to propose a new, similar H course (POL 355H5).

POL369Y5: Media and Politics

Rationale:

We would like to retire this course and replace it with a 2-course sequence that covers the same materials (POL 371H5 and POL 372H5).

Consultation:

Our department had a curriculum workshop retreat in December 2021, and we agreed to retire this Y course and replace it with 2 H courses.

Proposal Status:

Under Review

POL438Y5: Topics in Comparative Politics

Rationale:

We would like to retire this Y course since we have a similar topics course in place as an H course (POL 438H).

Consultation:

Our department had a curriculum workshop retreat in December 2021. At that retreat, our faculty agreed to retire this Y course since we use POL 438H more regularly.

Study of University Pedagogy (UTM), Institute for the

3 New Courses:

ISP251H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None.

ISP351H5: Special Topics in University Pedagogy

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending

on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None.

ISP451H5: [Special Topics in University Pedagogy](#)

Contact Hours:

Lecture: 24

Description: This course covers a special topic in University Pedagogy. Content relates to instructor's area of interest, thus the course varies in focus from year to year. This course may satisfy either the Humanities, Sciences, or Social Sciences distribution requirement, depending on the topic offered. The contact hours for this course may vary in terms of contact type (L,S,T,P) from year to year, but will be between 24-36 contact hours in total. See the UTM Timetable.

Prerequisites: ISP100H5

Corequisites:

Exclusions:

Recommended Preparation:

Rationale:

ISUP stands for the Institute for the Study of University Pedagogy, and thus, it is necessary to actually offer courses in topics related to University Pedagogy. Courses will focus on pedagogical activities. Pedagogy is broadly defined as the theory and practice of learning, including the social, political, cultural and psychological context of teaching and learning. As an academic discipline, the study of university pedagogy investigates the interactions, knowledge and skills involved in pedagogy as defined above, specifically within a university context. Increasingly, such studies examine both teachers and students as agents in this process.

Consultation:

Consultation with ISUP curriculum committee confirmed on April 11, 2022.

Resources:

None