ANAT 100/3.0 Anatomy of the Human Body
This anatomy course is designed to introduce students to the basic structure and functional relationship of the human body. Through a series of weekly learning modules, students will learn about the basic language of Gross Anatomy and Histology in order to understand the working of various body systems. This course is also suitable for individuals who have a general interest in human anatomy.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
LEARNING HOURS 120 (48O;72P)
EXCLUSION(S) ANAT 101/3.0; IDIS 150/6.0
ONE-WAY EXCLUSION May not be taken with or after ANAT 215/3.0; ANAT 216/3.0; ANAT 270/3.0; ANAT 312/3.0; ANAT 315/3.0; ANAT 316/3.0.

ANAT 101/3.0 Introductory Human Anatomy
A basic anatomy course with an emphasis on clinical relevance of structure and function of human body systems.
RECOMMENDATION 4U Biology.
EXCLUSION(S) ANAT 100/3.0; IDIS 150/6.0
ONE-WAY EXCLUSION May not be taken with or after ANAT 215/3.0; ANAT 216/3.0; ANAT 270/3.0; ANAT 312/3.0; ANAT 315/3.0; ANAT 316/3.0.

ANAT 215/3.0 Principles of Human Morphology I
The general principles of human structure and function as appreciated through a survey of the morphological sciences, including: history of anatomy; embryology; neuroanatomy; developmental, microscopic and gross anatomy of the locomotor system.
NOTE Priority will be given to students registered in a LISC Specialization Plan.
PREREQUISITE (BIOL 102/3.0 and BIOL 103/3.0) or (BIOL 201/3.0 and BIOL 202/3.0).
EXCLUSION(S) ANAT 315/3.0.

ANAT 216/3.0 Principles of Human Morphology II
The general principles of human structure and function as appreciated through a survey of the development, microscopic and gross anatomy of the body systems: cardiovascular, respiratory, immune/lymphatic, endocrine, digestive and genitourinary.
NOTE Priority will be given to students registered in a LISC Specialization Plan.
PREREQUISITE ANAT 215/3.0.
EXCLUSION(S) ANAT 316/3.0.

ANAT 270/3.0 Human Anatomy and Morphology
This course is designed to introduce the foundations of human structure and function to students at all levels of post-secondary education. Through a series of learning modules, students will develop an understanding of the architecture of the human body through interactive study using a virtual cadaver. This course will survey the gross and microscopic anatomy of the body organ systems including the skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary and reproductive systems.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
NOTE May not be taken for credit towards the Plan requirements of the LISC Specialization or Major Plans.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 2 and one of (ANAT 100/3.0 or BIOL 102/3.0 or PHGY 170/3.0).
ONE-WAY EXCLUSION May not be taken with or after ANAT 215/3.0; ANAT 216/3.0; ANAT 315/3.0; ANAT 316/3.0.

ANAT 309/3.0 Functional Histology
An outline of basic mammalian tissues.
NOTE Priority will be given to students registered in a LISC Specialization Plan.
LEARNING HOURS 120 (36L;24Lb;60P)
PREREQUISITE BIOL 102/3.0 or BIOL 103/3.0 or *BIOL 202/3.0.*

ANAT 312/3.0 Functional Neuroanatomy
Study of the structure and function of the nervous system by lectures, hands-on laboratories, brain dissection, and readings. Topics include, but are not limited to, sensory and motor systems, brain imaging, and clinical examples.
PREREQUISITE (ANAT 215/3.0 and ANAT 216/3.0) or (ANAT 315/3.0 and ANAT 316/3.0) or (PHGY 215/3.0 and PHGY 216/3.0).

ANAT 315/3.0 The Human Musculoskeletal System
Gross and functional anatomy of the back, body wall, upper and lower limbs, including blood supply and neural controls.
PREREQUISITE (BIOL 102/3.0 and BIOL 103/3.0) or (BIOL 201/3.0 and BIOL 202/3.0) or KNPE 153/3.0 or *PHED 153/3.0*.
EXCLUSION(S) ANAT 215/3.0.

ANAT 316/3.0 The Human Visceral Systems
Gross and functional anatomy of the thorax, abdomen and pelvis, head and neck.
PREREQUISITE (BIOL 102/3.0 and BIOL 103/3.0) or (BIOL 201/3.0 and BIOL 202/3.0) or KNPE 153/3.0 or *PHED 153/3.0*.
EXCLUSION(S) ANAT 216/3.0.

ANAT 380/3.0 Clinically Relevant Human Anatomy
ANAT 380 will explore regional anatomy of the human body focusing on the major organ systems, their components, and the relationships between them. In this course, students will apply anatomical knowledge to collaboratively solve case-based clinical scenarios, and develop a realistic clinical case based on an underlying anatomical issue.
LEARNING HOURS 120(48O;72P)
PREREQUISITE {Minimum 3rd year (level 3) standing, and one of [ANAT 100/3.0; ANAT 101/3.0; (ANAT 215/3.0 and ANAT 216/3.0);(ANAT 315/3.0 and ANAT 316/3.0)]; and one of [(PHGY 215/3.0 and PHGY 216/3.0);(KNPE 125/3.0 and KNPE 225/3.0)]}
OR
{Minimum 2nd year (level 2) standing in a KINE Plan, and one of [ANAT 100/3.0; ANAT 101/3.0; (ANAT 215/3.0 and ANAT 216/3.0);(ANAT 315/3.0 and ANAT 316/3.0)]; and one of [(PHGY 215/3.0 and PHGY 216/3.0);(KNPE 125/3.0 and KNPE 225/3.0)]}

ANAT 409/3.0 Selected Topics in Histology
A focused histological and cell biological study of three selected mammalian tissues, organs and/or systems.
PREREQUISITE Level 4 and a GPA of 2.5 and (registration in a LISC Major or Specialization Plan) and [ANAT 309/3.0 or (ANAT 215/3.0 and ANAT 216/3.0) or (ANAT 315/3.0 and ANAT 316/3.0)].

ANAT 417/3.0 Mammalian Embryonic Development
Comprehensive overview of cellular and molecular mechanisms that direct embryogenesis including gastrulation, neurulation, establishment of body axes, differentiation, sex determination, limb development, organogenesis, and teratology. Participation in seminar presentations and group discussions is required.
LEARNING HOURS 114 (24L;12S;1I;77P)
PREREQUISITE Level 4 and a GPA of 2.5 and (registration in a LISC Major or Specialization Plan) and [ANAT 309/3.0 or (ANAT 215/3.0 and ANAT 216/3.0) or (ANAT 315/3.0 and ANAT 316/3.0)].

ANAT 499/12.0 Research Project in Anatomy and Cell Biology
An examination of the development and present state of knowledge in selected research areas of Anatomy and Cell Biology. Research project involves experimental design, data collection and analysis, written report, poster presentation and oral presentation. Students will be required to attend seminars and tutorials on topics related to research. Limited enrolment; restricted to fourth year honours, permission of the department required.
NOTE Acceptance by a supervisor required prior to registration.
NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.
LEARNING HOURS 480 (288Lb;24G;24I;144P)
PREREQUISITE Level 4 and registration in a LISC Specialization Plan and a GPA of 2.50 and [(ANAT 215/3.0 and ANAT 216/3.0) or ANAT 309/3.0 or (ANAT 315/3.0 and ANAT 316/3.0)].
EXCLUSION(S) CANC 499/12.0; EPID 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

ANSH 101/3.0 Beginning Anishinaabe Language and Culture I

An introduction to the language and culture of the Anishinaabe people. This course is designed for those who have neither been exposed to Anishinaabemowin nor its traditional societal practices. Gain a rich understanding of the Anishinaabe people and their language at the beginning level.

LEARNING HOURS 120 (36L;84P)

EXCLUSION(S) LLCU 101/3.0 (Anishinaabemowin I).

ANSH 102/3.0 Beginning Anishinaabe Language and Culture II

A continuation of ANSH 101/3.0. Students will participate and begin to develop the ability to read, write and speak some basic Anishinaabemowin and further their understanding of the rich culture, traditions and worldviews of the Anishinaabe people.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE ANSH 101/3.0.

EXCLUSION(S) LLCU 102/3.0 (Anishinaabemowin I).

ARAB 100/6.0 Introductory Arabic (Modern Standard)
Introduction to the basic structures of Modern Standard Arabic. This course gives intensive training equally in listening, speaking, reading, and writing.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE Permission of the Instructor.

ARAB 200/6.0 Intermediate Modern Standard Arabic
This intensive intermediate-level course is designed to provide a review of the basic elements of Modern Standard Arabic and continues the development of students' communicative skills in reading, writing, listening and speaking Arabic. It will offer an introduction to more complex syntactic and grammatical forms and structures, preparing students for carrying on a simple conversation, reading an intermediate level text, and understanding basic conversations.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ARAB 100/6.0 or permission of the Instructor.

ARTF 100/6.0 Introductory Drawing
A basic introduction to the principles of line and form, intended as a foundation for further studies in the visual arts.
NOTE Offered during Summer Term only. Not available for credit towards a B.F.A. program.
NOTE Materials: estimated cost $100.
EXCLUSION(S) ARTF 127/6.0; ARTF 128/6.0.

ARTF 101/3.0 Fundamentals of Drawing and Painting
A foundation course aimed at developing basic skills in drawing and painting, embracing a variety of subjects, materials and techniques.
NOTE Materials: estimated cost $300.
NOTE Not available for credit towards a BFA program.
LEARNING HOURS 144 (48Lb;96P)
RECOMMENDATION ARTH 120/6.0. A survey course in Art History provides increased visual literacy at the studio level. Previous experience in painting and drawing is highly recommended.
PREREQUISITE Permission of the instructor.
EXCLUSION(S) ARTF 106/3.0; ARTF 127/6.0; ARTF 128/6.0

ARTF 102/3.0 Fundamentals of Drawing and Sculpture
A foundation course in drawing and sculpture aimed at examining the visual, tactile and structural characteristics of various materials in relation to 3 dimensional space.
NOTE Materials: estimated cost $250.
NOTE Only available to students in the Faculty of Education
LEARNING HOURS 144 (48Lb;96P)
RECOMMENDATION ARTH 120/6.0. A survey course in Art History provides increased visual literacy at the studio level. Previous experience in studio art is highly recommended.
PREREQUISITE ARTF 101/3.0 or permission of the instructor.
EXCLUSION(S) ARTF 127/6.0; ARTF 128/6.0

ARTF 106/3.0 Introductory Fine Art (Drawing and Painting)
An exploration, through the processes of drawing and painting, of a wide variety of visual problems encountered by the contemporary artist.
NOTE Not available for credit towards a B.F.A. program.
NOTE Offered only at the Bader International Study Centre, Herstmonceux, in Summer Term.
NOTE Materials: estimated cost $200.
EXCLUSION(S) ARTF 101/3.0; ARTF 127/6.0; ARTF 128/6.0

ARTF 125/3.0 Introduction to Studio Art in Printmaking
This survey course introduces various Printmaking techniques including monoprint, relief, etching, digital and hybrid methods. Students focus on applying the various methods to personal research interests to create original print based imagery that demonstrates formal, conceptual, historical and contemporary consideration.
NOTE BFAH students may not enroll in this course.
NOTE Materials: estimated cost $100.
RECOMMENDATION Some drawing experience.
ONE-WAY EXCLUSION May not be taken with or after ARTF 227/6.0 or ARTF 265/3.0.

ARTF 127/6.0 Introductory Fine Art I
A foundation course that offers two of the sections from the four media areas available at this level: painting, drawing, two-dimensional fundamentals, and three-dimensional fundamentals. One class per week will be devoted to learning safe procedures and technical skills in the wood-shop. There will be a half-day WHMIS safety training workshop.
NOTE Open only to students in a BFA Program.
NOTE Materials: estimated cost $600 (includes technical skills fee of $25).
LEARNING HOURS 288 (144Lb;144P)
EXCLUSION(S) ARTF 100/6.0; ARTF 101/3.0; ARTF 102/3.0; ARTF 106/3.0
ONE-WAY EXCLUSION May not be taken with or after: *ARTF 125/6.0*; ARTF 260/3.0; ARTF 265/3.0.

ARTF 128/6.0 Introductory Fine Art II
A continuation of ARTF 127/6.0, this course offers two of the sections from the media available at this level: painting, drawing, two-dimensional fundamentals, and three-dimensional fundamentals.

NOTE Open only to students in a BFA Program.
NOTE Materials: estimated cost $600
NOTE A $250 deposit is required by students who intend on participating in the voluntary 2nd year field trip to New York.
LEARNING HOURS 288 (144Lb;144P)
PREREQUISITE A minimum grade of C- in ARTF 127/6.0 and a GPA of 1.60.
EXCLUSION(S) ARTF 101/3.0; ARTF 102/3.0; ARTF 106/3.0

ARTF 227/6.0 Intermediate Fine Art I
This course offers two of the sections from the four media areas available at this level: painting, drawing, print media and sculpture. Course content builds on concepts developed in ARTF127/6.0 and ARTF128/6.0. New techniques, skills and concepts are introduced.
NOTE Open only to students in a BFA Program.
NOTE The voluntary field trip to New York is highly recommended; the estimated cost is $700.
NOTE Materials: estimated cost $400.00.
LEARNING HOURS 288 (144Lb;144P)
PREREQUISITE A minimum grade of C- in ARTF 128/6.0 and a GPA of 1.60.

ARTF 228/6.0 Intermediate Fine Art II
This course offers two of the sections from the four media areas available at this level: painting, drawing, print media and sculpture. Course content builds on concepts developed in ARTF127/6.0 and ARTF128/6.0. New techniques, skills and concepts are introduced.
NOTE Open only to students in a BFA Program.
NOTE Materials: estimated cost $400.00.
LEARNING HOURS 288 (144Lb;144P)
PREREQUISITE A minimum grade of C- in ARTF 227/6.0 and a GPA of 1.60.

ARTF 260/3.0 Studies in Studio Practice
Non-B.F.A. students work with media, techniques and strategies of contemporary and earlier artists. Coursework includes drawing, painting, and studio visits. Discussion on artists' writings on studio practice/theory, and art practice as research. Emphasis on understanding process rather than skill development.
NOTE Not available for credit towards a B.F.A. program.
NOTE Materials/field trip: estimated cost $150-200.
RECOMMENDATION ARTH 120/6.0.

ARTF 265/3.0 Intermediate Studies in Studio Practice
An intermediate studio practice course exploring the practical and pedagogical aspects of print-based artwork, processes and strategies, as well as the resulting theoretical implications that have accompanied recent technological changes in production and distribution.
NOTE Only available to students in the Faculty of Education.
NOTE Materials estimated cost: $200.
RECOMMENDATION ARTH 120/6.0.
PREREQUISITE ARTF 101/3.0 or ARTF 102/3.0 or permission of the instructor.

ARTF 275/3.0 Digital Media in Studio Practice
In this introductory studio e-course, students will examine the current nature of digital media practices in relation to Contemporary Art. Through studio research, students will explore the context of digital practices and theories, and its effect on the production of images and objects within the digital landscape.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 2 or above.

ARTF 337/9.0 Advanced Programs I
In this advanced course students select one media choice from these areas: paint media, sculpture/new media or print media.
NOTE Open only to students in a BFA Program.
NOTE Materials: estimated cost $350.
LEARNING HOURS 324 (144Lb;180P)
PREREQUISITE A minimum grade of C- in ARTF 228/6.0 and a GPA of 1.60.

ARTF 338/9.0 Advanced Programs II

In this second advanced-level course students choose two media sections from these areas: paint, media, sculpture/new media, or print media. The media area chosen must be different from that studied in ARTF 337/9.0. The course will include seminars introducing elements of professional practice.

NOTE Open only to students in a BFA Program.

NOTE Materials: estimated cost $350.

LEARNING HOURS 324 (144Lb;180P)

PREREQUISITE A minimum grade of C- in ARTF 337/9.0 and a GPA of 1.60.

ARTF 447/9.0 Individual Programs I

In fourth year, each student must submit a proposal for an individual program of creative exploration and research. This can be based on one or more of the following areas: painting, print media, 3-D media. Instruction at this level is through individual tutorials and critiques, although all students will meet once a week for a common seminar.

NOTE Open only to students in a BFA Program.

NOTE Materials: estimated cost $50 to $150.

LEARNING HOURS 309 (9S;12I;288P)

PREREQUISITE Level 4 and (a GPA of 2.60 in ARTF 337/9.0 and ARTF 338/9.0) and (a grade of C- in ARTH 120/6.0) and (a minimum of 6.0 units in ARTH at the 200-level) and a GPA of 1.90.

ARTF 448/9.0 Individual Programs II

In fourth year, each student must submit a proposal for an individual program of creative exploration and research. This can be based on one or more of the following areas: painting, printmedia, 3-D media. Instruction at this level is through individual tutorials and critiques, although all students will meet once a week for a common seminar.

NOTE Open only to students in a BFA Program.

NOTE Materials: estimated cost $50 to $150.

LEARNING HOURS 309 (9S;12I;288P)

PREREQUISITE A minimum grade of C- in ARTF 447/9.0.

ARTH 101/3.0 Introduction to Visual Studies
Course provides an introduction to interdisciplinary theories and concepts in the study of visual culture, to critically interrogate our increasingly visual world.
LEARNING HOURS 126 (36L;36O;54P)

ARTH 116/3.0 Art and Architecture in Britain from the Classical Period to c.1700
A chronological survey of painting, sculpture and architecture in western culture from Greece and Rome through to the early modern period. The art works will be studied at British galleries, museums and architectural monuments.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L;24T;18GL;6I;12O;9OC;24P)
EXCLUSIONS No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0

ARTH 117/3.0 Art and Architecture in Britain from c.1700 to the Present
A chronological survey of painting, sculpture and architecture in western culture from c.1700 to the present day. The art works will be studied at British galleries, museums and architectural monuments.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L;24T;18GL;6I;12O;9OC;24P)
EXCLUSIONS No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0

ARTH 120/6.0 Art in the West from Antiquity to Modernity
A survey of famous and lesser-known works of painting, sculpture, architecture, and other art forms from Antiquity, the Middle Ages, the Renaissance, the Baroque, and the Modern Age. Themes include politics, religion, mythology, gender roles, techniques, conservation and intersections with non-western cultures.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (48L;12T;48O;132P)
EXCLUSIONS No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0

ARTH 202/3.0 Topics in Arts and Visual Cultures
A lecture course on a selected topic. Please contact the Department of Art History and Art Conservation for more details.
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 203/3.0 Art and Popular Culture
This course explores the relationship between the development of a “popular culture” and the visual arts between c. 1700-2000 in Europe and North America.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 208/3.0 Caves, Cathedrals, Capitals: Introduction to World Architecture
Covering considerable territory, from the painted caves of Niaux in South-West France to megalithic monuments such as Stonehenge, from the villages of the Middle Ages to the cities of Modernity, this course introduces key ideas, monuments, building technologies and protagonists in the history of Architecture from prehistory to present.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 210/3.0 An Introduction to Technical Art History
A course surveying the study of artists’ materials and techniques through methods of examination such as X-radiography, infrared reflectography, dendrochronology, and high-resolution digital imaging.
LEARNING HOURS 120 (24L;12Pc;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 211/3.0 Science and Art Conservation: Complexities and Controversies
This course will explore the scientific aspects of art conservation, including the materials found in cultural heritage, their degradation, and the scientific techniques used in their analysis. Topics to be discussed include conservation treatments and preventative conservation, as well as forgeries and conservation controversies in history.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 212/3.0 Medieval Art
An introduction to the arts of the Middle Ages (c.300-1400) from the origins of Christian art under the Emperor Constantine, through the Early Christian, Byzantine, Romanesque and Gothic Periods.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 214/3.0 Renaissance Art and Architecture before 1500
A study of Renaissance art and architecture before 1500 within the context of the social, political and economic history of Western Europe. Key monuments, themes and concepts will be stressed.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 215/3.0 Renaissance Art and Architecture after 1500
A study of Renaissance art and architecture after 1500 within the context of the social, political and economic history of Western Europe. Key monuments, themes and concepts will be stressed.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 222/3.0 Impressionism and Post-Impressionism
This course offers a unique opportunity to study the art of Manet, Degas, Monet and Van Gogh, where many of the paintings studied will be viewed on gallery visits to London and Paris. Some of the classes will take place in the Musée D'Orsay in Paris and the National Gallery and Courtauld Institute in London. Further classes at Herstmonceux Castle explore gender debates, the French nude and Paris as the fashionable centre of modernity.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L;6S;24T;18G;6I;12O;9Oc;24P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 223/3.0 Art in Europe c.1800-1850
A comparative study of English and Continental European art in the first half of the 19th century. Topics include landscape as an expression of class and power, art and politics in French Romanticism, gender roles in Pre-Raphaelite painting and the rhetoric of Realism.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.
EXCLUSION(S) ARTH 250/3.0

ARTH 225/3.0 Fashion and Art: From the Renaissance to the Present
This course considers the relationship between fashion and art from the Renaissance to the present. Through an exploration of objects and images, it examines social and cultural changes in Western dress, artists' use of clothing to construct narratives, and fashion itself as a form of artistic representation.
Recommended: ARTH 120/6.0
LEARNING HOURS 120(36L; 12G;84P)
PREREQUISITE Level 2 or permission of the Department

ARTH 226/3.0 Histories of Modern Art
This course will examine the histories, meanings and sites of modern art. Students will become familiar not only with the works themselves, but with shifts in critical conceptions and key art historical problems surrounding modern art.
LEARNING HOURS 120 (24L;12G;12O;72P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 228/3.0 Histories of Contemporary Art
This course will examine the histories, meanings and sites of contemporary art from the 1960s to the present. Students will become familiar not only with the works themselves, but with shifts in critical conceptions and popular media that affect both the production and reception of contemporary art.
LEARNING HOURS 120 (24L;12G;12O;72P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 231/3.0 Canadian Art I

A study of Canadian art from its beginnings through the nineteenth century. The nature and development of Canadian art within the context of the social, political and economic history of the country will be examined.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 232/3.0 Canadian Art II
A study of Canadian art from the end of the nineteenth century. The nature and development of Canadian art within the context of the social, political and economic history of the country will be examined.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 234/3.0 Introduction to African Arts
An introduction to the arts and visual culture of Africa, encompassing traditional or classic African arts, as well as modern and contemporary artists. The course also examines how the African art field was shaped, and its critical turning points.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2 or permission of the department

ARTH 242/3.0 Introduction to the History of Photography
An introduction to the history of photography as technology, art, and social practice. Within the larger historical contexts of society and culture, this course surveys key developments and applications in France, England, and the United States, and their spread to other parts of the world, and considers the work of major photographers and their influence.
LEARNING HOURS 120 (24L;12G;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 245/6.0 Art and Architecture in Venice
Instruction in Venice based on daily study tours to the city's monuments and galleries. Each week a visit will be organized to an important Centre in the Venice region.
NOTE Costs of travel and accommodation abroad must be paid by the student. Consult the Department for the costs involved. Estimated cost: Room and board $4,500, Travel $1500.
LEARNING HOURS 242 (96L;20S;24T;2I;48OC;52P)
PREREQUISITE 6.0 units in ARTH.

ARTH 248/3.0 Introduction to the Indigenous Arts of North America
An introduction to the arts and visual culture of the Indigenous peoples of North America from north of the Rio Grande to the Arctic, encompassing pre-history, colonialism, and the modern period. Key works from six regional zones are studied in their historical and cultural contexts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 250/3.0 Art, Society, and Culture
An introduction to the social conditions and cultural movements that shaped European visual art of the nineteenth century in its global context. The course will stress the tension between modernity and anti-modernism as well as competing views on the very nature of visual art.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (48O;72P)
PREREQUISITE Level 2 or above or permission of the Department.
EXCLUSION(S) ARTH 223/3.0

ARTH 253/3.0 Baroque Art
A survey of the visual culture of Europe and its colonies in the Baroque age (ca. 1580-1750). Attention is given to developments in all aspects of the visual arts, with emphasis on painting, sculpture, architecture, and the graphic arts, and on the achievements of artists such as Rembrandt, Rubens, Poussin, Velasquez, and Bernini.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION ARTH 120/6.0.
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 260/3.0 Culture and Conflict
An investigation of the impact of war on art and architecture, as well as human attempts to preserve cultural heritage. A chronological or thematic approach may be taken, with focus placed on one or more case studies, such as: the Sacks of Rome, the Napoleonic wars, Nazi looting, the Cultural Revolution in China, and Afghanistan under Taliban rule.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 265/3.0 Heritage in Danger
A thematic introduction to the threats posed to cultural heritage, in the past and the present, and approaches to the preservation of heritage. The course will consider both environmental disasters and damage caused by human hands. Case studies will feature many UNESCO World Heritage sites.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 272/3.0 Latin American Art
Surveys the art and architecture of Latin America from the pre-Hispanic period to the present, from Patagonia to California. Particular attention is paid to the contribution of aboriginal artists and traditions to colonial visual culture and the built environment. Considers the rise of the academies, Nationalism, Indigenism, Romanticism, Modernism (Kahlo, Rivera, Tarsila), Madí and Chicano muralism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 288/3.0 Art Worlds
This course introduces students to key institutions of art by studying their histories, current practices, and future challenges. Using a case study approach to institutions including museums, artist-run centres, auction houses, and private galleries, the course develops students' understanding of art worlds both in Canada and globally.
LEARNING HOURS 114 (24L;12G;18O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 292/3.0 Architecture from 1900 to the Present
An examination of architecture as it has developed in relation to the economies, technologies, and social practices of the modern world. Our focus will include architectural aesthetics, materials, structures, technologies, and spaces.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or permission of the Department.

ARTH 293/3.0 Self/Image: The Portrait
From ancient Egyptian mummies to contemporary selfies, visual portraits have reflected and shaped ideals of personal and collective identity in diverse cultures and historical periods. This course explores the art of portraiture and its significance in human society. Specific case studies may vary.
NOTE: Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS (36L; 84P)
PREREQUISITE Level 2 or above or permission of the Department.
EQUIVALENCY *ARTH 393/3.0*

ARTH 301/3.0 The Artwork as Material Object
A study of selected objects with a focus on materials and meanings.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 303/3.0 Issues in Contemporary Art and Popular Culture
This course examines intersections between art and popular culture in the late twentieth and twenty-first centuries. Students will develop an understanding of the histories of the terms "ART" and "popular culture", how they have been defined, historically opposed, and are contemporary art (e.g. Fluxus, manga, Tropicalia, net.art and post-internet).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.
EXCLUSION(S) ARTH 305/3.0 (2017-18)

ARTH 304/3.0 Issues in the History of Canadian Art
A selective examination of issues in Canadian art history and historical practice, especially as they inform the production and critique of the history of Canadian art.
LEARNING HOURS 120 (30L;6Oc;84P)
PREREQUISITE Level 3 or above.

ARTH 305/3.0 Topics in Modern and Contemporary Art History
An examination of one aspect of modern and/or contemporary art history. Possible areas of investigation include the study of an issue important to the art of the modern and/or contemporary period, as well as the study of the methods and historiographic positioning of art historians working today.
LEARNING HOURS 120 (30L;6Oc;84P)
RECOMMENDATION ARTH 226/3.0 and ARTH 228/3.0.
PREREQUISITE Level 3 or above.

ARTH 306/3.0 Modern Architecture in Germany: A Social History
This course examines German architecture, 1815 to 1945, as an important part of social practice. Buildings and monuments from German Confederation to the Third Reich will be understood according to the values they expressed and perpetuated, through their aesthetics, their materials, and their spaces.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 307/3.0 Romanesque: Art and Historicism in Europe c.800-1150
This course considers the retrospective tendencies in art of the so-called 'Romanesque period' leading up to the 'Gothic'. Considering monuments across all media, we discuss concepts of artistic development in cathedral, monastic and secular settings. We will also consider modes of 'reading' and interpretation of medieval art in terms of contemporary modes of perception.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 308/3.0 Gothic Art in Europe c.1150-1400
This course examines the changes in European art later known as 'Gothic'. With a focus on England, France, Spain, Italy and Germany, this class will consider major monuments across the media, from manuscript painting, to architecture, stained glass, sculpture and ars sacra. Throughout, monuments will be placed in their appropriate social, historical and patronal contexts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 310/3.0 Art and Feminisms
An investigation of the connections between art, art history and intersectional feminisms. Students will be introduced to a number of the key issues and critical frameworks that have informed diverse feminist approaches to art, art history and art criticism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 311/3.0 Gender and Modernism
A study of gender in relation to modern visual culture from the mid-nineteenth to the mid-twentieth centuries using theoretical frameworks drawn from feminist art history and gender studies. Topics to be studied include fashion and modernity, consumer culture, gendered and transgendered artistic identities, and the gendering of Modernism.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION ARTH 226/3.0 and ARTH 228/3.0.
PREREQUISITE Level 3 or above.

ARTH 312/3.0 Quattrocento Painting
An examination of selected topics in 15th-century Italian Renaissance painting.
LEARNING HOURS 126 (24L;12G;90P)
RECOMMENDATION ARTH 214/3.0 and ARTH 215/3.0.
PREREQUISITE Level 3 or above.

ARTH 316/3.0 Special Topics in Renaissance Art and Architecture in Britain
A study of Renaissance art and architecture through examples found in Britain and British collections.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L6S;24T;18GL;6I;12O;9OC;24P)
PREREQUISITE Level 3 or above.

ARTH 319/3.0 Art in the Age of the Internet
This course examines the impact of networked and digital technologies on the production, display and reception of global contemporary art. From artists' experiments with computers in the late 1960s to the post-internet and algorithmic art of the 21st century, students will be introduced to key practices, technologies, theories and debates.
LEARNING HOURS 120 (18L;18G;84P)
PREREQUISITE Level 3 or above.

ARTH 321/3.0 European Art, 1789-1859: Revolution to Evolution
A study of European art and sculpture of the early nineteenth century in its political, social and scientific contexts. Topics may include revolutionary painting and caricature, national romanticism, orientalism and empire, realism and popular culture, universal exhibitions, and the interplay of art and modern science.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 324/3.0 French Art and Its Reception, 1855-1912
A study of late nineteenth- and early twentieth-century French art in its changing institutional, social and art historical contexts. Topics may include the institutions of exhibiting and artistic training, the art market, modernity, the new Paris, impressionism and sensation, the decorative, the cult of the self, primitivism and colonialism.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 325/3.0 Decoding Dress of the Nineteenth Century
This course explores fashion and its representation in art in the nineteenth century. Through an analysis of objects, paintings, and other media, we will examine how visual culture might inform our interpretation of the material world, and how a study of dress might expose the "fugitive meanings" in nineteenth-century art.
Recommended: ARTH 226/3.0
LEARNING HOURS 120 (24L;12G;12O;72P)
PREREQUISITE Level 3 or above or permission of the Department.

ARTH 336/3.0 British Landscape Art
An examination of selected visual representations of the British landscape, from 18th-century paintings to recent developments in a variety of media such as sculpture and earthworks. Issues of national identity, collecting and exhibiting will be addressed.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L;6S;24T;18GL;12O;9OC;24P)
PREREQUISITE Level 3 or above.

ARTH 339/3.0 Canadian Art in the Twentieth Century
Selected problems in the development of Canadian painting and sculpture in the modern period.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 340/3.0 Aspects of Contemporary Art in Canada
An examination of a range of historical conditions that have encouraged and challenged the growth of a visual and media arts practice in Canada since the mid-1950s.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 341/3.0 Photography and Society
An introduction to the processes, practices and histories of photography; the changing topics address its interpretation and application since the 1840s.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 342/3.0 Photography in Canada 1839-1939
Through lectures, readings, and research, this course explores the nature, practice, and impact of photography in Canada between 1839 and 1939. By examining how the new medium was used to confirm, complement, and contest older forms of aesthetic expression, written documentation, or visual evidence, it traces the role of photography in Canadian society during this critical period of Canadian nation building.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 345/3.0 Italian Art of the High Renaissance
The sources of High Renaissance art will be examined and special attention will be given to the works of Leonardo, Raphael and Michelangelo, up to about 1520.
LEARNING HOURS 126 (24L;12G;90P)
RECOMMENDATION ARTH 214/3.0 and ARTH 215/3.0.
PREREQUISITE Level 3 or above.

ARTH 346/3.0 Sculpture, Gender, and the Body in the Italian Renaissance
This course will examine the sculptures and filled Italian cities from the fourteenth to the sixteenth centuries, some heroic, others pathetic or erotic. We will explore how sculptures worked with a variety of materials to bring to life effigies of diverse bodies, in relation to renaissance debates about gender, sex, religion, class, and politics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above or permission of the department.

ARTH 347/3.0 Mannerism
Painting and sculpture in the period following the High Renaissance will be examined, with emphasis placed on the emergence and meaning of mannerism in Florence and Rome.
LEARNING HOURS 126 (24L;12G;90P)
RECOMMENDATION ARTH 214/3.0 and ARTH 215/3.0.
PREREQUISITE Level 3 or above.

ARTH 348/3.0 Arts of the Arctic
A study of the arts and visual culture of the Indigenous peoples of the northern circumpolar region encompassing Alaska, Canada, and Greenland, with a main focus on Dorset, Thule, and post-1950 Inuit arts. Students will examine the development of modern Inuit art markets, including reception, promotion, and circulation in the south.
LEARNING HOURS 120 (24L;12S;84P)
RECOMMENDATION ARTH 248/3.0.
PREREQUISITE Level 3 or above.

ARTH 350/3.0 Propoganda and Visual Culture: From the Altar to the X-Box
This course will examine the ways in which visual culture can function as social, political or religious propaganda. With reference to examples produced from c.1600 to the present, it will deal with a variety of media and the ways in which developments in technology contribute to the spread of propaganda.
NOTE Only offered online
LEARNING HOURS 120 (36O;84P)
PREREQUISITE Level 3 or above.

ARTH 352/3.0 Printmaking in Early Modern Europe
A chronological survey of the history of printmaking in Western Europe from its beginnings in the 15th century to the Industrial Revolution. Topics include the cultural impact of the reproducible image, the development of woodcut, engraving, etching and lithography, and the achievements of printmakers such as Dürer, Goltzius, Callot, Rembrandt, Hogarth and Goya.
LEARNING HOURS 126 (24L;12G;90P)
RECOMMENDATION ARTH 253/3.0.

PREREQUISITE Level 3 or above.

ARTH 353/3.0 Flemish Baroque Art
A detailed study of painting and related arts in Flanders (present-day Belgium) in the 17th century, with emphasis on the achievements of artists such as Rubens, Van Dyck, and Jordaens.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION ARTH 253/3.0.
PREREQUISITE Level 3 or above.

ARTH 354/3.0 Age of Rembrandt
A detailed study of painting and related arts in the Netherlands, ca.1580-1700. Developments in style and the growth of subject types such as genre, portraiture, landscape, and still life are examined in the cultural context of life in the Dutch Republic, with particular attention to the achievements of artists such as Rembrandt, Hals, and Vermeer.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION ARTH 253/3.0.
PREREQUISITE Level 3 or above.

ARTH 369/3.0 Architecture of the Renaissance Period
Theory and practice of architecture and town planning from the 15th to the late 16th centuries in Italy and elsewhere in Europe.
LEARNING HOURS 126 (24L;12G;90P)
PREREQUISITE Level 3 or above.

ARTH 370/3.0 Architecture of the Baroque Period
Baroque and Rococo architecture and urbanism of Europe and beyond including Italy, France, Iberia, Central and Eastern Europe, Scandinavia, New Spain (Mexico), Peru, Brazil, India, Macau, Philippines. Includes Italian *bel composto*, impact of theater, salon culture in Paris, indigenous contributions outside Europe, ephemera, gardens.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 372/3.0 Art of Colonial Latin America
Considers art, architecture, and ephemera in Colonial Latin America (1492-1820) with particular attention to the aboriginal contribution to visual culture and built environment and the impact of multiculturalism (Africans, Asians, mestizos, Europeans of various nationalities).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 373/3.0 15th-Century Netherlandish Painting
This course surveys painting in the geographic area of the Low Countries, now roughly the kingdoms of Belgium and the Netherlands, between 1400 and 1500.
LEARNING HOURS 120 (36L;84P)
EXCLUSION(S) *ARTH 375/3.0*
PREREQUISITE Level 3 or above
EQUIVALENCY *ARTH 375/3.0*

ARTH 374/3.0 16th-Century Netherlandish Painting
This course surveys painting in the geographic area of the Low Countries, now roughly the kingdoms of Belgium and the Netherlands, between 1500 and 1600.
LEARNING HOURS 120 (36L;84P)
EXCLUSION(S) *ARTH 375/3.0*
PREQUISITE Level 3 or above
EQUIVALENCY *ARTH 375/3.0*

ARTH 380/6.0 Venice and its Biennale: Global Circuits of Contemporary Art
A four-week travel study course that gives students the opportunity to experience the Venice Biennale first hand. Through onsite and experiential learning at the Biennale and other arts institutions in Venice, students will study the production, display and circulation of global contemporary art.

NOTE Students must pay a $4,000.00 course for this course. The course fee covers accommodation, five group meals, public transit in Venice, entrance to all museums and galleries included on the syllabus, and passes for the Venice Biennale. Cost of travel and daily meals must also be paid by the student.
LEARNING HOURS 224 (75L;12S;56Pc;36G;45P)
PREREQUISITE 6.0 units in ARTH.

ARTH 383/3.0 The City
This course examines the phenomenon of the city, a settlement of high density that has, throughout history, offered many distinctive social and cultural experiences. The focus of this course will be urban art, architecture, planning, and material culture, and their relationship to those experiences. Specific urban case studies, Western and non-Western, will provide the foundation for our study.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 390/3.0 Writing Art History Today
An examination of the history of the discipline and the epistemological assumptions underpinning art historical research and writing in the past and present.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

ARTH 391/3.0 Art Forgeries
This course examines forgeries of art and their impact on society through an interdisciplinary approach taking into consideration history, economics, law, and science.
LEARNING HOURS 120 (24L;12G;84P)
PREREQUISITE Level 3 or above.

ARTH 395/3.0 Internship
Students in Art History and Fine Art can apply to take a practical internship in a museum or gallery, where they would undertake research or curatorial activities. All internships must be approved in advance by written application to the Undergraduate Chair. Approval will depend on the quality of the proposal and the academic record of the applicant. Students are required to write a report about their experience and are evaluated jointly by the employer and a faculty member from the Department of Art. It is the responsibility of students to arrange internships.
NOTE Depending on location, substantial travel and subsistence costs may be involved.
LEARNING HOURS 130 (100Pc;30P)
PREREQUISITE Level 3 or above and registration in an ARTH or ARTF Major or Medial Plan and permission of the Department.

ARTH 399/3.0 The English Country House
Selected studies of the English Country house, its architecture, landscape gardens, interior design, and contents.
NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
LEARNING HOURS 129 (30L;6S;24T;18GL;6I;12O;9OC;24P)
PREREQUISITE Level 3 or above.

ARTH 401/3.0 Studies in Iconography
The study of a selected theme within the subject matter of Western art, concentrating on its changing modes of representation in response to historical and artistic circumstances.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 402/3.0 Studies in Renaissance Painting Technique
An in-depth study of Renaissance painting techniques in Italy and/or Northern Europe. Selected issues of technique and conservation will be examined within a broader art-historical framework.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 403/3.0 Hacking the Museum
This project-based seminar explores the interface of digital technologies, museums, and cultural heritage interpretation. Students build practical knowledge and theoretical understandings around technology, audience interpretation and knowledge creation.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 404/3.0 Conservation Principles
A general survey course dealing with various aspects of conservation and museology. The course deals with professional ethics, control of the factors causing deterioration and with preventive conservation including care in handling, transporting, and storing cultural property. Open to upper-year undergraduate students with permission of the Department.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 405/3.0 Cultural Heritage Preservation
An investigation of how cultural heritage has been preserved in different parts of the world in the past and the present, focusing on methods used to ameliorate or prevent damage and destruction caused by the environment, war, looting and restoration. Case studies will be drawn from the UNESCO World Heritage list.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 410/3.0 Studies in the History of Textiles and Dress
Studies in the textiles and dress of selected periods with a focus upon visual culture and/or material culture.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 415/3.0 Topics in Medieval Art History
A detailed study of one area or topic in the history of medieval European art.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 419/3.0 Studies in Experimental and New Media Art
A seminar/practicum course that focuses on the development of new and experimental media arts since the 1960s.
LEARNING HOURS 126 (18S;18Pc;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 420/3.0 Art and Activism
An examination of both modern and postmodern contemporary art as activism sampled from Western and non-Western practices. The chronological period of study is from the end of the 1960s to the present. Theoretical frameworks to be used include social movement theory, postcolonial theory, and critical museum studies.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 421/3.0 Topics in Modern Art
A detailed study of one area or topic in the history of early 20th-century art.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 422/3.0 Topics in Contemporary Art
A detailed study of one area or topic in contemporary art
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 425/3.0 House: Studies in the History of an Idea
This course considers the house as a central typology in the history of architecture and will explore it in its fullest theoretical and literary contexts. We consider the house as an idea and a material whole, including the art that it housed, the functions and performances that it staged, and the patrons, architects and designers that created it.

LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 429/3.0 Topics in 19th-century Art
A detailed study of one area or topic in the history of 19th-century art.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 433/3.0 Art, Tourism and Modernity
An examination of the relationship of art and tourism. Topics include the role of tourism in the creation of tourist, Folk and Primitive art, souvenir and craft; the relationship of museums and cultural tourism to the rise of global capitalism; the ways in which art in a tourism economy participates in the politics of identity and representation.
LEARNING HOURS 120 (36S;12G;12I;60P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 434/3.0 Non-Western Art in Western Collections
A consideration of the history of collecting and public collections; of museum policy and practice; and of Western notions of art and culture as they are applied in the museum to non-Western art.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 435/3.0 Art History Theory and Methods
This course examines a range of theoretical approaches used currently in art historical scholarship, including Marxism, gender theory, psychoanalysis, structuralism, poststructuralism, and postcolonialism.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 436/3.0 Anthropological Theory and Art History
This course will examine a range of theories from anthropology , which offers an number of concepts for exploring the social in the visual, material, and spatial world. We will assess the potential roles of this theory for art historical analysis.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 438/3.0 Studies in Indigenous Arts and Visual Culture in North America
This seminar offers an in-depth study of a topic in North American Indigenous arts and visual culture, including theoretical and methodological readings.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 442/3.0 Critical Writing on Photography: Meaning and Practice
This seminar focuses on historical and contemporary critical writing to explore historical and contemporary perspectives on the nature, theory, and practice of photography. It is a course about ideas rather than images - ideas about photographs, about looking at photographs, and about reading photographs - ideas that have governed the way we look at, respond to, and draw meaning from photographs.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 446/3.0 Topics in Northern Renaissance and Baroque Art
A detailed study of one artist or theme in the visual culture of northern Europe, primarily The Netherlands and/or Germany. Topics may focus on the Renaissance and/or Baroque era (ca. 1400-1750).
LEARNING HOURS 126 (36S;90P)
RECOMMENDATION (ARTH 214/3.0 and ARTH 215/3.0) or ARTH 353/3.0 or ARTH 354/3.0 or *ARTH 375/3.0*; ARTH 373/3.0; ARTH 374/3.0
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 451/3.0 Caravaggio and Artemisia
Explores Caravaggio, Artemisia Gentileschi and contemporaries in Baroque Italy. Considers issues such as naturalism/idealism, patronage, populist piety, gender. One of the goals is to look at the ways in which these artists' personalities have been projected onto their work by scholars, essayists, novelists, and filmmakers.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 460/3.0 Curatorial Studies
This seminar, held at the Agnes Etherington Art Centre, integrates historical, theoretical, and practical approaches to contemporary curatorial issues.
LEARNING HOURS 126 (18S;18Pc;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 472/3.0 Art and Global Encounter in Asia, the Americas and Africa, 1492-1850
An assessment of hybrid art focusing on the period of European evangelization of non-European civilizations, 15th-19th c., a global encounter involving the widest spectrum of peoples, races, cultures, and religions. Will consider the transformation of the arts of Early Modern Europe in contact situations in Asia, Africa, Latin America, and Quebec.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 482/3.0 Gothic Sculpture
A study of the evolution of Gothic sculpture from the mid-12th century to the 15th century. Topics will range from the elaborate sculptural programs of great cathedrals to the work of Claus Sluter and other major sculptors of the late Middle Ages.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 485/3.0 A Social and Material History of Italian Renaissance Sculpture
The course will explore the diverse materials used for sculpture (marble, bronze, wood, clay, wax, etc.) and their social functions - how sculptures were a part of cult practices, dressing sculptures, speaking statues, miraculous sculptures, iconoclasm, reliquaries, and domestic objects.
LEARNING HOURS 120 (36S;12O;72P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 486/3.0 16th-Century Painting in Venice
An examination of selected topics in the painting of Venice and the Veneto.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 490/3.0 Topics in Word and Image
The study of how words and images interact in visual and material culture. Topics may vary to address a selected theme, historical period, artist, movement, or art form, such as: illustrated books or manuscripts; art as inspiration for literary works or vice versa; scientific and technical illustration; words as images; film; digital media.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 492/3.0 Studies in the Literature of Art
The detailed, analytic study of a selected body of texts within the literature of art, directed towards gaining an understanding of the dominant theories, critical attitudes, or historical perspectives on art during a particular period.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 494/3.0 Topics in Baroque Art
A study of selected topics in the art of the 17th century.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ARTH 496/3.0 Studies in the History of Prints and Drawings

A detailed study in the history of prints and drawings.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in an ARTH Major or Medial Plan and a GPA of 1.9 and 24.0 units in ARTH.

ASCX 101/3.0 Learning and Working in a Digital World

The future is uncertain. Information is expanding at an exponential rate. Jobs that were formerly done by humans are being taken over by artificial intelligence and automation. This course will ask what it means to be a human learner and worker in a rapidly changing digital world. Students will develop a transferable and flexible toolbox of skills.

LEARNING HOURS 120(12T;12G;48O;48P)

PREREQUISITE Registration in an Arts and Science Degree Plan

ASCX 200/3.0 Dean's Changemaker Challenge: Collaborative Problem Solving

This course is part of the Dean's Changemaker Challenge. It is dedicated to preparing students to identify- a real-world problem and to implement their solution to a problem. Successful completion of this course will provide access to ASXC 300 where students will have the opportunity to execute on the real-world implementation of their solution.

LEARNING HOURS 120(36T;24G;24O;36P)

PREREQUISITES Level 2 or above and Registration in an Arts and Science Degree Plan

EXCLUSION(S) ASCX 200 may not be taken before ENIN 200 (Foundations of Entrepreneurship)

ASCX 300/3.0 Dean's Changemaker Challenge: Implementation Strategies

This course is part of the Dean's Changemaker Challenge. Students from this course will have successfully completed ASCX 200 to advance into ASCX 300. The course is dedicated to the implementation of their solution to a problem (identified in ASCX 200). The majority of the work done in this course will be group work in a interdisciplinary team.

LEARNING HOURS 120(36T; 36G;24O;24P)

PREREQUISITES ASCX 200/3.0 and Registration in an Arts and Science Degree Plan

ASCX 400/3.0 Interdisciplinary Client-based Project

Multi disciplinary teams of engineering, commerce, law, science, social science, and humanities students undertake consulting projects with industrial, government and not-for-profit clients. Projects will encompass topics based on societal and industry interests (such as social innovation, process improvement, business strategy, environment etc.)

LEARNING HOURS 120(36T; 24G;24O;36P)

PREREQUISITES Level 4 and Registration in an Arts and Science Degree Plan

EXCLUSION FEAS 400

ASTR 101/3.0 Astronomy I: The Solar System

A non-mathematical introduction to the science of astronomy for non-specialist students. Topics to be covered include the fundamentals of astronomy; and introduction to the tools and techniques of modern observational astronomy; the historical development of our understanding of the Earth, Moon, and Solar System; space exploration of Mars, Jupiter, and other planets; the nature of the Sun; and the origin and uniqueness of our Solar System.

NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.

LEARNING HOURS 120 (36L;24O;60P)

EQUIVALENCY *PHYS P15/3.0*.

ASTR 102/3.0 Astronomy II: Stars, Galaxies, and the Universe

This course, intended for non-specialist students, will provide an overview of astronomy beyond the Solar System. Topics will include: the formation, nature, and evolution of the stars; stellar deaths, including novae, supernovae, white dwarfs, neutron stars, pulsars, and black holes; the interstellar medium; the Milky Way Galaxy; normal and active galaxies and large scale structure in the universe; and modern ideas in cosmology and the early universe.

NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.

LEARNING HOURS 120 (36L;24O;60P)

EQUIVALENCY *PHYS P16/3.0*.

PREREQUISITE ASTR 101/3.0 or PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0 or PHYS 118/6.0 or (APSC 111/3.0 and APSC 112/3.0) *or PHYS P15/3.0* or permission of the Department.

BCHM 218/3.0 Molecular Biology
Molecules and macromolecules that participate in the replication and expression of genes. Current methods for exploring the structure, function, and manipulation of genetic material.
NOTE Also offered online. Consult the Bachelor of Health Sciences program office. Learning Hours may vary.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Minimum 2nd year (Level 2) standing and one of (BIOL 102/3.0; PHGY 170/3.0) and one of (CHEM 112/6.0; CHEM 114/3.0)

BCHM 270/3.0 Biochemical Basis of Health and Disease
This course will introduce general biochemical concepts that will allow for an understanding of the biological and chemical principles underlying human physiology, health and disease. The course will provide self-paced learning and utilize evidence-based teaching principles, small group learning, peer-learning and guided-independent learning methodologies to provide an inclusive learning environment. Students will gain an enhanced appreciation of general applications of biochemistry as applied in day to day healthy life and during the disease states, diagnosis and clinical management of metabolic disorders.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
NOTE This introductory biochemistry online course is intended for prospective students in Nursing, Environmental Sciences, Engineering, Commerce, and general science programs.
NOTE May not be taken for credit towards the Plan requirements of the BCHM or LISC Specialization or Major Plans.
LEARNING HOURS 126 (66O;60P)
PREREQUISITE Level 2 or above and [(4U Biology and PHGY 170/3.0) or (BIOL 102/3.0 and BIOL 103/3.0)] or permission of the Department.
EXCLUSION(S) BCHM 102/3.0
ONE-WAY EXCLUSION May not be taken with or after BCHM 310/9.0; BCHM 315/3.0.

BCHM 310/9.0 General Biochemistry
Principles of protein biochemistry, enzymology, and protein engineering. Metabolism of carbohydrates, amino acids and lipids. Role of coenzymes. Generation and storage of metabolic energy. Principles of regulatory mechanisms, membrane structure and function, hormone action, and cellular signaling.
NOTE Students lacking the prerequisites CHEM 222/3.0 or CHEM 282/3.0 may take these courses as a corequisite with permission of the Department.
LEARNING HOURS 348 (72L;36Lb;240P)
PREREQUISITE Level 3 or above and BCHM 218/3.0 and [(CHEM 222/3.0 and CHEM 223/3.0) or CHEM 282/3.0].
EXCLUSIONS No more than 9.0 units from BCHM 102/3.0; BCHM 310/9.0; BCHM 315/3.0; BCHM 316/3.0

BCHM 313/3.0 Molecular Biochemistry
This course will provide an in depth view of the molecular mechanisms controlling how genes are organized, regulated and expressed in mammalian cells. Once you understand how proteins are made, you will learn a variety of approaches to visualize and measure proteins and enzymatic activities in mammalian cells.
NOTE If you have taken or are currently registered in BCHM 310/9.0 you may contact the department for permission to enroll.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and BCHM 315/3.0.

BCHM 315/3.0 Proteins and Enzymes
Principles of protein biochemistry, enzymology, and protein engineering.
NOTE Students lacking the prerequisites CHEM 222/3.0 or CHEM 282/3.0 may take these courses as a corequisite with permission of the Department.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE Level 3 or above and BCHM 218/3.0 and [(CHEM 222/3.0 and CHEM 223/3.0) or CHEM 282/3.0].
EXCLUSIONS BCHM 102/3.0; BCHM 310/9.0

BCHM 316/3.0 Metabolism
Metabolism of carbohydrates, amino acids and lipids. Role of coenzymes. Generation and storage of metabolic energy. Principles of regulatory mechanisms, membrane structure and function, hormone action, and cellular signaling.
LEARNING HOURS 122 (36L;8O;78P)
PREREQUISITE BCHM 315/3.0.
EXCLUSIONS BCHM 102/3.0; BCHM 310/9.0

BCHM 317/6.0 Introductory Biochemistry Laboratory
Application of separation and assay techniques to the study of proteins, metabolism and molecular biology. Attendance required in both terms. Enrolment will be limited because of laboratory constraints, and selection will be based on academic standing.
LEARNING HOURS 360 (96Lb;264P)
PREREQUISITE Registration in a BCHM Specialization or Major Plan.
COREQUISITE BCHM 315/3.0 and BCHM 316/3.0.
EXCLUSIONS BCHM 319/3.0.
EQUIVALENCY BCHM 319/3.0.

BCHM 319/3.0 Intro Biochemistry Laboratory
Application of separation and essay techniques to the study of proteins, metabolism and molecular biology.
NOTE This course is for outgoing Biochemistry Honours exchange students who are not able to obtain the equivalent of BCHM 317/6.0 when on exchange.
LEARNING HOURS 180 (48Lb;132P)
COREQUISITE BCHM 315/3.0 or BCHM 316/3.0.
EXCLUSION(S) BCHM 317/6.0
EQUIVALENCY BCHM 317/6.0.

BCHM 370/3.0 Genetics and Genomics
An introduction to the field of applied genomics for identifying genes underlying multi-factorial traits, diseases, and drug treatment outcomes. Basic principles of gene mapping studies will be covered in the context of recent advances in the field including statistical methods, and integrative analyses of biological datasets.
NOTE Only offered online
LEARING HOURS 120(48O;72P)
PREREQUISITE Level 3 or above and one of (BCHM 218/3.0; BCHM 270/3.0; BIOL 205/3.0)
EXCLUSIONS BIOL 331/3.0
EQUIVALENCY *BMED 370/3.0*

BCHM 410/3.0 Protein Structure and Function
This course presents an integrated approach to the study of protein function. Topics include proteomic techniques, mass spectrometry, protein purification, imaging, surface plasmon resonance, calorimetry, bioinformatics and protein evolution, protein modifications and processing, interpretation and applications of 3-D structure, and structure-function relationships.
NOTE Offered jointly with BMED 810/3.0. Students in a LISC or BMCO Plan should contact the Department regarding prerequisites and permission to register.
LEARNING HOURS 114 (30L;6S;6Lb;6Pc;12G;6I;6O;42P)
PREREQUISITE Level 4 and registration in a BCHM Specialization or Major Plan and (a GPA of 2.5 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 411/3.0 Advanced Molecular Biology
This course concentrates on the molecular biology of mammalian models particularly mechanisms involved in human diseases. The human genome project, forensic analysis, DNA diagnostics of human diseases, models of transcriptional and growth regulation and cancer, DNA repair, RNA processing and translation are all discussed. Emphasis on recent findings and course materials will be drawn from current reviews.
NOTE Offered jointly with BMED 811/3.0. Students in a LISC or BMCO Plan should contact the Department regarding prerequisites and permission to register.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in a BCHM Specialization or Major Plan and (a GPA of 2.5 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 421/6.0 Advanced Biochemistry Laboratory I
Biochemical research techniques with emphasis on nucleic acids, protein structure and function, regulation of gene expression and metabolic control processes.
NOTE 6.0-unit course offered in the Fall Term.
LEARNING HOURS 222 (6S;144Lb;24I;6O;42P)
PREREQUISITE Level 4 and registration in a BCHM Specialization Plan and (a GPA of 2.9 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 422/6.0 Advanced Biochemistry Laboratory II
An independent research project by each student in one of the departmental research labs. Evaluation is based on oral presentation, lab performance and a thesis.
NOTE 6.0-unit course offered in the Winter Term.
LEARNING HOURS 222 (6S;144Lb;24I;6O;42P)
PREREQUISITE Level 4 and registration in a BCHM Specialization Plan and (a GPA of 2.9 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 432/3.0 The Molecular Basis of Cellular Function
Principles of regulatory mechanisms; regulation of cellular function and growth by oncogenes, growth factors, isoprenoids and steroid hormones. Receptors, second messengers and protein phosphorylation. Correlation of cell ultrastructure with biochemical function. Description of the components, assembly, metabolism and evolution of cellular structures are described.
NOTE Offered jointly with BMED 832/3.0. Students in a LISC Plan should contact the Department regarding prerequisites and permission to register.
LEARNING HOURS 120 (30L;6G;84P)
PREREQUISITE Level 4 and registration in a BCHM Specialization or Major Plan and (a GPA of 2.5 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 441/3.0 Current Topics in Biochemistry
Tutorials, assignments and demonstrations in important subjects in biochemistry emphasizing topics of broad interest. Particular emphasis will be paid to the applications of biochemical knowledge and new technologies.
NOTE Students in the BCHM Specialization Plan registered in BCHM 421/6.0 and BCHM 422/6.0 will not be allowed to register in BCHM 441/3.0; Students in the LISC Specialization Plan registered in one of ANAT 499/12.0, CANC 499/12.0, EPID 499/12.0, LISC 499/12.0, MICR 455/6.0, MICR 499/12.0, NSCI 499/12.0, PATH 499/12.0, PHAR 499/12.0 or PHGY 499/12.0 will not be allowed to register in BCHM 441/3.0.
LEARNING HOURS 120 (21L;9S;3G;3Oc;84P)
PREREQUISITE Level 4 and registration in a BCHM Major Plan and (a GPA of 2.5 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 442/3.0 Seminars in Biochemistry
Seminars, assignments and demonstrations focused on important subjects in biochemistry, emphasizing the scientific pipeline, from discovery to commercialization. Particular emphasis will be placed on applications of biochemical knowledge and new technologies.
NOTE Students in the BCHM Major Plan registered in BCHM 441/3.0 will not be allowed to register in BCHM 442/3.0.
LEARNING HOURS 120 (18S;18G;84P)
PREREQUISITE Level 4 and registration in a BCHM Specialization Plan and (a GPA of 2.7 in 12 units of BCHM 218/3.0; BCHM 313/3.0; BCHM 315/3.0; BCHM 316/3.0; BCHM 317/6.0).

BCHM 482/3.0 Proteomics and Metabolomics
This course will focus on the principles of proteomics and metabolomics and their application in the new systems biology 'omics' approach to scientific discovery. This course will emphasize both the methodologies used in proteomics and metabolomics, as well as their applications in both research, medical diagnostics, and disease management.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
LEARNING HOURS 114 (36O;78P)
PREREQUISITE {Level 4 and [BCHM 310/9.0 or (BCHM 315/3.0 and BCHM 316/3.0)]} or (Level 4 and registration in a Bachelor or Health Sciences program and BCHM 218/3.0 and BCHM 270/3.0 and BMED 370/3.0 or Level 4 and [BCHM 310/9.0 or(BCHM 315/3.0 and BCHM316/3.00)]} a GPA of 2.5 and (registration in a LISC Major or Specialization Plan).
EQUIVALENCY *BMED 482/3.0*

BIOL 102/3.0 Introductory Biology of Cells
An introduction to the basic themes and concepts of modern biology spanning organizational levels from molecules to cells in an evolutionary context.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 111 (24L;6Lb;9G;12O;60P)
RECOMMENDATION 4U Biology and Chemistry, or equivalent high school background, are highly recommended.

BIOL 103/3.0 Introductory Biology of Organisms
An introduction to the basic themes and concepts of modern biology spanning organizational levels from organisms to ecosystems in an evolutionary context.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 123 (36L;24Lb;24O;39P)
RECOMMENDATION BIOL 102/3.0.

BIOL 110/3.0 Human Genetics and Evolution
Introductory genetics and evolutionary processes as they relate to the human condition - genetic diseases, medical techniques, inheritance and ethical issues such as cloning and genetically modified foods.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 118 (26L;10T;10G;36O;36P)
ONE-WAY EXCLUSION May not be taken with or after BIOL 102/3.0; BIOL 103/3.0.

BIOL 111/3.0 Ecology and the Environment
Introduces the basic concepts of ecology and shows how they relate to environmental issues such as population growth, resource management, biodiversity, agriculture, air and water pollution, energy, and climate change, and to solutions leading to a sustainable environment.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 108 (36L;72P)
ONE-WAY EXCLUSION May not be taken with or after BIOL 300/3.0; *BIOL 302/3.0*; *BIOL 303/3.0*.

Admission to 400- and 500-level Biology Courses
Admission to 400- and 500-level Biology courses requires a minimum cumulative GPA of 2.0 in any previously taken courses from the Biological Foundations List (BIOL_FNDS) regardless of Degree Plan. Requests for special consideration must be submitted to the Chair of Undergraduate Studies.

BIOL_FNDS
BIOL 102/3.0; BIOL 103/3.0; BIOL 200/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*; BIOL 205/3.0; BIOL 206/3.0; BIOL 212/3.0; BIOL 300/3.0; BIOL 330/3.0; BIOL 334/3.0; BIOL 339/3.0; BIOL 341/3.0; *BIOL 302/3.0*; *BIOL 303/3.0*

BIOL 200/3.0 Diversity of Life
This course provides a phylogenetically based overview of biodiversity across the Tree of Life including viruses, archaea, bacteria, algae, fungi, plants, invertebrates and vertebrates. Patterns of organizational complexity and species diversity are explained in the context of evolutionary processes, structure-function relationships and ecology.
NOTE Textbook and onQ course site for distributing reading material.
LEARNING HOURS 120(36L;18T;18O;48P)
RECOMMENDATION BIOL 102/3.0 and BIOL 103/3.0.
EXCLUSION(S) *BIOL 201/3.0*; *BIOL 202/3.0*
EQUIVALENCY *BIOL 201/3.0* and/or *BIOL 202/3.0*.

BIOL 205/3.0 Mendelian and Molecular Genetics
An introduction to Mendelian and molecular genetics covering the basic mechanisms of genetic transmission, gene structure and function, as well as the application of molecular genetics in medicine and biotechnology.
LEARNING HOURS 120 (36L;18T;18O;48P)
PREREQUISITE A GPA of 1.90 in BIOL 102/3.0 and BIOL 103/3.0.

BIOL 206/3.0 Evolutionary Genetics
An introduction to the genetic mechanisms of population differentiation and evolutionary change - from molecules to species. The genetical theory of evolution is also applied to problems involving conservation, biotechnology and the evolution of disease.
NOTE Priority to BIOL concentrators will be given during course selection.
LEARNING HOURS 120 (36L;18T;18O;48P)
RECOMMENDATION (BIOL 200/3.0 or *BIOL 201/3.0* and *BIOL 202/3.0*)
PREREQUISITE A minimum grade of C- in BIOL 205/3.0.

BIOL 212/3.0 Scientific Methods in Biology
A hands on laboratory course that establishes the fundamentals of scientific investigation and applies then to selected biological questions. Students will learn to develop hypotheses, design and execute experiments, and to analyze and present results. There will be four modules structured as: Cell, Organism, Population and Ecosystem.
NOTE QUBS Field Trip. Estimated cost $35.
NOTE Blended learning, online material and hands on activities in the lab.
LEARNING HOURS 122(8L;66Lb;24O;24P)
PREREQUISITE A GPA of 1.90 in (BIOL 102/3.0 and BIOL 103/3.0).

BIOL 243/3.0 Introduction to Statistics
An introduction to the analysis of data from real life situations. Covers study design, descriptive and inferential statistics. Topics include probability, t-tests, regression, Chi-square tests, analysis of variance. Emphasis is in the foundation of statistical inference and practical application of statistical methods using statistical software.
LEARNING HOURS 120 (36L;12T;72P)
EXCLUSION(S) CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0.
ONE-WAY EXCLUSION May not be taken with or after STAT 269/3.0.

Admission to 400- and 500-level Biology Courses
Admission to 400- and 500-level Biology courses requires a minimum cumulative GPA of 2.0 in any previously taken courses from the Biological Foundations List (BIOL_FNDS) regardless of Degree Plan. Requests for special consideration must be submitted to the Chair of Undergraduate Studies.

BIOL_FNDS
BIOL 102/3.0; BIOL 103/3.0; BIOL 200/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*; BIOL 205/3.0; BIOL 206/3.0; BIOL 212/3.0; BIOL 300/3.0; BIOL 330/3.0; BIOL 334/3.0; BIOL 339/3.0; BIOL 341/3.0; *BIOL 302/3.0*; *BIOL 303/3.0*

BIOL 300/3.0 Ecology
Covers the major concepts at the scales of individual life history, population, communication and ecosystem. This includes life history strategies, population regulation, species interactions, community structure, elemental cycles and energy flow. Includes field and lab activities with collection, analysis and interpretation of ecological data.
NOTE Field trip: estimated cost $50.
LEARNING HOURS 110(36L;24Lb;6Oc;44P)
EQUIVALENCY *BIOL 302/3.0* and/or *BIOL 303/3.0*.
PREREQUISITE BIOL 206/3.0 and (3.0 units from BIOL 200/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*).
COREQUISITE BIOL 243/3.0 or PSYC 202/3.0 or STAT 269/3.0.
EXCLUSION(S) *BIOL 302/3.0*; *BIOL 303/3.0*

BIOL 307/3.0 Field Biology I
Two weeks of field work plus written assignments in one or two areas of study to be done when specialized modules are available in May, July, August or February. Studies may include ecology of birds, fish, insects, small mammals, plants, tundra and taiga, lakes and caves.
NOTE Field trip: estimated cost of each module and the schedule of offerings for each year are available in January.
PREREQUISITE BIOL 102/3.0 and BIOL 103/3.0 and (registration in a BIOL Major, BIOL Science Minor/General, BIMA Specialization, BIPS Specialization, BTEC Specialization, or EBIO Specialization Plan).

BIOL 315/3.0 Plants and Human Culture
Human civilization depends on plants. We have changed them and they have changed us. This course investigates the biology and evolution of valuable economic plants, the science of plant domestication and genetic manipulation, and how our interactions with plants have altered the economy, politics, and sociology of human civilization.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE BIOL 102/3.0 and BIOL 103/3.0

BIOL 316/3.0 Fisheries Biology
An introduction to the basic principles of fisheries biology and examination of the biological foundations of current problems affecting the world's fisheries, with an emphasis on developing sound science-based strategies to resolve these problems.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE BIOL 103/3.0 and (BIOL 200/3.0 or *BIOL 202/3.0*).

BIOL 317/3.0 Field Biology II
Two weeks of field work plus written assignments in one or two areas of study to be done when specialized modules are available in May, July, August or February. Studies may include ecology of birds, fish, insects, small mammals, plants, tundra and taiga, lakes and caves.
NOTE Field trip: estimated cost of each module and the schedule of offerings for each year are available in January.
PREREQUISITE BIOL 307/3.0. Prior to registering in the course students must complete the application process, be placed in a module and complete the field work.

BIOL 319/3.0 Introduction to Ethnobotany
Ethnobotany is the study of the relationships that exist between indigenous cultures and local flora. Case studies will be presented to examine the various categories of plant use, the importance of traditional knowledge to Western culture, and the role of plant conservation and cultural sustainability.
NOTE Only offered online. Consult Arts and Science Online.
RECOMMENDATION (BIOL 200/3.0 or *BIOL 201/3.0*).
PREREQUISITE BIOL 102/3.0 and BIOL 103/3.0.

BIOL 321/3.0 Animal Behaviour
An evolutionary approach to the study of animal behaviour. This course explores processes and patterns in behaviour, with emphasis on perception, communication, foraging, spacing, reproduction and social behaviour in a variety of animals. Methods of studying and analyzing behaviour are explored through laboratory exercises.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 132 (36L;12T;12I;12O;24Oc;36P)
RECOMMENDATION BIOL 200/3.0 or *BIOL 202/3.0*
COREQUISITE 6.0 units from BIOL 200/3.0; BIOL 205/3.0; BIOL 206/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*.

BIOL 322/3.0 Environmental Physiology of Animals
A comparative examination of interaction between animals and their environment including: physiological adaptations to extreme environments (e.g., arctic, desert); responses to acute and chronic environmental stress (e.g., hypoxia, temperature); environmental regulation of normal physiological processes; uses of comparative models in other fields.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE BIOL 339/3.0.

BIOL 323/3.0 Vertebrate Diversity and Evolution
Vertebrate biodiversity including characteristics and adaptations of the major classes of the living vertebrates; major environmental and geological changes associated with vertebrate evolution.
LEARNING HOURS 120 (36L;12Lb;72P)
PREREQUISITE BIOL 206/3.0 and (3 units from BIOL 200/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*)

BIOL 327/3.0 Field Biology III
Two weeks of field work plus written assignments in one or two areas of study to be done when specialized modules are available in May, July, August or February. Studies may include ecology of birds, fish, insects, small mammals, plants, tundra and taiga, lakes and caves.
NOTE Field trip: estimated cost of each module and the schedule of offerings for each year are available in January.

PREREQUISITE BIOL 307/3.0 and BIOL 317/3.0. Prior to registering in the course students must complete the application process, be placed in a module and complete the field work.

BIOL 330/3.0 Cell Biology
An introduction to the cellular basis of biological variation. The course explores the control of cell function exerted by the nucleus, the pathways for building and fueling cells, and the control of integrative cellular events.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12T;24O;48P)
PREREQUISITE BIOL 205/3.0 or BCHM 218/3.0.

BIOL 331/3.0 Analytical Genomics
This course will explore the structure of genomes and the nature and origin of gene families as well as large scale functional genomics methods for analysis of novel gene function.
LEARNING HOURS 124 (36L;12T;40O;36P)
PREREQUISITE BIOL 205/3.0 or BCHM 218/3.0.
EXCLUSION(S) BMED 370/3.0.

BIOL 333/3.0 Applied Biology
The course explores biological contributions to society in the fields of environmental assessment and management, materials and food production, and biotechnology. Emphasis is placed on understanding of applied processes in relevant service and production industries.
LEARNING HOURS 108 (36L;12T;60P)
PREREQUISITE (BIOL 200/3.0 or *BIOL 201/3.0*) and BIOL 205/3.0.

BIOL 334/3.0 Comparative Biochemistry
A survey of selected topics including: general principles of enzymology; bioenergetics; metabolism and its control; the importance of proteomic and enzyme research in functional genomics and biotechnology; mechanisms whereby animals and plants acclimate at the biochemical level to environmental stress.
NOTE Preference will be given to students registered in a Biology degree program or who require this course for their program.
LEARNING HOURS 110.4 (36L;24O;50.4P)
PREREQUISITE BIOL 103/3.0 and CHEM 112/6.0 and (BIOL 205/3.0 or BCHM 218/3.0).

BIOL 335/3.0 Limnology and Aquatic Ecology
Physics, chemistry and biology of freshwater lakes. Emphasis on: morphometry; light and temperature; water chemistry in relation to nutrients; physiological requirements; composition and interaction of algal and invertebrate populations; eutrophication; pollution; environmental change.
NOTE Field trip: estimated cost $35.
LEARNING HOURS 113 (36L;18Lb;8Oc;51P)
RECOMMENDATION 3.0 units from (BIOL 200/3.0; *BIOL 201/3.0; BIOL 202/3.0*).
PREREQUISITE CHEM 112/6.0

BIOL 339/3.0 Animal Physiology
Focus is placed on adaptive physiology and integrative function (nervous and hormonal, movement, excretion, circulation and digestion) with examples selected from various phylogenetic levels as appropriate.
LEARNING HOURS 120 (36L;18O;66P)
PREREQUISITE BIOL 205/3.0 or BCHM 218/3.0.

BIOL 341/3.0 Plant Physiology
The course examines various aspects of plant cell biology, physiology, and biochemistry including carbon and nitrogen metabolism (photosynthesis, respiration, etc.), water relations, mineral nutrition, response to environmental stress, roles of plant hormones, plant biotechnology.
LEARNING HOURS 115 (36L;10G;15O;54P)
PREREQUISITE BIOL 205/3.0 or BCHM 218/3.0.

BIOL 343/3.0 Data Analysis for Biologists
Advanced topics in using R for data management, exploratory data analysis, data visualization, and statistical analysis using the general linear model, with particular focus on statistical literacy and biological examples from both laboratory and field research.
LEARNING HOURS 120 (36L;12T;12O;60P)
PREREQUISITE BIOL 243/3.0 or PSYC 202/3.0 or STAT 269/3.0.

BIOL 350/3.0 Evolution and Human Affairs
An exploration of how evolutionary thinking can affect our understanding of our lives, our species, and our ability to share the planet with other species.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 3 or above.

BIOL 360/3.0 Biotechnology and Society
The contributions and effects of biotechnology on humanity will be explored from the perspective of their impacts on society including moral and ethical issues. Biotechnological contributions to society to be explored will include those in medicine, industry, and agriculture.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE BIOL 205/3.0 or BCHM 218/3.0.

BIOL 369/3.0 Sex and Evolution
Why sex? The evolutionary origins and consequences of sex and sexual reproduction. Topics include costs and benefits of sexual reproduction, the evolution and coevolution of sexes, gametes and genitalia, mating systems, gender differences and sex determination throughout the biotic world.
LEARNING HOURS 122 (36L;8T;18O;60P)
RECOMMENDATION BIOL 206/3.0.
PREREQUISITE BIOL 102/3.0 and BIOL 103/3.0 and (3.0 units from BCHM 218/3.0; BIOL 200/3.0; BIOL 205/3.0; BIOL 206/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*)

Admission to 400- and 500-level Biology Courses
Admission to 400- and 500-level Biology courses requires a minimum cumulative GPA of 2.0 in any previously taken courses from the Biological Foundations List (BIOL_FNDS) regardless of Degree Plan. Requests for special consideration must be submitted to the Chair of Undergraduate Studies.

BIOL_FNDS
BIOL 102/3.0; BIOL 103/3.0; BIOL 200/3.0; *BIOL 201/3.0*; *BIOL 202/3.0*; BIOL 205/3.0; BIOL 206/3.0; BIOL 212/3.0; BIOL 300/3.0; BIOL 330/3.0; BIOL 334/3.0; BIOL 339/3.0; BIOL 341/3.0; *BIOL 302/3.0*; *BIOL 303/3.0*.

BIOL 401/3.0 Experimental Approaches to Animal Physiology
Laboratory-based course emphasizing experimental approaches to understanding the principles of animal physiology covered in BIOL 339/3.0.
LEARNING HOURS 108 (36Lb;12T;60P)
PREREQUISITE A minimum GPA of 2.0 in the Biological Foundations List.
COREQUISITE BIOL 339/3.0.

BIOL 402/3.0 Experiments in Plant Physiology
Laboratory-based course emphasizing experimental approaches to understanding the principles of plant physiology covered in BIOL 341/3.0.
LEARNING HOURS 114 (36Lb;24T;6O;48P)
PREREQUISITE A minimum GPA of 2.0 in the Biological Foundations List.
COREQUISITE BIOL 341/3.0.

BIOL 403/3.0 Experimental Techniques in Biology
Self-directed and self-selected hands-on experimental techniques used in fundamental biology research, biotechnologies, and medical sciences.
LEARNING HOURS 120 (36Lb;12T;72Oc)
PREREQUISITE BIOL 205/3.0 and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 404/3.0 Techniques in Molecular Biology
Intensive laboratory work (8h/day) to be carried out over two and a half weeks in May. Practical work includes DNA isolations, DNA cloning, PCR, production of proteins, biochemical and immunological analysis of proteins.
NOTE Priority to students registered in BIOL Major and Specialization degree Plans. See course website for details.
LEARNING HOURS 112.5 (100Lb;12.5P)
PREREQUISITE (BCHM 218/3.0 or BIOL 330/3.0) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 409/3.0 Bioremediation
The use of living organisms to address environmental problems. Topics include mechanisms of contaminant extraction, absorption, concentration, and degradation using bacteria and plants to detoxify organic compounds, sequester heavy metals or clean up excess nutrients.
LEARNING HOURS 109.2 (36L;12T;6Oc;55.2P)
RECOMMENDATION BIOL 322/3.0 or BIOL 339/3.0 or BIOL 341/3.0.
PREREQUISITE BIOL 330/3.0 and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 410/3.0 Ecology of Lakes and Streams
An in-depth look at the ecology and evolution of freshwater aquatic ecosystems, considering the role of populations, interspecific interactions, and the flow of energy and matter. There will be an emphasis on linking ecological theory with empirical evidence from aquatic systems. Topics will include dispersal and colonization, ecological genetics, resource competition, predator-prey interaction, evolution of life-history strategies, habitat coupling, and biogeochemical cycling.
LEARNING HOURS 120 (24L;12S;84P)
RECOMMENDATION BIOL 335/3.0.
PREREQUISITE (BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 411/3.0 Global Change Biology
This course focuses on the fundamental biology underlying the major global change issues that humanity currently faces. Strong emphasis will be placed on the critical interconnections among issues across hierarchical levels from molecule to biosphere that explain the patterns and mechanisms which have led to our current environmental predicament.
LEARNING HOURS 117(24L;18T;12G;3Oc;36P)
PREREQUISITE BIOL 300/3.0 and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 416/3.0 Terrestrial Ecosystems
Principles of terrestrial ecosystem ecology: soils; plant-soil interactions; energy and water balance; carbon and nutrient cycling; species effects; landscape-level and whole earth biogeochemistry; global change.
NOTE Overnight field trip: estimated cost $75.
LEARNING HOURS 124 (12L,24S;18Lb;12Pc;12G;12O;16Oc;18P)
PREREQUISITE (BIOL 300/3.0 or GPHY 317/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.
ONE-WAY EXCLUSION May not be taken with or after BIOL 510/3.0.

BIOL 418/3.0 Fisheries Techniques
This course will introduce students to many “hands-on” techniques currently used in fisheries. This will include fish identification, different capture techniques for fisheries assessment, bioacoustics, environmental monitoring, techniques for ageing fish, diet analysis, fish tracking (biotelemetry approaches), and data management.
LEARNING HOURS 120 (30Lb;10T;40G;40P)
PREREQUISITE BIOL 316/3.0. and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 421/3.0 Conservation Genetics
This course will explore genetic aspects of conservation, addressing questions such as: How is genetic variation lost? Can loss of genetic variation result in extinction? How much genetic variation is 'enough' for population viability? Can loss of genetic variation be prevented? How do we define management units for conservation? And is hybridization a problem or a benefit for conservation?
LEARNING HOURS 120 (36L;24T;60P)
PREREQUISITE BIOL 206/3.0 and (BIOL 243/3.0 or PSYC 202/3.0 or STAT 263/3.0 or STAT 269/3.0) and a minimum GPA of 2.0 in the Biological Foundations List.
COREQUISITE BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*.

BIOL 422/3.0 Conservation Biology
The application of biological research to the conservation of biodiversity and natural resources, as well as the interaction of biology with philosophy, politics and economics in influencing conservation policy.
LEARNING HOURS 108 (36L;36T;36P)
PREREQUISITE (BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 423/3.0 Modern Insect Science
An exploration into the world of insects, one of the most abundantly successful group of organisms on the earth.
LEARNING HOURS 120 (12L;36T;72P)
RECOMMENDATION BIOL 330/3.0 or BCHM 218/3.0.
ONE-WAY EXCLUSION May not be taken with or after BIOL 507/3.0.
PREREQUISITE BIOL 205/3.0 and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 430/3.0 Molecular Genetics of Development
The use of genetic analysis to understand developmental processes such as cell fate determination, pattern formation and morphogenesis. Emphasis will be on the molecular pathways used during embryonic development, highlighting applications and techniques using model organisms.
LEARNING HOURS 126 (36L;18S;24G;12I;12O;24P)
PREREQUISITE (BCHM 218/3.0 or BIOL 330/3.0) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 431/3.0 Cellular Basis of Adaptation
The cellular origins of diversity in physiological processes, with consideration of the role of evolutionary, developmental and molecular mechanisms.
LEARNING HOURS 108 (6L;30S;8T;4G;60P)
PREREQUISITE (BIOL 330/3.0 or BCHM 218/3.0) and (one of BIOL 301/3.0; BIOL 334/3.0; BIOL 338/3.0; BIOL 339/3.0; BIOL 341/3.0) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 432/3.0 Computation and Big Data in Biology
Application of basic coding and analytical methods to obtain, organize, analyze, visualize, and interpret information from large, complex datasets (i.e. 'Big Data') in biology. Datasets may include climate/weather records, 'omics' data, specimen collections, long-term observational studies, journal articles, and other historical and online sources.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE A minimum GPA of 2.0 in the Biological Foundations List.

BIOL 433/3.0 History and Philosophy of Biology
An examination of the foundations of evolution, classification and other selected topics from historical, philosophical and scientific perspectives.
LEARNING HOURS 120 (36L;24T;60P)
PREREQUISITE (BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 439/3.0 Natural Selection and Microevolution
The mechanisms of evolutionary change - from genes to societies. How natural selection interacts with genetic and population processes to make organisms adapted to their environment and to create biological diversity.
LEARNING HOURS 120 (36L;6S;18Lb;60P)
PREREQUISITE (BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 440/3.0 Speciation and Macroevolution
An exploration of higher-level processes in evolution spanning considerations of mechanisms of speciation, extinction, adaptive radiation, and phylogenetics.
LEARNING HOURS 120 (24L;24T;60G;12O)
PREREQUISITE (BIOL 300/3.0 or *BIOL 302/3.0* or *BIOL 303/3.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 441/3.0 Molecular Genetics
Research in eukaryotic molecular genetics with an emphasis on epigenetics. Epigenetic phenomena will be examined in a range of models from single-celled organisms to metazoans, with student discussions on topics as diverse as bioethics, disease controls, and eugenics.
LEARNING HOURS 125 (30L;8S;12Lb;10G;65P)
PREREQUISITE (BCHM 218/3.0 or BIOL 330/3.0) and a minimum GPA of 2.0 in the Biological Foundations List.
EXCLUSION(S) PATH 425/3.0.

BIOL 442/3.0 Evolutionary Medicine
An exploration of human disease, illness, and injury, and the symptoms and treatments of medical conditions, with an evolutionary framework.
LEARNING HOURS 120 (24L;20T;10O;66P)
PREREQUISITE BIOL 206/3.0 and a minimum GPA of 2.0 in the Biological Foundations List.

BIOL 445/3.0 Neuroethology
The current status of research in the study of the neural control of the natural behaviour of animals. Topics include the detection and coding of information in the environment, the integration of this information in the process of decision-making, the generation of the motor patterns that underlie behaviour, and general constraints on form and function of neural circuits.
LEARNING HOURS 126 (36L;18T;24O;48P)
PREREQUISITE [BIOL 339/3.0 or (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 214/6.0*) and a minimum GPA of 2.0 in the Biological Foundations List.

Advanced Honours Seminars (BIOL 501 – 535)
Biology offers a series of advanced 3.0 unit seminars with emphases on reading primary literature, writing, presentation skills and experimental enquiry. Small class sizes and extensive interaction with faculty help promote an independent, discovery-based learning experience. Topics and course numberings for seminar offerings vary from year to year and are listed each spring for third-year students to consider. Normally, due to enrolment restrictions, students taking BIOL 537/12.0 will be permitted to take only one of these seminar courses and all other fourth-year students will be permitted to take a maximum of two.

BIOL 501/3.0 Recent Research in Molecular Biology
This course will focus on how molecular biology is used in basic and medical research to dissect the mechanisms involved in a large variety of biological problems. Students in the course will explore molecular literature and techniques that are relevant to their interest through seminar presentations, writing critiques, scientific reviews.
LEARNING HOURS 120 (36S;84P)
RECOMMENDATION BIOL 430/3.0.
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 502/3.0 Plant Cellular Responses to Environmental Stress
This course will dissect signal transduction pathways and molecular responses in plants exposed to environmental stresses such as pathogen infection, drought, or temperature fluctuations. Emphasis is on understanding techniques used to investigate changes in gene expression, protein-protein interactions, sub-cellular localization, as well as the analysis of mutant and transgenic plant lines.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and (BIOL 330/3.0 or BIOL 334/3.0 or BIOL 341/3.0 or BIOL 430/3.0) or permission of the Department.

BIOL 503/3.0 Plant Biotechnology
This is an experiential course on the business of science and the steps leading to the commercialization of an agrobiotech product. Students will go through a series of workshops to develop their own ideas into a commercially valuable product, plus an assessment of all related social and economic issues using business-oriented exercises.
LEARNING HOURS 120 (15L;9S;24G;72P)
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and [(BIOL 205/3.0 or BCHM 218/3.0) and BIOL 341/3.0] or permission of the Department.

BIOL 504/3.0 Extremophiles

The course explores the biology of extraordinary organisms that flourish under conditions of stress and how more ordinary organisms deal with periodically unfavourable circumstances. Emphasis is placed on understanding of the relevant adaptations and processes involved.

NOTE No textbook is required. The course website will be used to provide lecture notes and assigned readings from scientific books, journals and selected websites.

LEARNING HOURS 116 (30L;2S;12G;12O;60P)

PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA- P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and (a minimum GPA of 2.0 in the Biological Foundations List) and (BIOL 339/3.0 or BIOL 341/3.0) or permission of Department.

EXCLUSIONS BIOL 533/3.0.

BIOL 505/3.0 Cell Signaling in Development and Disease

Organisms arise from a single cell into functional tissues, patterns, and structures by orchestrating cell behaviors, such as cell divisions, cell differentiation, pattern formations, cell shape changes and cell movements. This course will focus on the genetic and molecular analyses of how these cell behaviors occur.

NOTE No textbook is required. The course website will be used to provide lecture notes and assigned readings from scientific books, journals and selected websites.

LEARNING HOURS 120 (24L;12S;12I;24O;48P)

PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA- P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and (a minimum GPA of 2.0 in the Biological Foundations List) and BIOL 330/3.0 or permission of Department.

EXCLUSIONS BIOL 535/3.0.

BIOL 506/3.0 Biochemical Adaptations to Life Under Extreme Conditions

Biochemical adaptation is a fundamental aspect of biological diversity because it integrates molecular structure, with metabolic function and control. The course evaluates the mechanisms whereby animals, plants, and microbes acclimate at the biochemical level to 'extreme' environmental conditions such as temperature stress, high pressure, hypoxia, salt stress, oxidative stress, and desiccation.

LEARNING HOURS 120 (36S;84P)

RECOMMENDATION BIOL 341/3.0 and BIOL 322/3.0.

PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and [BIOL 334/3.0 or (BCHM 315/3.0 and BCHM 316/3.0) or BCHM 310/6.0] or permission of the Department.

BIOL 507/3.0 Biotechnology

This course covers the ethical, societal and environmental impacts of biotechnology. There will be critical analysis of public policy and the value of biotechnologies to science and the public. Topics will likely include synthetic biology, human cloning, xenotransplants, stem cells, nanomaterials, marine biotechnology, eugenics, patenting, GMOs and the release of biotech products to the environment.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

ONE-WAY EXCLUSION May not be taken with or after BIOL 441/3.0.

BIOL 508/3.0 Biology of the Cell Cycle

Cell proliferation underlies development and tissue renewal and is implicated in many diseases. Our universal model of eukaryotic cell cycle control is based on studies in a number of model systems. The course will focus on control mechanisms, deriving information from systems as diverse as yeast and human cells.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and (BIOL 330/3.0 or BCHM 218/3.0) or permission of the Department.

BIOL 509/3.0 Limnological Environmental Studies
This course will explore ecological and evolutionary aspects of species invasions, with an emphasis on aquatic invaders. Course discussions will include such topics as invasive species and factors that influence their arrival, establishment, and spread, as well as management strategies that can be employed to reduce the arrival, establishment, and spread of invasive species.
LEARNING HOURS 120 (9L;9S;18G;84P)
RECOMMENDATION BIOL 335/3.0.
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 510/3.0 The Biology of Sustainability
The ecology course will identify and critique potential mechanisms by which our civilization could most effectively move toward more sustainable living. The topic incorporates many fundamental aspects of biology, and each course iteration may include biogeochemical, ecological, economic, social, genetic, philosophical, and behavioral components.
LEARNING HOURS 120 (36S;12T;12G;36I;12O;12P)
RECOMMENDATION BIOL 300/3.0 or (*BIOL 302/3.0* and *BIOL 303/3.0*).
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 515/3.0 Aquaculture
This course will examine the influence of biotic and/or abiotic factors in aquaculture industries around the globe. We will explore the application of different biotechnologies in fishery industries and assess the potential impacts of various types of aquaculture practices on the environment and our fundamental socio-economical values.
LEARNING HOURS 120 (9L;9S;18G;84P)
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 527/3.0 Paleolimnology and Global Environmental Change
This course is mainly to provide students with a background in studies of long-term environmental change, with a focus on research that is especially relevant to today's environmental problems. Key topics include: climatic change, lake pollution, atmospheric deposition of contaminants and related topics.
LEARNING HOURS 132 (21L;15S;96P)
RECOMMENDATION BIOL 335/3.0.
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 530/3.0 Origins of Biodiversity
This course uses the latitudinal increase in diversity towards the equator as a launching point to explore how diversity forms, is maintained, and disappears, and why we find such dramatic variation in diversity around the world. Discussions will focus on both evolutionary and ecological perspectives of diversity, and we will review various hypotheses to explain latitudinal diversity gradients.
LEARNING HOURS 120 (9L;9S;18G;84P)
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 535/3.0 Selected Topics in Biology
LEARNING HOURS 120 (9L;9S;18G;84P)
PREREQUISITE To be announced.
PREREQUISITE Level 4 and registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, BTEC-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List or permission of the Department.

BIOL 537/12.0 Research in Biology
Individual research projects under the supervision of a staff member; reported in the form of a thesis, poster and seminar.
LEARNING HOURS 444 (8L;36S;300Pc;100O)
NOTE In the spring preceding fourth year, students must select projects in consultation with potential supervisors. Registration is subject to availability of a supervisor. Work on the project during summer is advantageous if field studies are required. See also the statement on BIOL 501/3.0-BIOL 535/3.0 in the BIOL Department Information, preliminary information section.

PREREQUISITE Admission to the final year of a BSCH program in Biology and a minimum GPA of 2.0 in the Biological Foundations List and permission of the project supervisor and course coordinator.
EXCLUSIONS BIOL 541/12.0.

BIOL 538/3.0 Research Mentorship in Biology I
Research practicum under the supervision of a Biology faculty member. The course will involve a combination of research in the host laboratory, attendance of BIOL 537/12.0 or other seminars in the Department, and literature research to present as a major paper and seminar.
NOTE Students will normally be enrolled in the fourth year of their Program, having completed the third year core requirements of their Plan.
LEARNING HOURS 128 (8S;12T;60Pc;48P)
PREREQUISITE Registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and permission of the Department.
ONE-WAY EXCLUSION Not to be taken concurrently with BIOL 537/12.0.

BIOL 539/3.0 Research Mentorship in Biology II
Research practicum under the supervision of a Biology faculty member. The course will involve a combination of research in the host laboratory, attendance of BIOL 537/12.0 or other seminars in the Department, and literature research to present as a major paper and seminar.
NOTE Students will normally be enrolled in the fourth year of their Program, having completed the third year core requirements of their Plan.
LEARNING HOURS 128 (8S;12T;60Pc;48P)
PREREQUISITE Registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and permission of the Department.
COREQUISITE BIOL 538/3.0.
ONE-WAY EXCLUSION Not to be taken concurrently with BIOL 537/12.0.

BIOL 540/6.0 Research Mentorship in Biology
Research practicum under the supervision of a Biology faculty member. The course will involve a combination of research in the host laboratory, attendance of BIOL 537 or other seminars in the Department, and literature research to present as a major paper and seminar.
NOTE Students will normally be enrolled in the fourth year of their Program, having completed the third-year core requirements of their Plan.
LEARNING HOURS 248 (8S;24T;120Pc;96P)
PREREQUISITE Registration in a Biology Honours Plan (BIOL-M-BSH, BIOL-P-BSH, BIMA-P-BSH, BIPS-P-BSH, EBIO-P-BSH) and a minimum GPA of 2.0 in the Biological Foundations List and permission of the Department.
ONE-WAY EXCLUSION Not to be taken concurrently with BIOL 537/12.0.

BIOL 541/12.0 Research in Biotechnology
Individual research projects under the supervision of a staff member; reported in the form of a thesis, poster, and seminar.
NOTE Students must select projects in consultation with potential supervisors a minimum of one full term in advance of starting the course.
LEARNING HOURS 446 (8L;18S;360Pc;60P)
PREREQUISITE Admission to the final year of the BTEC program in Biology and a minimum GPA of 2.0 in the Biological Foundations List and permission of the project supervisor and course coordinator.
EXCLUSIONS BIOL 537/12.0

BIOM 300/3.0 Modeling Techniques in Biology

Modeling will be presented in the context of biological examples drawn from ecology and evolution, including life history evolution, sexual selection, evolutionary epidemiology and medicine, and ecological interactions. Techniques will be drawn from dynamical systems, probability, optimization, and game theory with emphasis put on how to formulate and analyze models.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0) and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0)

BISC 100/3.0 Thinking Locally

This introductory course provides first-year students with a selection of key skills and theories from across a number of disciplines (Film and Media, Geography, History, Sociology) that will allow them to engage with their further studies and their role in a globalised environment with confidence, intelligence and ambition.

NOTE This is a mandatory course for students in the First-Year Program at the Bader International Study Centre, and is only available to First-Year Program students.

LEARNING HOURS 152.4 (14.4L;12S;6Pc;6G;42Oc;72P)

EXCLUSION(S) FILM 106/3.0; GPHY 101/3.0

BISC 101/3.0 Acting Globally

This is an introductory course, complementing and extending BISC 100, focused on skills and approaches from a number of disciplines (Film and Media, Geography, History, Sociology). Academic skills will be honed by centring on centrifugal forces of mobility, exchange and action. Processes such as warring, colonising, trading, connecting and leading are highlighted.

NOTE This is a mandatory course for students in the First-Year Program at the Bader International Study Centre.

LEARNING HOURS 152.4 (14.4L;12S;6Pc;6G;42Oc;72P)

CANC 380/3.0 Evolutionary Biology of Cancer

This online course is designed to introduce students to cancer as an evolutionary problem. The material is unique in that it emphasizes the impact of the immune system in fighting cancer while at the same time shaping tumour cell evolution. Students will need to synthesize the impact of factors present in the tumour microenvironment.

NOTE Only offered online.

LEARNING HOURS 120 (24L;12S;36G;48P)

PREREQUISITE Level 3 or above and one of (MICR 270/3.0 or MICRO 360/3.0 or MICR 386/3.0) AND one of (BCHM 270/3.0 or BCHM 218/3.0)

EQUIVALENCY *BMED 380/3.0*.

CANC 440/3.0 Cancer Biology and Therapeutics

A consideration of current knowledge and theories about the biology and treatment of cancer. The course will be presented in a small group format, with active student participation required.

NOTE Priority to students in the LISC Specialization Plan, CANC Sub-Plan.

PREREQUISITE Level 4 and (registration in a LISC or BCHM Major or Specialization Plan) and (a GPA of 2.5) and either [(a grade of B (obtained in any term) or a 'PASS' (obtained in Winter 2020) in BCHM 310/9.0 or BIOL 334/3.0) or (a GPA of 3.0 in BCHM 315/3.0 and BCHM 316/3.0)].

CANC 499/12.0 Research Project in Cancer Biology and Genetics

A research project involving the study of cancer biology or genetics. The project will be supervised by a faculty member associated with the Cancer Research Institute, and will provide opportunities for experimental design, data analysis and both written and oral presentation of results. Students must contact a potential faculty supervisor in the Spring preceding registration in fourth year. Enrolment is limited; acceptance by a supervisor required prior to registration.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in a LISC Specialization Plan (CANC Sub-Plan) and a GPA of 2.50.

EXCLUSIONS ANAT 499/12.0; EPID 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

CHEM 112/6.0 General Chemistry
A survey of modern chemistry: structure and bonding, phases of matter, thermodynamics, acids, bases, electrochemistry, equilibria, kinetics and organic chemistry. Using information technology, labs, and problem-solving strategies, students will develop an appreciation for the relevance of chemistry to the solution of modern-day societal challenges.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; blue lab book estimated cost $9.
LEARNING HOURS 288 (72L;36Lb;36G;48O;96P)
RECOMMENDATION 4U Chemistry or equivalent.
EXCLUSION(S) (CHEM 113/3.0 and CHEM 114/3.0).

CHEM 113/3.0 General Chemistry I: From Atoms to Matter
A quantitative treatment of chemical phenomena and materials. Critical thinking and problem solving are emphasized. Topics include atomic structure and molecular bonding, organic chemistry, and condensed phases.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Not normally intended for on-campus degree plans and certificates.
NOTE Not appropriate for pre and upper level courses that have a laboratory component.
LEARNING HOURS 126 (54O;72P)
RECOMMENDATION 4U Chemistry.
EXCLUSION(S) CHEM 112/6.0

CHEM 114/3.0 General Chemistry II: Thermodynamics and Kinetics
A quantitative treatment of chemical phenomena and materials. Critical thinking and problem solving are emphasized. Topics include atomic thermodynamics, chemical equilibria, acids and bases, kinetics, electrochemistry.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Not normally intended for on-campus degree plans and certificates.
NOTE Not appropriate for pre and upper level courses that have a laboratory component.
LEARNING HOURS 126 (54O;72P)
PREREQUISITE CHEM 113/3.0.
EXCLUSION(S) CHEM 112/6.0

CHEM 211/3.0 Main Group Chemistry
An introduction to chemistry of main group inorganic and organic compounds with the use of fundamental quantum mechanics, molecular orbital diagrams and Lewis structures to describe the structure and bonding. The stereochemistry and chirality of organic compounds, solid state inorganic chemistry, and descriptive chemistry of compounds of the main group elements will be covered. The laboratory will introduce skills in inorganic and organic synthesis.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; blue lab book estimated cost $16.
LEARNING HOURS 144(36L;36Lb;9T;63P)
PREREQUISITE CHEM 112/6.0

CHEM 212/3.0 Principles of Chemical Reactivity
An introduction to the kinetics and mechanisms of reactions in gaseous and condensed phases, including acid-base and nucleophilic substitution reactions at carbon and other main group centers. Other topics will include molecular dynamics and reactions in solution. The laboratory illustrates measurement techniques and develops laboratory skills.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; blue lab book estimated cost $9.
LEARNING HOURS 126(36L;18Lb;9T;63P)
PREREQUISITE CHEM 112/6.0 and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0]).
EXCLUSION(S) CHEM 281/3.0.

CHEM 213/3.0 Introduction to Chemical Analysis
Introduction to analytical chemical methods and science. Topics include statistical analysis of data, titrations and equilibrium theory, spectrophotometry and instrumental elemental analysis.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; blue lab book estimated cost $9.
LEARNING HOURS 144(36L;36lb;9T;63P)
PREREQUISITE CHEM 112/6.0

CHEM 221/3.0 Materials, Solutions and Interfaces
A survey of the thermodynamic properties of gases and liquids, including phase and chemical equilibria and electrochemistry. An introduction to the properties of materials, interfaces, surfaces and aqueous solutions. The laboratory uses modern software to facilitate equilibrium calculations, illustrates measurement techniques and develops laboratory skills. Winter Term.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; blue lab book $9.
LEARNING HOURS 126(36L;18Lb;18T;54P)
PREREQUISITE CHEM 112/6.0 and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0]).

CHEM 222/3.0 Methods of Structure Determination
A survey of practical spectroscopic and spectrometric methods for the determinations of the structures of organic and inorganic compounds. Methods will include nuclear magnetic resonance, electronic, infrared/Raman spectroscopy, and mass spectrometry. Tutorials will involve solving compound structures using spectroscopic data, and include an introduction to computational methods in spectroscopy.
LEARNING HOURS 126 (36L;18T;72P)
PREREQUISITE CHEM 211/3.0 or CHEM 212/3.0 or CHEM 281/3.0

CHEM 223/3.0 Organic Reactions
Mechanistically oriented study of organic reactions with emphasis on applications to synthesis. The laboratory affords experience in organic synthesis.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; carbon lab book $16.
LEARNING HOURS 144(36L;36Lb;9T;63P)
PREREQUISITE CHEM 211/3.0 and CHEM 212/3.0.
EXCLUSION(S) CHEM 282/3.0; CHEM 285/3.0.

CHEM 281/3.0 General Organic Chemistry I
An introduction to the basic principles of organic chemistry with emphasis on bonding, stereochemistry, reaction intermediates and reaction mechanisms, and structure-reactivity correlations. Intended for students in biological and life sciences. Students in chemistry or biochemistry programs should not enrol in this course.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Molecular model set $25.
LEARNING HOURS 108 (36L;24O;48P)
PREREQUISITE CHEM 112/6.0 or CHEM 114/3.0.
EXCLUSION(S) CHEM 212/3.0

CHEM 282/3.0 General Organic Chemistry II
A continuation from CHEM 281/3.0 intended for students in biological sciences, life sciences, and other programs taking no further courses in organic chemistry. Students in chemistry or biochemistry programs should not enrol in this course. Organic molecules and their reactions; relevance to biological systems. Illustrations using biomolecules such as carbohydrates, amino acids and proteins, lipids, and nucleic acids. The laboratory affords experience in elementary organic syntheses.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; carbon lab book $16.
LEARNING HOURS 141 (36L;33Lb;12O;60P)
PREREQUISITE CHEM 112/6.0 and CHEM 281/3.0.
EXCLUSION(S) CHEM 223/3.0; CHEM 285/3.0

CHEM 285/3.0 General Organic Chemistry II (with Virtual Laboratory)
A continuation from CHEM 281/3.0 intended for students in biological sciences, and other plans taking no further courses in organic chemistry. Students in chemistry or biochemistry plans should not enrol in this course. Organic molecules and their reactions; relevance to biological systems. Illustrations using biomolecules such as carbohydrates, amino acids and proteins, lipids, and nucleic acids. The virtual laboratory provides knowledge of elementary organic syntheses.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Life Sciences Honours students should not enroll in this course.
LEARNING HOURS 99 (60O;39P)
PREREQUISITE CHEM 281/3.0.
EXCLUSION(S) CHEM 223/3.0; CHEM 282/3.0

CHEM 311/3.0 Mechanistic Organic Chemistry
Fundamental mechanistic concepts of organic reactions, structure-activity relationships, solvent effects and catalysis. Mechanistic aspects of substitution, addition, elimination and pericyclic reactions.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE CHEM 223/3.0.

CHEM 312/3.0 Transition Metal Chemistry
Introduction to the chemistry, bonding and structures of coordination compounds of the transition metals; transition metals in the solid state and in biological systems; industrial and environmental aspects of transition metal chemistry.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE CHEM 211/3.0.

CHEM 313/3.0 Quantum Mechanics
Elementary principles and applications of wave mechanics with special reference to molecular orbitals and chemical bonding.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE (CHEM 211/3.0 or CHEM 222/3.0) and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0]) and (PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0).
ONE-WAY EXCLUSION May not be taken with or after PHYS 344/3.0.
EQUIVALENCY *CHEM 346/3.0*.

CHEM 321/3.0 Instrumental Chemical Analysis
Overview of instrumental methods of chemical analysis. Topics include gas and liquid chromatography, mass spectrometric detection, new separation methods, electrochemical analysis, inductively coupled plasma-based elemental analysis.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 213/3.0.
EXCLUSION(S) ENSC 471/3.0.

CHEM 322/3.0 The Chemical Bond: Computation and Spectroscopy
The application of quantum mechanics to the structures and internal motions of molecules. The foundations of electronic, vibrational, rotational and NMR spectroscopy will be discussed together with their applications.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE CHEM 313/3.0 or CHEM 346/3.0 or PHYS 344/3.0.

CHEM 323/3.0 Biological Chemistry
Introduction to the chemical basis of biological systems and biomolecules, protein structure and synthesis, enzyme catalysis, nucleic acids (DNA, RNA), carbohydrates, membranes, cell signalling, biosynthetic and metabolic pathways.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 311/3.0.

CHEM 326/3.0 Environmental and Green Chemistry
The first part examines chemical contaminants in the atmosphere, water, soils and sediments, including sources, behaviour, transport, and distribution among these environments. The second part introduces Green Chemistry, examining industrial sources of contaminants and the modification of industrial processes in order to minimize environmental impact.
LEARNING HOURS 108 (33L;3G;72P)
PREREQUISITE (CHEM 223/3.0 or CHEM 281/3.0) and 6.0 units in CHEM at the 200 level.

CHEM 347/3.0 Applied Surface and Colloid Science
The course covers four major topics. 1. The thermodynamic properties of interfaces (surface energy, wetting, surface area and porosity, capillary effects, work of adhesion/cohesion). 2. Models of adsorption/desorption phenomena. 3. The dynamics of phase transitions (meta-stability, nucleation, spinoidal decomposition). 4. The stability and characterization of colloidal systems. Student appreciation for the importance of these phenomena is cultivated using examples drawn from industrial processes/products including inks, paints, foods, polymer blends, and nanocomposites.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE CHEM 221/3.0.

CHEM 397/6.0 Experimental Chemistry
Laboratory course introducing modern experimental methods in chemistry, including synthesis, analytical instrumentation and computational methods. The integration of several methods will be emphasized in the synthesis and characterisation of molecules.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; carbon lab book $16.
LEARNING HOURS 300 (144Lb;12T:144P)
PREREQUISITE (CHEM 222/3.0 and CHEM 223/3.0) and 6.0 units in CHEM at the 200 level.
COREQUISITE 6.0 units at the 300 level in CHEM.
EXCLUSION(S) CHEM 398/3.0; CHEM 399/3.0

CHEM 398/3.0 Experimental Chemistry I
Laboratory course. In consultation with the course co-ordinator, and subject to availability, students may select experiments as are relevant to their degree program including synthesis, analytical instrumentation and computational methods. The integration of several methods will be emphasized in the design and characterisation of molecules.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; carbon lab book $16.
LEARNING HOURS 156 (72Lb;12T:72P)
PREREQUISITE (CHEM 222/3.0, CHEM 223/3.0) and 3.0 units in CHEM at the 200 level.
COREQUISITE 3.0 units at the 300 level in CHEM.
EXCLUSION(S) CHEM 397/6.0

CHEM 399/3.0 Experimental Chemistry II
Laboratory course. In consultation with the course co-ordinator, and subject to availability, students may select experiments as are relevant to their degree program including synthesis, analytical instrumentation and computational methods. The integration of several methods will be emphasized in the design and characterisation of molecules.
NOTE Lab coat estimated cost $27; goggles estimated cost $17; carbon lab book $16.
LEARNING HOURS 156 (72Lb;12T;72P)
PREREQUISITE (CHEM 222/3.0, CHEM 223/3.0) and 3.0 units in CHEM at the 200 level.
COREQUISITE 3.0 units at the 300 level in CHEM.
EXCLUSION(S) CHEM 397/6.0

CHEM 411/3.0 Advanced Analytical Chemistry
A discussion of recent advances in analytical chemistry and its applications to the environmental, materials and biomedical fields. At least four topics will be covered from sample preparation, separation methods, multidimensional chromatography, elemental spectroscopy, mass spectroscopy, and surface analysis methods. Additional topics will be selected from the current literature.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 321/3.0 or ENSC 471/3.0.

CHEM 412/3.0 Statistical Mechanics
The fundamentals of statistical mechanics with applications to thermodynamic properties of gases, liquids and solids and to chemical equilibrium in dilute gases.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE (CHEM 221/3.0 and CHEM 313/3.0) or (PHYS 345/3.0 and PHYS 372/3.0).
EXCLUSION(S) PHYS 472/3.0.

CHEM 413/3.0 Computational Chemistry
The application of quantum mechanics to chemical structures, energetics, internal motions of molecules, and chemical reactions. An introduction to the use of modern electronic structure software in chemistry.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 313/3.0 or CHEM 346/3.0 or PHYS 345/3.0.

CHEM 414/3.0 Catalysis
An advanced treatment of the concepts and applications of catalysis, including the kinetics of catalysis and topics selected from the areas of homogeneous, heterogeneous, and biocatalysis.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 312/3.0 and CHEM 223/3.0.

CHEM 415/3.0 Electrochemistry and Electrocatalysis
The course covers concepts of equilibrium electrochemistry and examines the structure of the electrode-solution interface. It discusses the basics of electron transfer and derives electrochemical kinetics equations. It shows examples of several electrochemical reactions and overviews experimental methods used to study electrochemical phenomena.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE CHEM 212/3.0 and CHEM 221/3.0.

CHEM 421/3.0 Advanced Methods in Physical Chemistry
Modern spectroscopic methods for the structural and electronic characterisation of molecules will be discussed, including: NMR, X-ray and synchrontron-based spectroscopies, laser spectroscopy, surface spectroscopic methods and scanning probe methods.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 313/3.0 or PHYS 345/3.0.
COREQUISITE CHEM 322/3.0.

CHEM 422/3.0 Synthetic Organic Chemistry
Modern synthetic methods in organic chemistry. Principles of strategy in planning organic syntheses based on simple classifications of reagents and reactions, and on the control of stereochemistry.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE CHEM 311/3.0.

CHEM 423/3.0 Topics in Inorganic and Organometallic Chemistry
An examination of aspects of modern inorganic and organometallic chemistry. Topics will include metal-ligand bonding in organometallic complexes, applications of organometallics in organic synthesis, metal-metal bonding in dinuclear and polynuclear metal complexes, and may include reaction mechanisms of transition metal complexes, bioinorganic chemistry, and symmetry.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 312/3.0.

CHEM 424/3.0 Polymer Chemistry
Specific properties of polymers (glass transition, crystallinity, polydispersity, etc.) and their dependence on macromolecular structure and isomerism. Polymer synthesis overview: step and chain polymerization (free-radical, ionic and insertion mechanisms) and reactions on polymers. Examples of polymers and their uses.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 223/3.

CHEM 425/3.0 Self-Assembly and Materials
Four topics covering a range of self-assembled molecular systems will be discussed: monolayers and bilayers, block co-polymers, nanoparticles, and liquid crystals. Material properties, synthetic methods and application of these systems in current and emerging technologies, including nanotechnologies, will be covered.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE CHEM 221/3.0 and CHEM 223/3.0.

CHEM 497/6.0 Research Project
A full-year research project on a topic in chemistry, supervised by a member of staff. Normally limited to students in the final year of a major or subject of specialization in Chemistry. May be taken in the Summer Term with permission. Additional restrictions may apply.
NOTE Lab coat estimated cost $27; goggles estimated cost $17.
LEARNING HOURS 240 (216Lb;24P)
PREREQUISITE CHEM 397/6.0.
EXCLUSION(S) CHEM 498/3.0; CHEM 499/3.0.

CHEM 498/3.0 Research Project I
A Fall Term research project on a topic in chemistry, supervised by a member of staff. Normally limited to students in the final year of a major or subject of specialization in Chemistry. Additional restrictions may apply.
LEARNING HOURS 120 (108Lb;12P)
EXCLUSION(S) CHEM 497/6.0

CHEM 499/3.0 Research Project II

A Winter Term research project on a topic in chemistry, supervised by a member of staff. Normally limited to students in the final year of a major or subject of specialization in Chemistry. Additional restrictions may apply.

LEARNING HOURS 120 (108Lb;12P)

EXCLUSION(S) CHEM 497/6.0

CHIN 100/6.0 Introductory Mandarin Chinese I

For students with no previous knowledge of Chinese. Students familiar with Cantonese or Mandarin will not be permitted to enroll. Introduction to the basic structural patterns and functional usage of the language including an emphasis on oral communication (both listening and speaking), reading and writing basic Chinese characters, as well as Chinese culture.

NOTE Students will have their level of competence assessed by the instructor during orientation week in September.

LEARNING HOURS 240 (72L;24T;144P)

PREREQUISITE Level 1 or (Level 2 or above and a GPA of 1.90).

CHIN 200/6.0 Introductory Mandarin Chinese II

For students with some knowledge of Cantonese who wish to acquire a command of Mandarin or for students with some knowledge of Mandarin who want to improve their Chinese language skills. Continued study of basic structural patterns of the language with the emphasis on oral communication, reading and writing using the simplified forms of Chinese characters.

NOTE Students will have their level of competence assessed by the instructor during orientation week in September.

LEARNING HOURS 240 (72L;24T;144P)

PREREQUISITE CHIN 100/6.0 and permission of the Department of Languages, Literatures and Cultures.

CHIN 300/6.0 Intermediate Mandarin Chinese

Continuing study of the functional usage of Mandarin Chinese with intensive training in listening, speaking, reading and writing using the simplified forms of Chinese characters.

NOTE Students will have their level of competence assessed by the instructor during orientation week in September.

LEARNING HOURS 240 (72L;168P)

PREREQUISITE CHIN 200/6.0 and permission of the Department of Languages, Literatures and Cultures.

CISC 101/3.0 Elements of Computing Science
Introduction to algorithms: their definition, design, coding, and execution on computers. Intended for students who have no programming experience. All or most assignment work will be completed during lab time.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;24Lb;60P)
EXCLUSIONS APSC 142/3.0; APSC 143/3.0; CISC 110/3.0; CISC 151/3.0
ONE-WAY EXCLUSION May not be taken with or after: CISC 121/3.0; CISC at the 200-level or above.

CISC 102/3.0 Discrete Mathematics for Computing I
Introduction to mathematical discourse and proof methods. Sets, functions, sequences, and relations. Properties of the integers. Induction. Equivalence relations. Linear and partial orderings.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Sufficient preparation for CISC 121; alternative to CISC 110/3.0 and CISC 151/3.0
LEARNING HOURS 120 (36L;84P)
ONE-WAY EXCLUSION May not be taken with or after CISC 203/3.0.

CISC 110/3.0 Creative Computing
Introduction to fundamental programming concepts in the context of visual, interactive media. Students may develop applications in any domain (e.g., fine art, education, commerce, physical or social sciences) while learning about algorithms, program design, logic, program control flow, functions, testing, etc.
NOTE No computing or art background required. Sufficient preparation for CISC 121/3.0. Alternative to CISC 101/3.0 and CISC 151/3.0. With permission of the school, students with programming experience may take this concurrently with CISC 121/3.0
LEARNING HOURS 120 (36L;84P)
EXCLUSIONS APSC 142/3.0; APSC 143/3.0; CISC 101/3.0; CISC 151/3.0
ONE-WAY EXCLUSION May not be taken with or after CISC 121/3.0 or CISC at the 200-level or above.

CISC 121/3.0 Introduction to Computing Science I
Introduction to design, analysis, and implementation of algorithms. Recursion, backtracking, and exits. Sequences. Elementary searching and sorting. Order-of-magnitude complexity. Documentation, iterative program development, translating natural language to code, testing and debugging.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION Some programming experience (such as high-school level programming or CISC 101/3.0 or CISC 110/3.0 or CISC 151/3.0) see Introductory Courses in Departmental Notes.
COREQUISITE CISC 102/3.0 or MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0 or MATH 120/6.0 or MATH 121/6.0 or MATH 123/3.0 or MATH 124/3.0 or MATH 126/6.0 or APSC 171/3.0 or APSC 172/3.0 or APSC 174/3.0 or COMM 161/3.0 or COMM 162/3.0.

CISC 124/3.0 Introduction to Computing Science II
Introduction to object-oriented design, architecture, and programming. Use of packages, class libraries, and interfaces. Encapsulation and representational abstraction. Inheritance. Polymorphic programming. Exception handling. Iterators. Introduction to a class design notation. Numerical computation. Applications in various areas.
LEARNING HOURS 120 (36L;24Lb;60P)
PREREQUISITE C- in CISC 121/3.0.
COREQUISITE CISC 102/3.0 or MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0 or MATH 120/6.0 or MATH 121/6.0 or MATH 123/3.0 or MATH 124/3.0 or MATH 126/6.0 or APSC 171/3.0 or APSC 172/3.0 or APSC 174/3.0 or COMM 161/3.0 or COMM 162/3.0.

CISC 151/3.0 Elements of Computing with Data Analytics
Introduction to algorithms: their definition, design, coding, and execution on computers, with applications drawn from data analytics, including simple prediction and clustering. Intended for students who have no programming experience. All or most assignment work will be completed during lab time.
NOTE Sufficient preparation for CISC 121/3.0. Alternative to CISC 101/3.0 and CISC 110/3.0
LEARNING HOURS 120 (36L;84P)
EXCLUSIONS APSC 142/3.0; APSC 143/3.0; CISC 101/3.0; CISC 110/3.0
ONE-WAY EXCLUSION May not be taken with or after CISC 121/3.0; CISC; SOFT at the 200-level and above.

CISC 181/3.0 Digital Societies
This introductory course provides a broad overview and ethical implications of technological topics and trends in the digital world such as the Internet of Things (IoT), Social Networks, Security and Privacy, Data Analytics, and Artificial Intelligence (AI). No programming experience is required.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *CISC P81/3.0*

CISC 203/3.0 Discrete Mathematics for Computing II
Proof methods. Combinatorics: permutations and combinations, discrete probability, recurrence relations. Graphs and trees. Boolean and abstract algebra.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 20202) in [CISC 121/3.0 and (CISC 102/3.0 or MATH 110/6.0)].

CISC 204/3.0 Logic for Computing Science
Elements of mathematical logic with computing applications. Formal proof systems for propositional and predicate logic. Interpretations, validity, and satisfiability. Introduction to soundness, completeness and decidability.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 121/3.0 and (CISC 102/3.0 or MATH 110/6.0)].

CISC 220/3.0 System-Level Programming
Basic concepts of Unix-like systems. Shells and scripting. System-level programming in the C language. Software development tools and techniques.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (in any term) or a 'Pass' (obtained in Winter 2020) in CISC 121/3.0.
COREQUISITE CISC 124/3.0.

CISC 221/3.0 Computer Architecture
The descriptive levels of computer architecture. Instruction-set architectures. Assembly Language. Data representation. Support for operating-system management and high-level languages. Input/output and interrupts. Designing for performance. Digital Logic.
LEARNING HOURS 120 (12L;24G;84P)
RECOMMENDATION CISC 220/3.0.
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 124/3.0.

CISC 223/3.0 Software Specifications
Introduction to techniques for specifying the behaviour of software, with applications of these techniques to design, verification and construction of software. Logic-based techniques such as loop invariants and class invariants. Automata and grammar-based techniques, with applications to scanners, parsers, user-interface dialogs and embedded systems. Computability issues in software specifications.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 124/3.0 and CISC 204/3.0).

CISC 226/3.0 Game Design
An introduction to techniques for designing elementary computer games. Topics will include game development tools and processes, principles of game design, game prototyping and game evaluation.
LEARNING HOURS 120 (36L;60G;24P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 124/3.0.

CISC 235/3.0 Data Structures
Design and implementation of advanced data structures and related algorithms, including correctness and complexity analysis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 124/3.0 and CISC 203/3.0).

CISC 251/3.0 Data Analytics
Introduction to data analytics; data preparation; assessing performance; prediction methods such as decision trees, random forests, support vector machines, neural networks and rules; ensemble methods such as bagging and boosting; clustering techniques such as expectation-maximization, matrix decompositions, and bi-clustering; attribute selection.
LEARNING HOURS 120 (36L;24Lb;60P)
RECOMMENDATION Prior exposure to problem solving in any discipline.
EXCLUSIONS *CISC 333/3.0*; CMPE 333/3.0

CISC 271/3.0 Linear Data Analysis
Elements of linear algebra for data analysis, including: solution of linear equations; vector spaces; matrix decompositions; principal components analysis; linear regression; hyperplane classification of vectorial data.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in {[CISC 101/3.0 or CISC 121/3.0] and [MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0] and [MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0) or MATH 126/6.0]}.
EXCLUSIONS MATH 272/3.0; PHYS 213/3.0; *PHYS 313/3.0*.

CISC 282/3.0 Fundamentals of Web Development
This course surveys current best practices for implementing attractive, usable, secure and maintainable web applications. Other issues considered include: accessibility, platform and browser independence, licensing of intellectual property, scalability, user privacy, and using web technologies in mobile development.
LEARNING HOURS 120 (36L;48O;36P)
PREREQUISITE Level 2 and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 124/3.0.
EQUIVALENCY *CISC P82/3.0*.

CISC 320/3.0 Fundamentals of Software Development
Introduction to management of small and medium-scale software projects. Advanced programming methodology using the programming language C++. Includes a significant programming project.
LEARNING HOURS 120 (36L;24T;24G;36P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 235/3.0.

CISC 322/3.0 Software Architecture
Abstractions and patterns of interactions and relationships among modules. Design recovery; relationship of architecture to requirements and testing.
LEARNING HOURS 120 (36L;24T;36G;24P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 223/3.0 and CISC 235/3.0).
EXCLUSIONS CISC 326/3.0.

CISC 324/3.0 Operating Systems
Layered operating systems for conventional shared memory computers: concurrent processes. Synchronization and communication. Concurrent algorithms. Scheduling. Deadlock. Memory management. Protection. File systems. Device management. Typical layers.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 221/3.0 and CISC 235/3.0).

CISC 325/3.0 Human-Computer Interaction
Developing usable software requires that human factors be considered throughout the design and development process. This course introduces a series of techniques for development and evaluating usable software, and shows how these techniques can be integrated into a process for software development.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 124/3.0 and CISC 235/3.0).

CISC 326/3.0 Game Architecture
An introduction to software architectural design through the application domain of game development. Abstractions and patterns of interactions and relationships among modules. Design recovery. Relationship to requirements and testing
LEARNING HOURS 120 (36L;24T;60P)
RECOMMENDATION CISC 226/3.0
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 223/3.0 and CISC 235/3.0).
EXCLUSIONS CISC 322/3.0

CISC 327/3.0 Software Quality Assurance
Validation of software throughout the life cycle. Comparative effectiveness in defect removal of formal methods (proofs of correctness), inspection (walkthroughs and reviews), and testing (unit, integration, and system testing; white box versus black box).
LEARNING HOURS 120 (36L;84G)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 220/3.0 and CISC 124/3.0).

CISC 330/3.0 Computer-Integrated Surgery
Concepts of computer-integrated surgery systems and underlying techniques such as medical-image computing, robotics, and virtual reality, learned through real-life applications and problems. Techniques learned in class will be applied in a hands-on surgery session where students perform minimally invasive surgery with virtual-reality navigation tools.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 121/3.0 and CISC 271/3.0).
EXCLUSIONS COMP 329/3.0; *COMP 230/3.0.*
EQUIVALENCY COMP 230/3.0.

CISC 332/3.0 Database Management Systems
Data models: relational, entity-relationship. Relational query languages: relational algebra and SQL. Relational database design. Application interfaces and embedded SQL. Storage and indexing.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 and registration in a School of Computing Plan and C- or better (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 102/3.0 and CISC 124/3.0)
EXCLUSIONS COMM 392/3.0.

CISC 335/3.0 Computer Networks
Fundamental concepts in the design and implementation of computer communication networks, protocols, and applications. Overview of network architectures; applications; network programming interfaces; transport; congestion; routing and data link protocols; addressing; local area networks; wireless networks; basic network security.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 124/3.0 and(CISC 102/3.0 or CISC 204/3.0).

CISC 340/3.0 Digital Systems
Combinational circuits; sequential circuits; digital systems design; micro-programming; bus structures; data communications; interface design; microprocessor systems.
LEARNING HOURS 120 (12L;24G;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 221/3.0.

CISC 351/3.0 Advanced Data Analytics
Design and implementation of complex analytics techniques; predictive algorithms at scale; deep learning; clustering at scale; advanced matrix decompositions, analytics in the Web, collaborative filtering; social network analysis; applications in specialized domains.
LEARNING HOURS 120 (36l;36Lb;84P)
PREREQUISITE C- in CISC 251/3.0 and [C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (3.0 units in STAT or 3.0 units from STAT_Options)].
EXCLUSIONS CISC 371/3.0; CISC 372/3.0

CISC 352/3.0 Artificial Intelligence
An introduction to the basic principles and tools of artificial intelligence. Problem solving methods and knowledge representation techniques.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION CISC 360/3.0 or *CISC 260/3.0*.
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 235/3.0.

CISC 360/3.0 Programming Paradigms
Review of imperatives programming features. Introduction to other widely used programming paradigms. Functional programming languages, such as LISP and Haskell. Higher order functions, lazy evaluation, abstract and recursive types, structural induction, symbolic expressions. Logic programming languages, such as PROLOG. Operational interpretation of predicates and terms, proof search, unification, backtracking. Typical applications.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *CISC 260/3.0*.
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 124/3.0 and CISC 204/3.0).

CISC 365/3.0 Algorithms I
Principles of design, analysis and implementation of efficient algorithms. Case studies from a variety of areas illustrate divide and conquer methods, the greedy approach, branch and bound algorithms and dynamic programming.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 203/3.0 and CISC 204/3.0 and CISC 235/3.0).

CISC 371/3.0 Nonlinear Data Analysis
Methods for nonlinear data analysis, particularly using numerical optimization. Applications may include: unconstrained data optimization; linear equality constraints; linear inequality constraints; constrained data regression; constrained data classification; evaluating the effectiveness of analysis methods
LEARNING HOURS 120 (36L;84P)
PREREQUISITE C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC271/3.0 and **(STAT 263/3.0 or STAT_Options)**] and registration in a Computing plan
EXCLUSION(S) CISC 351/3.0

CISC 372/3.0 Advanced Data Analytics
Inductive modelling of data, especially counting models; ensemble approaches to modelling; maximum likelihood and density-based approaches to clustering, visualization. Applications to non-numeric datasets such as natural language, social networks, internet search, recommender systems. Introduction to deep learning. Ethics of data analytics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [**CISC271** and 3.0 units of (STAT or STAT_Options)] and registration in a Computing plan
EXCLUSION(S) CISC 351/3.0

CISC 422/3.0 Formal Methods in Software Engineering
Mathematical methods for describing software behaviour and structure. Topics include (but are not limited to) the following: Requirements specification. Module specification: axiomatic, algebraic, and trace specifications. Abstract models. Verification. Specification-based validation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 223/3.0.

CISC 423/3.0 Software Requirements
An integrated approach to discovering and documenting software requirements. Identification of stakeholders; customer, operator, analyst, and developer perspectives. Requirements elicitation. Transition from initial (informal) requirements to semi-formal and formal representations. Requirements analysis process; analysis patterns. Requirements specification techniques. Relation to architecture and user interface design; traceability of requirements.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 322/3.0 or CISC 326/3.0).
COREQUISITE CISC 325/3.0.

CISC 425/3.0 Advanced User Interface Design
Advanced user-interface styles such as eye-tracking input, digital desks, wearable computing, ubiquitous and context-aware computing, and tangible interfaces.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and (C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 325/3.0) or permission of the School.

CISC 426/3.0 Real-Time Systems
Design and implementation of real-time embedded applications. Specifying timing properties: formal and semi-formal methods; soft real-time versus hard real-time. Design notations; language constructs. Real-time operating systems. Abstract device interfaces.
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 324/3.0 and CISC 327/3.0).

CISC 432/3.0 Advanced Data Management Systems
Storage and representation of "big data", which are large, complex, structured or unstructured data sets. Provenance, curation, integration, indexing and querying of data.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 235/3.0 and CISC 332/3.0).

CISC 434/3.0 Distributed Systems
Distributed systems goals, characteristics, and architectures. Processes: models, inter-process communication and coordination. Name services. Consistency and replication. Fault tolerance: design for reliable communication and recovery. Security. Development paradigms based on data types: object, file, and web-based systems.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 324/3.0.

CISC 437/3.0 Performance Analysis
Analytic and empirical evaluation of the performance of software systems. Performance modeling. Experimental design and statistical techniques for empirical performance analysis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 324/3.0 and CISC 327/3.0).

CISC 447/3.0 Introduction to Cybersecurity
An introduction to cybersecurity covering a wide range of vulnerabilities, attacks, and defense mechanisms in individual computers, networks, the Internet and the Web and applications that use them, and storage and computational clouds. The human side of cybersecurity, and the legal and ethical constraints on both attack and defense
LEARNING HOURS 120(36L;84P))
PREREQUISITE CISC 324/3.0, CISC 335/3.0
EXCLUSIONS CISC 490 (Topic Title: Computer Security)

CISC 448/3.0 Software Reliability and Security
Software dependability and other related concepts, software process models and methods for reliable software. Software reliability engineering process, software fault tolerance and run-time monitoring. Software security engineering process, secure software design, program security vulnerabilities and software security testing
LEARNING HOURS 120(36L;84P)
PREREQUISITE CISC 327/3.0 or SOFT 327/3.0

CISC 451/3.0 Topics in Data Analytics
Content will vary from year to year; typical areas covered may include: tools for large scale data analytics (Hadoop, Spark), data analytics in the cloud, properties of large scale social networks, applications of data analytics in security.

LEARNING HOURS 120 (36l;36Lb;48P)
PREREQUISITE C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (*CISC 333/3.0* or CISC 351/3.0 or CISC 372/3.0).

CISC 452/3.0 Neural and Genetic Computing
Introduction to neural and genetic computing. Topics include associative memory systems, neural optimization strategies, supervised and unsupervised classification networks, genetic algorithms, genetic and evolutionary programming. Applications are examined, and the relation to biologic systems is discussed.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 235/3.0.
EXCLUSION(S) COGS 400/3.0

CISC 453/3.0 Topics in Artificial Intelligence
Investigation of selected areas of artificial intelligence research. Possible topics include natural language understanding, computational perception, planning, learning, and neurocomputing.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 352/3.0.

CISC 454/3.0 Computer Graphics
Introduction to computer graphics, including a review of current hardware; modelling and transformations in two and three dimensions; visual realism: perspective, hidden surface elimination, and shading; colour models; applications in several fields.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 235/3.0 and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0)].

CISC 457/3.0 Image Processing and Computer Vision
Introduction to fundamental concepts and applications in image processing and computer vision. Topics include image acquisition, convolution, Discrete Fourier Transform, image enhancement, edge detection, segmentation, image registration, human contrast perception, colour perception and reproduction, stereo vision.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [(MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (MATH 120/6.0 or MATH 121/6.0 or MATH 123/3.0 or MATH 124/3.0 or MATH 126/6.0) and CISC 124/3.0].

CISC 458/3.0 Programming Language Processors
Introduction to the systematic construction of a compiler: grammars and languages, scanners, top-down and bottom-up parsing, runtime organization, symbol tables, internal representations; Polish notation, syntax trees, semantic routines, storage allocation, code generation, interpreters.
LEARNING HOURS 120 (36L;36Lb;48G)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 121/3.0 and CISC 221/3.0 and CISC 223/3.0).

CISC 462/3.0 Computability and Complexity
Turing machines and other models of computability such as μ-recursive functions and random-access machines. Undecidability. Recursive and recursively enumerable sets. Church-Turing thesis. Resource-bounded complexity. Complexity comparisons among computational models. Reductions. Complete problems for complexity classes.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION CISC 365/3.0.
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 223/3.0.

CISC 465/3.0 Semantics of Programming Languages
Specifying syntax and semantics; operational and denotational semantics. Lambda calculi, type systems and logical foundations. Meta-theoretic properties. Semantics of imperative languages.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 204/3.0 and CISC 223/3.0 and (CISC 360/3.0 or *CISC 260/3.0*)].

CISC 466/3.0 Algorithms II
A continuation of CISC 365/3.0. Lower bound theory. Average-case analysis of algorithms. Approximation algorithms. Probabilistic algorithms. Parallel algorithms.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 365/3.0.

CISC 467/3.0 Fuzzy Logic
History of fuzzy theory; fundamental concepts of fuzzy theory: sets, relations, and logic operators. Approximate reasoning, fuzzy inference, possibility theory. Separation from probability. Fuzzy control systems. Fuzzy pattern recognition. Advanced topics may include fuzzy expert systems, financial systems, graph theory, optimization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in a BCMP or COCA Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 204/3.0.

CISC 471/3.0 Computational Biology
Advanced computational approaches to the problems in molecular biology. Techniques and algorithms for sequence analysis and alignment; molecular databases; protein structure prediction and molecular data mining.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 271/3.0 and CISC 352/3.0 and CISC 365/3.0]

CISC 472/3.0 Medical Informatics
Current topics in the application of information technology to medical image computing and its use in image-guided medical interventions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 330/3.0.

CISC 473/3.0 Deep Learning
Design of deep neural networks based on leading-edge algorithms such as Restricted Boltzmann Machines, Recurrent Neural Networks, Convolutional Neural Networks, Long-Short Term Machines. Autoencoding as a clustering technique. Applications to prediction problems in natural language and images.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 371/3.0.

CISC 474/3.0 Reinforcement Learning
Formal and heuristic approaches to problem-solving, planning, knowledge representation and reasoning, Markov decision processes, dynamic programming, temporal-difference learning, Monte Carlo learning, function approximation, integration of learning and planning. Implementing simple examples of logical reasoning, clustering or classification.
LEARNING HOURS 120 (36L;12G;72P)
PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 352/3.0.

CISC 486/3.0 Game Development
An introduction to 'engines' used in networked 3-dimensional games. Topics include game-engine architecture and components providing 3-dimensional rendering, physics simulation, sound, artificial intelligence and networking services.
LEARNING HOURS 120 (36L;15G;69P)

PREREQUISITE Registration in a School of Computing Plan and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in [CISC 226/3.0 and (CISC 322/3.0 or CISC 326/3.0) and CISC 324/3.0 and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0)].

CISC 490/3.0 Topics in Computing Science I
Content varies. Not offered every year.
NOTE Learning Hours will vary.
PREREQUISITE Registration in a School of Computing Plan and permission of the instructor.

CISC 491/3.0 Topics in Computing Science II
Content varies. Not offered every year.
NOTE Learning Hours will vary.
PREREQUISITE Registration in a School of Computing Plan and permission of the instructor.

CISC 492/3.0 Topics in Computing Science III
Content varies. Not offered every year.
NOTE Learning Hours will vary.
PREREQUISITE Registration in a School of Computing Plan and permission of the instructor.

CISC 496/3.0 Game Development Project
Team-based project involving the development of a game using modern tools and software engineering techniques.
LEARNING HOURS 129 (9L;120G)
PREREQUISITE Some programming experience (such as high-school level programming or CISC 101/3.0 or CISC 110/3.0 **or CISC 151/3.0**)
EXCLUSION(S) No more than one course from CISC 496/3.0; CISC 498/6.0; CISC 499/3.0;COGS 499/3.0; CISC 500/6.0

CISC 497/3.0 Social, Ethical and Legal Issues in Computing
A wide range of topics of current importance in computing, including technical issues, professional questions, and moral and ethical decisions. Students make presentations, deliver papers, and engage in discussion.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a COMP Major or Specialization Plan and a GPA of 1.90 and a GPA of 2.60 in CISC; COCA; COGS; SOFT and 30.0 units of CISC; COCA; COGS; SOFT and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 352/3.0 or CISC 365/3.0).

CISC 498/6.0 Information Technology Project
Topic selected under the supervision of a faculty member. Emphasis is on the application of software engineering techniques to the development of a substantial software system. Group work, oral presentation, participation in design and code review meetings, and delivery of complete software specification and design are required.
LEARNING HOURS 258 (18S;240G)
PREREQUISITE Level 4 and registration in a SODE Specialization Plan and a GPA of 1.90 and a GPA of 2.60 in CISC; COCA; COGS; SOFT and 30.0 units in CISC; COCA; COGS; SOFT and [C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 322/3.0 or CISC 326/3.0) and (CISC 325/3.0 or CISC 327/3.0)].
EXCLUSION(S) CISC 499/3.0; CISC 496/.30

CISC 499/3.0 Advanced Undergraduate Project
Topic selected under the supervision of a faculty member. Emphasis may be on the development of a large program, or on more theoretical issues. Independent research, an oral presentation, and a written report are required.
LEARNING HOURS 120 (120P)
PREREQUISITE Level 4 and registration in a COMP Major or BMCO or COMA or CSCI Specialization Plan and a GPA of 1.90 and a GPA of 2.60 in CISC; COCA; COGS; SOFT and 30.0 units in CISC; COCA; COGS; SOFT and C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 365/3.0.
EXCLUSION(S) CISC 496/3.0; CISC 498/6.0; COGS 499/3.0; CISC 500/6.0

CISC 500/6.0 Undergraduate Thesis
Individual research project under the supervision of a School of Computing faculty member. Evaluation is based on an oral presentation and a written thesis. It is the responsibility of the student to make a research proposal and secure a supervisor prior to enrolling in the course.

LEARNING HOURS 240 (24I;216P)
PREREQUISITE Permission of the Department. Minimum cumulative GPA of 3.5 and Level 4 and registration in a COMP Major or BMCO, COGS, COMA, CSCI, or SODE specialization plan.
EXCLUSION(S) CISC 496/3.0; CISC 499/3.0; COGS 499/3.0

CLST 100/6.0 Introduction to Classical Literature
Ancient Greek and Roman literature in translation: Homer's *Iliad* and *Odyssey* and Greek drama; Vergil's *Aeneid* and selections from other Latin authors. Reference to ancient customs, history, mythology, thought.
LEARNING HOURS 252 (72L;180P)

CLST 102/3.0 Introduction to Greek Civilization
An introduction to major themes in the development of Greek civilization using the evidence of literature, history and archaeology. Some attention will be given to those aspects of ancient cultural and intellectual growth that are of significance in the western tradition.
LEARNING HOURS 126 (36L;90P)
EXCLUSIONS *CLST 101/6.0*

CLST 103/3.0 Introduction to Roman Civilization
An introduction to major themes in the development of Roman civilization using the evidence of literature, history and archaeology. Some attention will be given to those aspects of ancient cultural and intellectual growth that are of significance in the western tradition.
LEARNING HOURS 126 (36L;90P)
EXCLUSIONS *CLST 101/6.0*

CLST 129/6.0 Introduction to Archaeology
Development of the discipline, methods of discovering and recovering materials through excavation, evaluation of such materials and reconstruction of original environments. Historic and prehistoric sites; contribution of archaeology to the knowledge of the past.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 252 (72L;180P)
EXCLUSIONS CLST 130/3.0; CLST 131/3.0

CLST 130/3.0 Introduction to Archaeology I: Great Discoveries in Archaeology
Development of the discipline and most important discoveries; analysis of historic and prehistoric cultures and sites with emphasis on the ancient Mediterranean.
LEARNING HOURS 126 (36L;90P)
EXCLUSIONS CLST 129/6.0

CLST 131/3.0 Introduction to Archaeology II: Methods and Analysis
Current theoretical issues; excavation and field research; analysis of material evidence for the study of ancient societies; heritage conservation and cultural property.
LEARNING HOURS 126 (36L;90P)
EXCLUSIONS CLST 129/6.0

CLST 150/3.0 Warfare in the Ancient World
Warfare of all kinds, from large scale conflict between states to raids of pirates and brigands. The course will seek a wider cultural understanding of war exploring a range of perspectives and topics, from the social ideology of war to the role of women, children and other non-combatants.
LEARNING HOURS 120 (36L;84P)

CLST 200/3.0 Greek History
Survey of the Greek World from the Late Bronze Age to the death of Cleopatra. Social, religious and political developments among the major powers, Athens, Sparta and Hellenistic kingdoms.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

CLST 201/3.0 Roman History
Survey of the basic social and political developments in Rome from kingdom to republic to empire.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

CLST 203/3.0 Myth and Religion
Greek concepts of the supernatural and humanity's relationship to it. The basic myths, official and secret creeds, meaning and social function of myth and ritual.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

CLST 204/3.0 Scientific and Medical Terminology
This course will introduce students to the vocabulary, building blocks, and structural quirks of Greek and Latin scientific terminology to provide them with a strong foundation for understanding technical vocabulary as they encounter it in their educational and professional lives. Students will also complete the course with a stronger understanding of the etymology and linguistic structures of English more generally.
NOTE This course does not require any previous knowledge of Greek or Latin.
LEARNING HOURS 126 (36L;90P)

CLST 205/3.0 Ancient Humour
The techniques by which humour was created in literature and the visual arts in antiquity; social and psychological aspects of humour.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 104 (2L;18G;24O;60P)
PREREQUISITE Level 2 or above.

CLST 206/3.0 Roman Britain
An exploration of the history and archaeology of Roman Britain from the expeditions of Julius Caesar in 55 B.C. to the Roman withdrawal in 411 A.D. On-site instruction in excavation and archaeological practice, and visits to major Roman sites about the United Kingdom.
NOTE This course includes a five-day field trip component.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 105 (18L;15S;12Lb;35G;25P)
PREREQUISITE Level 2 or above.

CLST 207/3.0 The Ancient Near East
Introduction to the civilizations of Mesopotamia, Syro-Palestine, Egypt and Anatolia from the Bronze Age to the Greek conquest. Artistic, intellectual, social and political history.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.
EXCLUSIONS CLST 208/3.0

CLST 208/3.0 The Levant from the Late Bronze Age to the Coming of Rome
Social, cultural, and political history of the eastern Mediterranean littoral from the 15th to the 1st centuries BCE; particular emphasis on the problems of the early Jewish state.
NOTE Offered also as a Cognate course in the Program in Jewish Studies.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.
EXCLUSIONS CLST 207/3.0

CLST 214/3.0 Ancient Science
Ancient concepts of nature and of natural phenomena: what *did* the ancients (e.g. Babylonians and Greeks) know about the natural world and how did they come to know it?
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

CLST 303/3.0 Archaeology of Early Greece
Study of the remains from the Bronze Age to the end of the Archaic period. Emphasis on the revival of architecture, painting and sculpture.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE (CLST 102/3.0 and CLST 103/3.0) or CLST 129/6.0 or CLST130/3.0 or CLST 131/3.0 or CLST 200/3.0 or CLST 207/3.0 or CLST 101/6.0 or permission of the Department.

CLST 304/3.0 Archaeology of the Classical World and Hellenistic Period
Intensive study of the achievements in architecture, painting and sculpture, and town planning from 480 B.C. to 31 B.C.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE (CLST 102/3.0 and CLST 103/3.0) or CLST 129/6.0 or CLST 130/3.0 or CLST 131/3.0 or CLST 200/3.0 or CLST 101/6.0 or permission of the Department.

CLST 305/3.0 Archaeology of the Etruscans and Early Romans
This survey of the material remains of early Italy will focus on the early Iron Age, Etruscan, and Roman (Regal and Republican) cultures. Each culture's art, architecture, urban patterns, and burial practices will be investigated in terms of the changing political and social conditions affecting those societies.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE (CLST 102/3.0 and CLST 103/3.0) or CLST 129/6.0 or CLST 130/3.0 or CLST 131/3.0 or CLST 201/3.0 or CLST 101/6.0 or permission of the Department.

CLST 306/3.0 Archaeology of the Roman Empire
A survey of Roman material culture (art, architecture and artifacts) from the reign of Augustus to that of Constantine. An emphasis will be placed on analyzing Roman architecture, sculpture, urban patterns, and objects of daily life in order to better understand the political messages and social experiences of Romans during the Imperial period.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE (CLST 102/3.0 and CLST 103/3.0) or CLST 129/6.0 or CLST 130/3.0 or CLST 131/3.0 or CLST 201/3.0 or CLST 101/6.0 or permission of the Department.

CLST 309/3.0 Caravan Cities of the Ancient Near East
Caravan cities were multicultural communities that bridged ancient empires and are an important part of the world's heritage. Through an exploration of the archaeological remains and the cultural character of four Near Eastern caravan cities students will evaluate how these communities inform and impact on concepts of cultural and global identity.
LEARNING HOURS 120 (18L;12S;84P)
PREREQUISITE Level 3 and (CLST 102/3.0 or CLST 103/3.0 or CLST 129/6.0 or CLST 130/3.0 or CLST 131/3.0 or CLST 200/3.0 or CLST 201/3.0) or permission of the department.

CLST 311/3.0 Greek and Roman Epic
Intensive study (in translation) of the major epics of classical antiquity: Homer, Hesiod, Apollonios, Vergil and Lucan in the context of the oral and literate heroic traditions. Comparative study of English heroic poetry encouraged.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 100/6.0 or (CLST 102/3.0 and CLST 103/3.0) or permission of the Department.

CLST 312/3.0 Greek and Roman Drama
Intensive study (in translation) of representative works from the ancient theatre, both tragic (Aeschylus, Sophocles, Euripides, Seneca) and comic (Aristophanes, Menander, Plautus, Terence). Comparative study of English drama of the classical tradition encouraged.
LEARNING HOURS 121.5 (12L;72G;37.5P)
PREREQUISITE CLST 100/6.0 or (CLST 102/3.0 and CLST 103/3.0) or DRAM 200/6.0 or DRAM 219/3.0 *or DRAM 210/6.0* or permission of the Department.

CLST 314/3.0 Doctor, Bloodletter, Surgeon: The Beginnings of Western Medicine
A study of how the human body is viewed in ancient medical theory and practice. Readings of ancient medical texts will explore how the human body is constituted, how it relates to the world, what the role of the physician was seen to be in prevention and treatment of disease, and how illness and healing were understood in ancient Greece and Rome.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 200/3.0 or CLST 201/3.0 or **CLST 203/3.0** or CLST 207/3.0 or CLST 208/3.0 or CLST 214/3.0

CLST 321/3.0 World of Late Antiquity
Study of the rise of Christianity and the Christian reception of classical culture.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 201/3.0 or permission of the Department.

CLST 332/3.0 The Iron Age to the End of the Persian Wars
Study of the period from the formation of Greek civilization following the collapse of the Bronze Age Palace Culture until the end of Persian Wars (479 BCE). Topics may include the development of the polis and its institutions, Greek colonization, the tyrants and the beginning of Athenian democracy, and conflict with the Persian Empire.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 200/3.0 or permission of the Department.
EXCLUSION(S) *CLST 330/3.0*

CLST 333/3.0 The Rise of the Athenian Empire to the End of the Peloponnesian War
Study of the rise of Athenian power from the end of the Persian Wars in 479 BCE, and the conflict between Athens and Sparta along with their allies during the Peloponnesian War (431-404 BCE). Topics may include the Delian League and Athenian imperialism, development of radical democracy in Athens, and causes and effects of the Peloponnesian War.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 200/3.0 or permission of the Department.
EXCLUSION(S) *CLST 330/3.0*

CLST 334/3.0 Fourth Century Greece to the Death of Alexander
Study of Greek history in the century following the end of the Peloponnesian War in 404 BCE. Topics may include the crisis and renewal of the Greek polis; the Spartan hegemony, the rise of Thebes, the Second Athenian League, and the failure of hegemonic policies; the end of the Achaemenid Empire; the rise of Macedon; and the campaigns of Alexander.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 200/3.0 or permission of the Department.
EXCLUSION(S) *CLST 331/3.0*

CLST 335/3.0 The Hellenistic Successor Kingdoms to the Death of Cleopatra
Study of the Successor Kingdoms (Antigonids, Ptolomies, and Seleucids) during the period from the death of Alexander the Great in 323 BCE until the end of the Ptolemaic Dynasty in Egypt with the Death of Cleopatra in 30 BCE. Topics may include the role of Greece in the new Mediterranean order, structures of Hellenistic kingdoms, Romans in the East.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 200/3.0 or permission of the Department.
EXCLUSION(S) *CLST 331/3.0*

CLST 340/3.0 The Roman Republic
Emergence of Early Rome and the social and political growth of the Republic.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 201/3.0 or permission of the Department.

CLST 341/3.0 The Roman Empire
Intensive study of the Empire to the reign of Marcus Aurelius. Politics of the imperial courts: administration and Romanization of the provinces.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 201/3.0 or permission of the Department.

CLST 343/3.0 The Later Roman Empire
Intensive study of the Later Roman Empire from the reign of Septimius Severus to the death of Theodosius I (395 CE). Topics include the Severan dynasty, the crisis of the Third Century, the Tetrarchy, and the Christianization of the Roman empire.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE CLST 201/3.0 or permission of the Department.

CLST 401/3.0 Research Methods
An introduction to the diverse research methods deployed in Classics, Archaeology and Ancient History. Weekly seminars will feature the research interests of members of the Classics Department, cross-appointed faculty, and visiting researchers.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE (Level 4 in a CLST or CLAS or GREK or LATN Plan with a minimum GPA of 2.90) or permission of the Department.

CLST 404/3.0 The Topography of Athens
The growth of Athens from the Neolithic period to Late Antiquity. Emphasis on social and political developments and personal aspirations which determine the cityscape.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE CLST 303/3.0 or CLST 304/3.0 or CLST 332/3.0 or CLST 333/3.0 or CLST 334/3.0 or CLST 335/3.0 or *CLST 330/3.0* or *CLST 331/3.0* or permission of the Department.

CLST 405/3.0 The Topography of Rome
The growth of Rome from the foundation to Late Antiquity based on archaeological evidence. Emphasis on developments during its classical period.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE CLST 305/3.0 or CLST 306/3.0 or CLST 321/3.0 or CLST 340/3.0 or CLST 341/3.0 or CLST 343/3.0 or permission of the Department.

CLST 408/6.0 Archaeology Fieldwork Practicum I
An intensive six-week introduction to archaeological methods and interpretation during participation in a fieldwork project run by a member of the Classics Department.
NOTE Offered in Summer Term.
NOTE In addition to tuition, students are required to pay for their own transportation to the archaeological site and to pay a camp fee. Fee includes: housing, lunch and dinner from Monday to Fridays, trips to sites and museums, museum tickets, transportation to and from the dig. Estimated at $2600.00. Location: Nora, Italy.
LEARNING HOURS 282 (201Lb;18T;27G;36I)
PREREQUISITE Level 2 and permission of the Department.

CLST 409/6.0 Archaeology Fieldwork Practicum II
An intensive six-week introduction to archaeological methods and interpretation at a fieldwork project in Italy under the supervision of a member of the Classics Department.
NOTE Offered in Summer Term (May-June or July-August Session).
NOTE In addition to tuition, students are expected to pay their own travel and accommodation costs. Fee includes: housing, lunch and dinner from Mondays to Fridays, trips to sites and museums, museum tickets, transportation to and from the dig. Estimated cost $2500. Location: Cerveteri, Italy.
LEARNING HOURS 276 (160Lb;12T;48Pc;32G;24I)
PREREQUISITE (CLST 303/3.0 or CLST 304/3.0 or CLST 305/3.0 or CLST 306/3.0) and permission of the Department.

CLST 410/3.0 Topics in Greek Scholarship
Intensive study of a special topic, period, or author(s) in the Greek world.
LEARNING HOURS 120 (24L;12S;84P)
PREREQUISITE Level 4 in a CLST or CLAS or GREK or LATN Plan.

CLST 411/3.0 Topics in Greek Scholarship II
Intensive study of a special topic, period, or author(s) in the Greek world.
PREREQUISITE Level 4 in a CLST or CLAS or GREK or LATN Plan, and permission of Department.

CLST 412/3.0 Archaeology Fieldwork Practicum IIIa
An intensive two-week introduction to archaeological and architectural recording using photography, surveying, and 3D measurement on a site of historical importance for the Classical and Byzantine period in the Balkans under the supervision of a member of the Classics Department.
NOTE Offered in Summer Term
NOTE In addition to tuition, students are required to pay for their own transportation to the site and a participation fee. Fee includes: housing, breakfast, lunch and dinner from Mondays to Sundays, trips to sites and museums, museum tickets, transportation to and from the dig. Estimated cost $1865. Must be taken with CLST 413. Discounts available for early registration.
LEARNING HOURS 128 (12L;44Pc;44G;4I;8Oc;16P)
PREREQUISITE Level 2 and permission of the Department.

CLST 413/3.0 Archaeology Fieldwork Practicum IIIb

An intensive two-week introduction to archaeological and architectural recording using photography, surveying, and 3D measurement on a site of historical importance for the Classical and Byzantine period in the Balkans under the supervision of a member of the Classics Department.

NOTE Offered in Summer Term

NOTE In addition to tuition, students are required to pay for their own transportation to the site and a participation fee. Fee includes: housing, breakfast, lunch and dinner from Mondays to Sundays, trips to sites and museums, museum tickets, transportation to and from the dig. Estimated cost $1865. Must be taken with CLST 412. Discounts available for early registration.

LEARNING HOURS 128 (12L;44Pc;44G;4I;8Oc;16P)

PREREQUISITE Level 2 and permission of the Department.

CLST 420/3.0 Topics in Latin/Roman Scholarship I

Intensive study of a special topic, period, or author(s) in the world of Rome. For information contact the Department.

LEARNING HOURS 120 (24L;12S;84P)

PREREQUISITE Level 4 in a CLST or CLAS or GREK or LATN Plan.

CLST 421/3.0 Topics in Latin/Roman Scholarship II

Intensive study of a special topic, period, or author(s) in the world of Rome. For information contact the Department.

PREREQUISITE Level 4 in a CLST or CLAS or GREK or LATN Plan, and permission of Department.

CLST 430/6.0 Special Research Course

Detailed study of certain aspects of Greek and Roman literature, history or philosophy through directed readings and essay assignments. A short thesis may be required.

LEARNING HOURS 240 (24I;216Oc)

PREREQUISITE Permission of the Department.

COCA 201/3.0 Introduction to Computing and the Creative Arts

A multidisciplinary studio-oriented overview of computer-based applications in Art, Music, Drama and Film. History of human-computer interaction. Critical and philosophical issues. Animation. Virtual reality. Computer-aided design. Computer games. Enrolment is limited.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above and (C- in 6.0 units in ARTF or ARTH or DRAM or FILM or MUSC at the 100-level.

COREQUISITE CISC 101/3.0 or CISC 110/3.0 or CISC 121/3.0 or CISC 151, or APSC 142 or APSC 143 or permission of the School of Computing.

COGS 100/3.0 Introduction to Cognitive Science
A multidisciplinary approach to the study of the mind combining approached from philosophy, psychology, linguistics, neuroscience, anthropology, and artificial intelligence. Logic, rules, concepts, and other mental representations used to generate thought and behaviour. Implementation of computational and cognitive models of mental processes.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
ONE-WAY EXCLUSION May not be taken with or after CISC 352/3.0; *PSYC 200/6.0*.

COGS 201/3.0 Cognition and Computation
Introduction to the computational aspects of the mind. Implementation of computer programs for reasoning, decision making, and problem solving to understand these mental processes. Information theory and behaviourism; computational models of cognition, perception and memory processes demonstrating modeling approaches, and cognitive architectures.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and C- (taken in any term) or a 'Pass' (obtained in Winter 2020) in (COGS 100/3.0 or PSYC 100/6.0).
EXCLUSIONS *COGS 200/6.0; PSYC 220/6.0*

COGS 300/3.0 Programming Cognitive Models
Importance and challenges of building cognitive models; steps of model building, programming simple models using computational and statistical techniques and tools such as Matlab. Recent models from research publications.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE C- (taken in any term) or a 'Pass' (obtained in Winter 2020) in [(COGS 201/3.0 or PSYC 221/3.0) and (PSYC 202/3.0 or STAT_Options)].

COGS 400/3.0 Neural and Genetic Cognitive Models
Artificial Neural Networks (ANN) and Genetic Algorithms (GA) for problem solving and prediction tasks such as classification, clustering, optimization and data reduction and modeling human cognition, with application to real world problems. Ongoing research in this area in various application domains.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE C- (taken in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 235/3.0 or ELEC 278/4.0).
EXCLUSIONS CISC 452/3.0; CMPE 452/3.0

COGS 499/3.0 Advanced Undergraduate Project
Topic selected under the supervision of a member of one of the faculties of CISC, LING, PHIL, PSYC. Emphasis may be on experimental, theoretical, or computer implementation topics. Independent research, an oral presentation, and a written report are required.
LEARNING HOURS 120 (24S;12I;84P)
PREREQUISITE Level 4 and registration in a COGS Specialization Plan and a GPA of 1.90 and a GPA of 2.60 in CISC;COCA; COGS; SOFT and 30.0 units in CISC; COCA; COGS; SOFT and C- (taken in any term) or a 'Pass' (obtained in Winter 2020) in (CISC 352/3.0 or CISC 365/3.0).
EXCLUSION CISC 499/3.0; CISC 500/6.0

COMP 329/3.0 Introduction to Computer-Integrated Surgery

An introduction to concepts and novel technologies used in computer-integrated surgery, including image based navigation, medical robotics and virtual reality. Concepts and techniques learned in class will be applied in a hands-on surgery session where students perform minimally invasive surgery with virtual-reality navigation tools.

NOTE *MATH P06/3.0* or one Mathematics 4U level course is required.

NOTE Not available for credit towards a BCMP/BCMPH program. Computing students should take CISC 330/3.0.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above.

EXCLUSION(s) CISC 330/3.0; *COMP 230/3.0*.

COMP 390/6.0 Computing Internship I

A Computing Internship involves spending twelve to sixteen months in a paid internship position in the private or public sectors. Students in a 12-month internship register in COMP 390/6.0 and either COMP 391/3.0 or COMP 392/3.0, or all of COMP 393/3.0, COMP 391/3.0 and COMP 392/3.0. Students in a 16-month internship register in COMP 390/6.0, COMP 391/3.0 and COMP 392/3.0. The Internship Coordinator must be satisfied that the work carried out has educational merit. Successful completion of the course requires submission of a satisfactory report on the experience within thirty days of completion of the work period. The Internship Coordinator is responsible for evaluating the report. The QUIP program includes prior workshops on interviewing, résumé preparation and work performance. Career Services manages the non-academic aspects of the program.

PREREQUISITE GPA of 1.90 and Level 2 or 3 and registration in a Bachelor of Computing internship plan (BMCO-I-BCH or COGS-I-BCH or COMA-I-BCH or COMP-I-BCH or CSCI-I-BCH or SODE-I-BCH).

COMP 391/3.0 Computing Internship II

A Computing Internship involves spending twelve to sixteen months in a paid internship position in the private or public sectors. Students in a 12-month internship register in COMP 390/6.0 and either COMP 391/3.0 or COMP 392/3.0, or all of COMP 393/3.0, COMP 391/3.0 and COMP 392/3.0. Students in a 16-month internship register in COMP 390/6.0, COMP 391/3.0 and COMP 392/3.0. The Internship Coordinator must be satisfied that the work carried out has educational merit. Successful completion of the course requires submission of a satisfactory report on the experience within thirty days of completion of the work period. The Internship Coordinator is responsible for evaluating the report. The QUIP program includes prior workshops on interviewing, résumé preparation and work performance. Career Services manages the non-academic aspects of the program.

PREREQUISITE GPA of 1.90 and Level 2 or 3 and registration in a Bachelor of Computing internship plan (BMCO-I-BCH or COGS-I-BCH or COMP-I-BCH or CSCI-I-BCH or SODE-I-BCH).

COMP 392/3.0 Computing Internship III

A Computing Internship involves spending twelve to sixteen months in a paid internship position in the private or public sectors. Students in a 12-month internship register in COMP 390/6.0 and either COMP 391/3.0 or COMP 392/3.0, or all of COMP 393/3.0, COMP 391/3.0 and COMP 392/3.0. Students in a 16-month internship register in COMP 390/6.0, COMP 391/3.0 and COMP 392/3.0. The Internship Coordinator must be satisfied that the work carried out has educational merit. Successful completion of the course requires submission of a satisfactory report on the experience within thirty days of completion of the work period. The Internship Coordinator is responsible for evaluating the report. The QUIP program includes prior workshops on interviewing, résumé preparation and work performance. Career Services manages the non-academic aspects of the program.

PREREQUISITE GPA of 1.90 and Level 2 or 3 and registration in a Bachelor of Computing internship plan (BMCO-I-BCH or COGS-I-BCH or COMP-I-BCH or CSCI-I-BCH or SODE-I-BCH).

COMP 393/3.0 Computing Internship IV

A Computing Internship involves spending twelve to sixteen months in a paid internship position in the private or public sectors. Students in a 12-month internship register in COMP 390/6.0 and either COMP 391/3.0 or COMP 392/3.0, or all of COMP 393/3.0, COMP 391/3.0 and COMP 392/3.0. Students in a 16-month internship register in COMP 390/6.0, COMP 391/3.0 and COMP 392/3.0. The Internship Coordinator must be satisfied that the work carried out has educational merit. Successful completion of the course requires submission of a satisfactory report on the experience within thirty days of completion of the work period. The Internship Coordinator is responsible for evaluating the report. The QUIP program includes prior workshops on interviewing, résumé preparation and work performance. Career Services manages the non-academic aspects of the program.

PREREQUISITE GPA of 1.90 and Level 2 or 3 and registration in a Bachelor of Computing internship plan (BMCO-I-BCH or COGS-I-BCH or COMA-I-BCH or COMP-I-BCH or CSCI-I-BCH or SODE-I-BCH).

CRSS 453/3.0 Principles in Cardiorespiratory Science I

An advanced organ systems approach to the physiological principles underlying cardiac function and oxygen delivery using lectures, seminars, and selected readings. Topics include mechanics and regulation of heart function as well as perturbations in cardiac function. Oxygen delivery and utilization will be examined at the levels of the lung, blood, and tissue. The responses to alterations in oxygen demand and/or supply will also be addressed. Obstructive sleep apnea will be used as a model of a pathological cardiorespiratory system interactions.

NOTE Priority given to students in the CRSS Sub-Plan.

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [(PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 214/6.0* or *PHGY 212/6.0*].

CRSS 454/3.0 Cardiovascular Sciences

A study of the physiology, pharmacology and anatomy of the cardiovascular system. Topics include integrative mechanisms of control and pharmacotherapy involved in short-term and long-term control of the circulation in health and disease.

NOTE Assessment involves essay-style exams, student seminar presentations and a group research project (final oral presentation).

NOTE Also offered online. Consult the Bachelor of Health Sciences program office.

LEARNING HOURS 138 (18L;10S;10G;100P)

PREREQUISITE Level 4 and (registration in a LISC or BCHM Major or Specialization Plan or Bachelor of Health Sciences program) and a GPA of 2.5.

EXCLUSION(S) *LISC 454/3.0*

CRSS 456/3.0 Molecular and Cellular Basis of Cardiovascular Disease

An intensive course surveying the molecular and cellular mechanisms underlying the pathophysiology of the major cardiovascular diseases, and the current and emerging tolls used in their diagnosis and treatment. Alterations in signalling, metabolism, and structure and function will be discussed to present an integrative view of how cardiovascular diseases develop and progress.

NOTE Priority given to students in the CRSS Sub-Plan.

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [(PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*].

CRSS 498/3.0 Cardiorespiratory Rounds

An advanced course in which students attend cardiology and respirology rounds in the Department of Medicine and prepare written and oral reports based on the material presented. The course will provide students with an in-depth exposure to topics in clinical cardiorespiratory science. The course will be offered in alternate years.

NOTE Priority given to students in the CRSS Sub-Plan.

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [(PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*).

CWRI 271/3.0 Writing the City
This course is designed to enhance the craft of writing through the study of literature; it will consist of 50% literary analysis and 50% creative writing. Using the city as our point of departure we will examine and produce diverse portrayals of the urban environment in such varied forms as short stories, blogs, podcasts, fan fiction and poetry.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above

CWRI 272/3.0 Writing Memoir
This course focuses on the writing and reading of memoir. It will involve a combination of writing exercises, workshops, guided readings, and several submissions of student memoir pieces for discussion and marking. A final polished memoir piece will be the major project of the term.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above

CWRI 295/3.0 Creative Writing I
A practical examination of creative writing skills,focused on the writing workshop. The student may concentrate on short fiction or poetry, or a combination of the two, throughout the term.
NOTE Admission is based on writing samples.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Permission of the instructor.

CWRI 393/3.0 Intermediate Writing in Prose
A workshop course focusing on the writing and editing of short fiction, novels, and memoir. Students attempt several different approaches to the writing of creative prose, as well as the process of publication in both magazines and book formats.
NOTE Admission is based on writing samples.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE CWRI 295/3. and permission of the instructor.
EQUIVALENCY *CWRI 293*

CWRI 394/3.0 Intermediate Writing in Poetry
A workshop course focusing on the writing and editing of poetry. Students attempt several different forms within the poetic genre and complete the course with a formal submission for publication in a magazine. There are lectures on editing, publishing, and public performance.
NOTE Admission is based on writing samples.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE CWRI 295/3. and permission of the instructor.
EQUIVALENCY *CWRI 294*

CWRI 397/3.0 The Literary Screenplay
This course offers students an opportunity to learn the craft of writing for dramatic film. The class will be structured as both an academic seminar and a writing workshop. Students will analyze scripts, short stories, and films to prepare themselves for writing a dramatic adaptation of a story.
LEARNING HOURS 162 (36S;120P)
PREREQUISITE *CWRI 293/3.0* or *CWRI 294/3.0 or* CWRI 295/3.0.
EXCLUSIONS ENGL 489/3.0 (Fall 2015 and Winter 2017)

CWRI 496/3.0 Advanced Creative Writing
This course is structured entirely around the creative writing workshop. The concentration is on short fiction and poetry, though memoir and creative non-fiction are options. There is intensive focus on publication and editing, and may include a class-produced anthology, chapbooks or pamphlets.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE CWRI 295/3.0 or CWRI 393/3.0 or CWRI 394/3.0, and permission of the instructor.
EQUIVALENCY *CWRI 296*

DDHT 459/3.0 Principles of Drug Discovery

Advanced study of the early stage components involved in the complex process of drug development including target identification, design and synthesis, structure activity relationships, in vitro and in vivo efficacy determination, biochemical and biological optimization.

NOTE Priority given to students in the LISC Specialization Plan, DDHT Sub-Plan.

LEARNING HOURS 120 (12L;24G;84P)

RECOMMENDATION PHAR 416/3.0.

PREREQUISITE *PHAR 270/3.0* or PHAR 340/3.0 or PHAR 370/3.0 .

EXCLUSION(S) PHAR 480/3.0.

DDHT 460/3.0 Principles of Drug Development

Advanced study of the component parts of the complex process of drug discovery and development and the assessment of human toxicology including drug delivery and formulation, directed toxicology studies, drug disposition, clinical trials, legal issues and regulatory approval.

NOTE Priority given to students in the LISC Specialization Plan, DDHT Sub-Plan.

LEARNING HOURS 120 (36L;84P)

RECOMMENDATION DDHT 459/3.0 and PHAR 416/3.0.

PREREQUISITE *PHAR 270/3.0* or PHAR 340/3.0 or PHAR 370/3.0

EXCLUSION(S) PHAR 480/3.0.

DEVS 100/6.0 Canada and the 'Third World'
Introduces basic theoretical concepts of development studies, the history of global inequality, and short histories of alternative development strategies. Case studies of Canada's ties to the so-called third world will include missionaries, military, business, and aid. Canadian colonialism over First Nations peoples will introduce basic issues in Aboriginal Studies.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 240 (48L;24T;24O;144P)

DEVS 105/3.0 Development Studies in Global Perspectives
This Introductory course to the field of global development studies provides the foundations for interdisciplinary study and action. It provides the thematic grounding and analytical tools to help engage pressing issues using multiple perspectives and a diversity of knowledges.
NOTE DEVS 100 offers a comprehensive 6.0 unit introduction to Global Development Studies. Given the impact of Covid-19 on student course loads, DEVS is also offering DEVS 105 as a 3.0 unit introductory course in the winter term of 2020-21. This course serves as an alternative gateway into global development studies and can be used instead of DEVS 100 as a prerequisite for students seeking to concentrate in DEVS after their first year.
LEARNING HOURS 120(18L;18T;84P)
EXCLUSIONS DEVS 100/6.0

DEVS 220/3.0 Introduction to Indigenous Studies
An introduction to Indigenous ways of knowing organized on a historical basis, from creation to present day, emphasizing Indigenous cultures and experiences in Canada. Students will critically examine colonialism. Indigenous perspectives will be introduced through lecture, reading and assignments, and from contributions from elders, members of Indigenous communities and Indigenous scholars.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)

DEVS 221/3.0 Topics in Indigenous Human Ecology
Indigenous Human Ecology re-evaluates conventional knowledge based on Indigenous knowledge, worldview, and culture. Introduction to an Indigenous perspective on contemporary issues. Lectures and discussion provide detailed examinations of topics such as contemporary issues in Indigenous healing, art, teaching and learning, socio-political life.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T; 84P)
PREREQUISITE DEVS 220/3.0 or permission of the Department of Global Development Studies.

DEVS 230/3.0 The Global Political Economy of Development
Applying global political economy perspectives to key aspects of development finance. Topics include the introduction of basic economic terms, the role of the International Monetary Fund, World Bank, World Trade Organization, and the growing roles of Transnational Corporations and financial markets in development
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 96 (24L;12T;12O;48P)
PREREQUISITE DEVS 100/6.0 (DEVS 100/6.0 can be taken concurrently in exceptional circumstances).

DEVS 240/3.0 Culture and Development
Provides students with a broad overview of debates relating to development and culture, including issues of religion, music, sport, art and literature, and how these interact with economic policy and political change.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE DEVS 100/6.0 and DEVS 230/3.0. (DEVS 100/6.0 can be taken concurrently in exceptional circumstances).

DEVS 250/3.0 Environmental Transformations
Examines the relationship between development and environmental change by introducing social science perspectives on themes including energy, agriculture, climate, urbanization, and water. With a focus on combining macro- and micro-analysis, the course reflects on the meaning of development in an era of global environmental transformation.
LEARNING HOURS 120 (18L;18G;84P)
PREREQUISITE Level 2 or above.

DEVS 260/3.0 Globalization, Gender, and Development
This course is designed for those interested in undertaking a critical analysis of the gendered impact of the globalization process and development policies with a focus on women in the Global South.
NOTE Only offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE [(Level 2 or above or registration in the GAEN certificate) and DEVS 100/6.0] or permission of the instructor.

DEVS 280/3.0 Global Engagement
This course explores current thinking around the motivations for, and ethical implications of, working with communities on issues of social justice, inequality, and sustainable development. Students will engage in self-reflexive practices and work collaboratively to create tools and action plans for ethical global engagement in the future.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (84O;36P)
PREREQUISITE [(Level 2 or above or registration in the GAEN certificate) and DEVS 100/6.0] or permission of the instructor.

DEVS 292/3.0 Topics in Development Studies I
Lectures and courses offered by regular and visiting faculty on development topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each year.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and registration in any DEVS Plan, or permission of the Department.

DEVS 293/3.0 Topics in Development Studies II
Lectures and courses offered by regular and visiting faculty on development topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each year.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 2 or above and registration in any DEVS Plan, or permission of the Department.

DEVS 300/3.0 Cross-Cultural Research Methods
A study of practical issues related to development research and program evaluation in development settings, using a case-study approach. Topics include information retrieval, cross-cultural research methods, basic data analysis, and results-based project evaluation.
LEARNING HOURS 132 (24L;12G;96P)
PREREQUISITE DEVS 100/6.0 and DEVS 230/3.0 and DEVS 240/3.0 (DEVS 100/6.0 can be taken concurrently with DEVS 230/3.0 or DEVS 240/3.0 in exceptional circumstances).

DEVS 305/6.0 Cuban Culture and Society
This course is designed to introduce students to Cuban society and culture. The course will focus especially on the period from the Cuban revolution (1959) to the present. Students will examine some of the main events and highlights of Cuban history, politics and culture in this era. Two weeks of this course will take place at the University of Havana during the month of May.
NOTES 1 Students are expected to pay an ancillary fee for travel and accommodation while in Havana. Estimated cost $3200.00.
2 Students must apply to take the course. Applications are available in the DEVS office during the month of September.
3 Students are expected to attend a pre-departure orientation in late April/early May prior to leaving for Havana, Cuba.
4 Costs and application deadlines will be posted on the DEVS website.
LEARNING HOURS 238 (42S;28O;12OC;48P)
PREREQUISITE Level 3 or above and registration in any Arts and Science Plan.

DEVS 306/3.0 Cuban Culture and Society I
This course introduces students to Cuban society and culture. The focus is on the period from the Cuban revolution (1959) to the present. Students will examine some of the main events and highlights of Cuban history, politics and culture in this era. This is a prerequisite for DEVS 307 Cuban Culture and Society II, held in Havana
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 3 or above and registration in an ASC Plan

EXCLUSIONS No more than 6.0 units from DEVS 305/6.0; DEVS 306/3.0; DEVS 307/3.0

DEVS 307/3.0 Cuban Culture and Society II Havana

An experiential learning course that takes place in Havana, in collaboration with U of Havana. Begins with pre-departure sessions at Queen's followed by two weeks in Havana. Havana instructors include professors, musicians, filmmakers, artists. Havana site visits include museums, art schools, organic gardens, galleries, medical schools, theatres.

NOTE Students are expected to pay an ancillary fee for travel and accommodation while in Havana. Estimated costs $3200.00. Students are expected to attend pre-departure orientation prior to leaving for Havana. Students must apply to take this course.

LEARNING HOURS 120(120Oc)

PREREQUISITE DEVS 306/3.0

EXCLUSIONS No more than 6.0 units from DEVS 305/6.0; DEVS 306/3.0; DEVS 307/3.0

DEVS 340/3.0 Theories of Development

Provides students with an overview of theories that underpin the development enterprise, and critiques of development, through the use of primary texts and critical appraisals.

LEARNING HOURS 120 (24L;12T;84P)

PREREQUISITE DEVS 100/6.0 and DEVS 230/3.0 and DEVS 240/3.0. (DEVS 100/6.0 can be taken concurrently with DEVS 230/3.0 or DEVS 240/3.0 in exceptional circumstances).

EXCLUSIONS POLS 346/3.0.

DEVS 351/3.0 Labour and Global Development

Explores the relationships between the production of goods, the lives and livelihoods of workers, and socio-economic development at local, national and global levels. Issues include: the international division of labour; global commodity chains; technological change; labour markets; informal sector; genders in production; unions and labour rights.

LEARNING HOURS 120 (24L;12T;84P)

PREREQUISITE One of DEVS 230/3.0; SOCY 225/3.0; POLS 262/3.0; GPHY 228/3.0

EQUIVALENCY *DEVS 311/3.0*

DEVS 352/3.0 Technology and Development

An introduction to the socio-economic, cultural and political factors surrounding technology and its relationship to the development process in both advanced industrial societies and developing nations. Student project groups will focus on particular realms of technology in development and the interaction of politics and policy with technological choice and design, including appropriate, intermediate and sustainable technologies.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 3 or above and (registration in any DEVS Plan or registration in any Applied Science Program), or permission of the Department

EQUIVALENCY *DEVS 330/3.0*

DEVS 353/3.0 Business and Global Development

Over the past several decades, business – particularly large multinational corporations – have come to play an increasingly dominant role in global development. This course will interrogate the structures, processes and practices employed by corporations as the forge new partnerships with states, global development organizations and corporations.

LEARNING HOURS 120 (24L;12T;84P)

PREREQUISITE One of COMM 200/3.0; COMM 372/3.0; COMM 375/3.0; COMM 407/3.0; DEVS 230/3.0; DEVS 250/3.0; GPHY 228/3.0; POLS 262/3.0; SOCY 225/3.0.

EQUIVALENCY *DEVS 333/3.0*

DEVS 354/3.0 Cities and Urbanization in the South

This course examines cities and urbanization in countries in the South, looking at similarities and differences between and across regions, and the extent to which these cities connect (or not) with urban areas in the North.

NOTE: Priority will be given to students registered in a DEVS Plan during course selection.

LEARNING HOURS 120 (24L;12T;84P)

PREREQUISITE Level 3 or above and (DEVS 230/3.0 or DEVS 250/3.0)

EQUIVALENCY *DEVS 270/3.0*

DEVS 355/3.0 AIDS, Power, and Poverty
HIV/AIDS is one of the most pressing development issues in the world today. This course examines the cultural, political, economic, and other social factors that contribute to its transmission and intractability, and which help to explain the differential impact of the disease upon societies worldwide. Particular attention is paid to the ways that specific social/sexual identities and practices arising from inequitable class, gender, race, and ethnic relations, affect the prevalence of HIV, the ability to contain its spread, and the human costs that it entails.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 3 or above and (DEVS 100/6.0 or DEVS 220/3.0 or DEVS 221/3.0 or DEVS 230/3.0 or HLTH 101/3.0).
EQUIVALENCY *DEVS 320/3.0*

DEVS 356/3.0 The Political Economy of Resource Extraction
This course analyzes the political economy of resource extraction, focusing on Canadian extraction, domestically and globally. Students will critically examine historical and contemporary extraction and its role in economies, livelihoods and transnational movement (e.g. migration and colonialism) and explore alternative extractive futures.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and (DEVS 230/3.0 or DEVS 250/3.0)
EXCLUSIONS DEVS 392/3.0 *Topic: The Political Economy of Resource Extraction*

DEVS 357/3.0 Global Conflict and Local Peacebuilding
Examining issues facing Indigenous individuals & communities that include ongoing cycles of violence, historical unresolved grief, the transmission of intergenerational trauma, & systemic injustice. Determinants of conflict, war, & disputes by navigating a complex landscape that includes race, gender, & the commodification of violence are examined.
LEARNING HOURS 120(36L;18I;66P)
PREREQUISITE Level 3 or above and (DEVS 220/3.0)
EXCLUSIONS DEVS 392/3.0 *Topic: Global Conflict and Local Peacebuilding.*

DEVS 358/3.0 Non-Governmental Organisations, Policy Making and Development
The first part of the course introduces students to critical theories and debates on NGO's governance, state-society relationships and democracy. The course begins with a broad look at theories of international development and how our understanding of the process of development has changed over time
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 3 or above
EXCLUSIONS DEVS 392/3.0 Non-Governmental Organisations, Policy Making and Development

DEVS 359/3.0 Migration, Refugees and Development
The course examines contemporary issues of 'forced' migration of people to obtain theoretical understanding of processes shaping human mobility and the debates governing inclusion or exclusion of people.
LEARNING HOURS 120(24L;12T;84P)
PREREQUISITE Level 3 or above
EXCLUSIONS DEVS 393/3.0 Migration, Refugees and Development

DEVS 361/3.0 Project Planning and Policy Advocacy
The course prepares students for fieldwork in global development. It connects theory with practice through in-depth, skills-based modules on economic literacy, results-based management (RBM), and policy advocacy. Students will apply core concepts and best practices to effective proposal writing, project management, and policy advocacy.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE [(DEVS 240/3.0 or DEVS 280/3.0) and (Level 2 or above or registration in GAEN certificate)] or permission of instructor.

DEVS 362/3.0 Globally Engaged Experiential Learning
This course builds on DEVS 280/3.0 by facilitating an 80-hour experience related to global engagement. Students will engage with concepts of ethical engagement and relationship building as they are guided through a practical experiential learning opportunity in the field of global engagement.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE [(Level 2 or above or registration in the GAEN certificate) and DEVS 280/3.0] or permission of the instructor.

DEVS 363/3.0 Contemporary Southern Africa: Development Trends and Challenges
This course first provides the historical and regional context necessary to understand urban southern Africa's contemporary struggles, then examines strategies to address key development challenges and how they may be creating opportunities for new ways of thinking about citizenship in South Africa and the Global South more generally.
LEARNING HOURS 120 (24L;12T;8G;84P)
PREREQUISITE Level 3 or above

DEVS 392/3.0 Topics in Development Studies I
Seminars offered by regular and visiting faculty on development topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each year.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and registration in any DEVS Plan, or permission of the Department.

DEVS 393/3.0 Topics in Development Studies II
Seminars offered by regular and visiting faculty on development topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each year.
LEARNING HOURS 132 (24L;12T;96P)
PREREQUISITE Level 3 or above and registration in any DEVS Plan, or permission of the Department.

DEVS 410/6.0 Work Placement in Development Studies
Provides students with first-hand experience working with an agency involved in international development, either in Canada or abroad. The placement will normally be for 10-20 weeks, to be negotiated with the sponsoring agency. Students are required to attend preparatory meetings, prepare a work-study proposal, a research paper on the placement and maintain a journal on a continuing basis while on their placement. In addition to academic requirements, students are required to enroll in the Queen's Emergency Support Program, attend pre-departure orientation and complete Queen's Off-Campus Activity Safety Policy (OCASP) requirements.
NOTE Students are normally responsible for all costs associated with participation in this course.
LEARNING HOURS 260 (60G;200P)
PREREQUISITE Level 3 or above and registration in the DEVS Major Plan and departmental approval in advance from the Head of Global Development Studies.
COREQUISITE DEVS 411/3.0 (Under special circumstances a student can substitute DEVS 502/3.0 (Directed Readings in Development Studies) for DEVS 411/3.0. Permission for the latter may be granted to students who have completed all other degree requirements, and who do not need to return to Queen's University campus following completion of their placement. Students must seek prior approval from the Placement Coordinator, Global Development Studies for this option).
EXCLUSIONS DEVS 420/3.0; *DEVS 432/6.0*

DEVS 411/3.0 Post-Placement Seminar in Development Studies
Required for students who have successfully completed the course requirements for DEVS 410. The course will provide a forum for students to debrief and to critically examine their placement experience. Evaluation based on presentation, participation, journal synthesis and a final report.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE DEVS 410/6.0 and Level 3 or above and registration in the DEVS Major Plan and departmental approval in advance from the Placement Coordinator, Global Development Studies.
ONE-WAY EXCLUSION May not be taken with or after DEVS 420/3.0

DEVS 420/3.0 Study Placement in Development Studies
Participation in an organized educational or cultural exchange, either i) one term of studies at a developing-country university, or ii) an exchange program in a developing-country setting with an organization such as Canada World Youth or Shastri Indo-Canadian Institute for at least 6 weeks. Students are required to prepare a work-study proposal, a risk assessment of their placement and attend a pre-departure orientation. Assessment will also be based on a journal and final report.

NOTE Students participating in the study period at the University of Witswatersand (Wits) in Johannesburg will pay ancillary fee for programming (e.g. cultural field trips, busing). Students will pay all travel and living costs while studying at Wits. The study period at Wits is mid-July to end of August.
LEARNING HOURS 124 (40G;84P)
PREREQUISITE Level 3 or above and registration in the DEVS Major or Medial Plan and departmental approval in advance from the Placement Coordinator, Global Development Studies.
EXCLUSIONS DEVS 410/6.0

DEVS 480/6.0 Reindigenizing People and Environment
600 years of colonialism have greatly harmed this planet's people and environments. Complementary lifeways can balance cognitive, emotional, and physical realities and inform intellectual, scientific, and artistic enquiry. This course attempts to strike that balance, through academic inquiry and visceral experience, in the classroom and on the land.
NOTE Students are required to make application. Contact Department for application information.
NOTE Students are expected to pay an ancillary fee for travel and food costs while in the field. The estimated cost is $400.
LEARNING HOURS 232 (8L;8S;36O;100Oc;80P)
PREREQUISITE DEVS 220/3.0 or GPHY 351/3.0.

DEVS 492/3.0 Topics in Development Studies I
Seminars offered by regular and visiting faculty on development topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each year.
NOTE Taught concurrently with DEVS 8XX/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in the DEVS Major or Medial Plan and (DEVS 300/3.0 or DEVS 340/3.0) or permission of the Department.

DEVS 501/6.0 Honours Thesis in Development Studies
The course will involve a critical review of the literature on a clearly defined topic relevant to development, a synthesis of ideas, and a final thesis under the supervision of a faculty member.
NOTE The student must identify a willing supervisor from DEVS or a cognate department and receive permission of the Department of Global Development Studies.
LEARNING HOURS 240 (24I;216P)
PREREQUISITE Minimum Cumulative GPA of 3.50 and Level 4 and registration in the DEVS Major or Medial Plan.

DEVS 502/3.0 Directed Readings in Development Studies
This course enables a student or a group of students to explore a body of literature on a selected topic in development. The focus may be by theme, by region or by academic approach and can span the humanities, social sciences and environmental sciences.
NOTE The students are responsible for approaching a professor with whom they wish to work and who is willing to undertake this project.
LEARNING HOURS 120 (12I;108P)
PREREQUISITE Minimum Cumulative GPA of 3.50 and Level 4 and registration in the DEVS Major or Medial Plan.

DRAM 100/6.0 Introduction to the Theatre
An exploration of stage production, acting, directing, playwriting, theatre history, dramatic analysis and criticism through use of plays chosen from various periods and representing different styles and genres. Opportunities given for practical projects.
LEARNING HOURS 228 (36L;36Lb;36O;120P)
EXCLUSION(S) (BISC 100/3.0 and 101/3.0)

DRAM 200/6.0 Theatre History and Literature I
A chronological survey of production methods, architecture, performance, and dramatic literature in western and eastern theatre traditions from early classical eras to the end of the 19th century.
LEARNING HOURS 240 (72L;60O;108P)
PREREQUISITE Level 2 or above.
EXCLUSIONS No more than 6.0 units from DRAM 200/6.0; DRAM 201/3.0; DRAM 202/3.0; DRAM 210/6.0.

DRAM 205/3.0 Theatricality and Mass Media
An exploration of theatricality and theatrical communication via an examination of how some major trends in theatre since the 19th century have been represented by film and electronic media. The course will study examples of theatrical works on film and other theatrical responses to social, cultural, and political issues presented in mass media.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 114 (18G;60O;36P)
PREREQUISITE Level 2 or above.

DRAM 211/3.0 Introduction to Theatre for Young Audiences
An introduction to the history and theory of theatre conceived for audiences of young people. Students will read a variety of plays intended for young audiences and consider the social and artistic issues associated with various dramatic and theatrical techniques.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (84O;36P)
PREREQUISITE Level 2 or above.

DRAM 219/3.0 Special Studies I
A seminar or practicum in selected areas of the curriculum.
NOTE Not offered each year. Prerequisites vary depending on specific course content. See Department for details.
PREREQUISITE Level 2 or above.

DRAM 220/3.0 Play Reading and Analysis
A study of applied dramatic literature, including structure, genre, and staging techniques. Students will analyze several plays from various points of view, embracing both theatrical and literary concerns.
LEARNING HOURS 126 (36L;30O;60P)
PREREQUISITE Level 2 or above.
EXCLUSIONS No more than 6.0 units from DRAM 201/3.0; DRAM 202/3.0; DRAM 220/3.0

DRAM 236/3.0 Public Presentation
An introduction to the principles and skills of preparing and delivering effective oral presentations. Using acting techniques and the principles of theatre, students will explore confidence building, vocal and physical dynamics as well as creative expression.
LEARNING HOURS 108 (36G;36Pc;36P)
PREREQUISITE Level 2 or above.

DRAM 237/3.0 Elementary Acting I - The Actor's Instrument
A practical introduction to the fundamental skills and techniques of acting, involving an appreciation of the interdependence of the actor's body, voice, intellect, feeling, and cultural context.
NOTE Priority enrollment given to students in a DRAM, MAPP or STSC Plan.
LEARNING HOURS 120 (36Pc;84P)
PREREQUISITE Level 2 or above and registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan.
EXCLUSIONS No more than 6.0 units from DRAM 237/3.0; DRAM 238/3.0; DRAM 239/3.0

DRAM 238/3.0 Elementary Acting II - Theories and Styles of Acting
A practical introduction to various theories and styles of acting, involving the exploration of various approaches to the cultural and period context of performance.
NOTE Priority enrollment given to students in a DRAM, MAPP or STSC Plan.
LEARNING HOURS 120 (36Pc;84P)
PREREQUISITE Level 2 or above and 6.0 units from (DRAM 100/6.0.; BISC 100/3.0; BISC 101/3.0)
EXCLUSIONS No more than 6.0 units from DRAM 237/3.0; DRAM 238/3.0; DRAM 239/3.0

DRAM 239/3.0 Special Topics in Performance I
Practical work in selected areas of performance. Not offered every year.
NOTE Priority enrollment given to students in a DRAM Plan.
LEARNING HOURS 120 (36Pc;84P)
PREREQUISITE Level 2 or above and 6.0 units from (DRAM 100/6.0, BISC 100/3.0, BISC 101/3.0)
EXCLUSIONS No more than 6.0 units from DRAM 237/3.0; DRAM 238/3.0; DRAM 239/3.0

DRAM 240/3.0 Introduction to Theatre Space
A theoretical and practical introduction to technical production including various elements of theatre space, design and construction, groundplans, and stage management.
NOTE Preference will be given to students registered in a DRAM Plan who require this course for their plan.
NOTE Design Program Fee $25.
NOTE Students in DRAM Major and Medial Plans are strongly encouraged to take DRAM 246/1.5 in their second year concurrently with DRAM 240/3.0.
LEARNING HOURS 120 (18S;18Pc;84P)
PREREQUISITE Level 2 or above and registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan.

DRAM 241/3.0 Design and Theatre
An examination of design elements in theatrical production, exploring the work of design practitioners and theorists, and studying the design process.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of B- in DRAM 240/3.0.

DRAM 242/3.0 Introduction to Theatre Production
A theoretical and practical introduction to theatre production including various elements of design construction, costume, properties, lighting and sound systems and equipment.
NOTE Preference will be given to students registered in a DRAM Plan or who require this course for their plan.
NOTE Costume construction Fee $25.
LEARNING HOURS 120 (18S;18Pc;84P)
PREREQUISITE A grade of B- in DRAM 240/3.0 or FILM 250/6.0.

DRAM 246/1.5 Technical Practicum
A credit/non-credit practicum for 48 hours of extra-curricular work in drama-related fields, including departmental productions.
NOTE Preference will be given to students registered in a DRAM, MAPP or STSC Plan.
LEARNING HOURS 60 (12I;48P)
COREQUISITE DRAM 240/3.0 or DRAM 242/3.0.

DRAM 247/1.5 Drama Practicum
A credit/non-credit practicum for 48 hours of extra-curricular work in drama related fields, including departmental productions.
NOTE Preference will be given to students registered in a DRAM, MAPP or STSC Plan.
LEARNING HOURS 60 (12I;48P)
COREQUISITE DRAM 240/3.0 or DRAM 242/3.0.
EXCLUSIONS MUTH 247/1.5 and MUSC 247/1.5

DRAM 251/3.0 Introduction to Playwriting
Writing of dramatic exercises and one-act plays accompanied by dramaturgical study of published and original works.
NOTE Priority in the on-campus offering of this course is given to students in a DRAM Plan.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.

LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above.

DRAM 273/3.0 Medieval Drama Performance
A practical performance course where students will actively explore historical performance styles and conventions. The focus of this course will be the rehearsal of one or more plays to be presented in period acting style and costume as part of England's Medieval Fair at the culmination of the course.
LEARNING HOURS 104 (36S;32Oc;36P)
PREREQUISITE Level 2 or above.
COREQUISITE DRAM271/3.0.

DRAM 300/6.0 Theatre History and Literature II
A study of production and performance methods, and dramatic literature of the 20th and 21st centuries.
LEARNING HOURS 252 (24L;24S;24G;60O;120P)
PREREQUISITE Level 3 or above.

DRAM 301/3.0 Theories of the Theatre I
An exploration of theoretical questions underlying drama and performance throughout their histories. Selected readings, lectures, student presentations, class discussions and contemplation of theatre issues.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above and registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan.

DRAM 303/3.0 Indigenous Playwrights
A survey of the work of First Nations playwrights, exploring the stories, concerns and aesthetics of these contemporary, mostly Canadian, theatrical practitioners. Course work involves reading, discussion, and writing descriptively, critically or creatively about selected pieces in artistic, social and/or political contexts.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above.

DRAM 306/3.0 Canadian Drama
A study of plays and performance in Canada, concentrating on works since the 1960s. Attention will be paid to experiments by companies and individual playwrights. Texts will be read in English.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

DRAM 311/3.0 Theatre for Young Audiences
The theory and practice of theatre conceived for audiences of young people. Students will read a variety of plays intended for young audiences and consider the social and artistic issues associated with various dramatic theatrical techniques.
LEARNING HOURS 120 (24L;12Pc;84P)
PREREQUISITE Level 3 or above and registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan.

DRAM 314/3.0 Young Peoples' Theatre Practicum
The development and performance of theatre conceived for audiences of young people. The course will begin with an examination of examples of the genre and will culminate in a public performance.
PREREQUISITE A grade of B- in DRAM 311/3.0, or permission of the Department.

DRAM 319/3.0 Special Studies II
A seminar or workshop in selected areas of the curriculum. Not offered every year. See Department for details.
NOTE Prerequisites vary depending on specific course content; consult Department.
PREREQUISITE Level 3 or above.

DRAM 321/3.0 Histories and Theories of Directing
A study of approaches to directing, with examples drawn from both historical and contemporary performance practices. A multiplicity of methodologies, histories, and theoretical approaches to directing will be explored.
LEARNING HOURS 120 (36L:84P)
PREREQUISITE (Level 3 and enrolment in a DRAM, MUTH, MUSC, MAPP, or COCA plan) or permission of the department.

DRAM 323/3.0 Practical Concerns in Directing
Exploration of practical preproduction needs. Topics may include casting, staging, theatre configuration, textual alteration, rehearsal technique, period research, design approaches.
LEARNING HOURS 120 (36Pc;18G;66P)
PREREQUISITE Registration in a (COCA, DRAM, MAPP, MUSC, MUTH, or STSC) plan and a grade of B in DRAM 321/3.0

DRAM 331/3.0 Playing Shakespeare
An introduction to playing Shakespeare. Ways of breathing life into the text thereby communicating a character's thoughts, wants and emotional state to an audience will be explored.
LEARNING HOURS 120 (36Pc;18G;66P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and a grade of B- in (6.0 units from DRAM 237/3.0 or DRAM 238/3.0 or DRAM 239/3.0 or DRAM 273/3.0).
EXCLUSIONS No more than 6.0 units from DRAM 331/3.0; DRAM 332/3.0; DRAM 335/3.0; DRAM 339/3.0; *STSC 300/3.0*

DRAM 332/3.0 Performing with Masks
An extension of core acting skills and an opportunity to develop an appreciation for performance through the medium of mask.
LEARNING HOURS 108 (36G;36Pc;36P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and a grade of B- in DRAM 237/3.0 and (3.0 units from DRAM 238/3.0; DRAM 239/3.0; DRAM 273/3.0).
EXCLUSIONS No more than 6.0 units from DRAM 331/3.0; DRAM 332/3.0; DRAM 335/3.0; DRAM 339/3.0; *STSC 300/3.0*.

DRAM 335/3.0 Acting for the Screen
An introduction to basic on-screen performance techniques. Each student performs behind and in front of the camera although the emphasis is on performance. Acting technique in this course will be centred around the Practical Aesthetics approach to acting.
LEARNING HOURS 120 (36Pc;18G;66P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MUSC, MUTH, or MAPP Plan) and (a grade of B- in DRAM 237/3.0) and (3.0 units from DRAM 238/3.0; DRAM 239/3.0; DRAM 273/3.0).
EQUIVALENCY *STSC 300/3.0*.
EXCLUSIONS No more than 6.0 units from DRAM 331/3.0; DRAM 332/3.0; DRAM 335/3.0; DRAM 339/3.0

DRAM 339/3.0 Special Topics in Performance II
Practical work in selected areas of performance. Not offered every year.
LEARNING HOURS 120 (36Pc;48G;36P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and a grade of B- in DRAM 237/3.0 and (3.0 units from DRAM 238/3.0; DRAM 239/3.0; DRAM 273/3.0).
EXCLUSION(S) No more than 6.0 units from DRAM 331/3.0; DRAM 332/3.0; DRAM 335/3.0; DRAM 339/3.0; *STSC 300/3.0*.

DRAM 342/3.0 Elements of Design Practice
An examination of specific topics in contemporary design practice with special attention to the areas of lighting, costume, and sound design: includes theoretical and practical design projects.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE A grade of B- in DRAM 241/3.0.

DRAM 345/3.0 Applied Technical Production
Advanced technical production studies involving sound, lighting, stage management, wardrobe, and carpentry. Students will participate in major departmental technical projects.
NOTE The normal classroom time of 36 hours is spread over two terms.
LEARNING HOURS 138 (18S;120P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and (a grade of B in DRAM 242/3.0) and DRAM 246/1.5.

DRAM 350/6.0 Playwriting III
Continuation of DRAM 251/3.0. An intermediate study of playwriting and dramaturgy, including exercises in dramatic techniques and composition of original works.
LEARNING HOURS 240 (72S;168P)

PREREQUISITE Level 3 or above and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and a grade of B- in DRAM 251/3.0.
EXCLUSIONS DRAM 351/3.0.

DRAM 351/3.0 Playwriting and Dramaturgy III
Continuation of DRAM 251/3.0. An intermediate study of playwriting and dramaturgy, including exercises in dramatic techniques and composition of original works.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 and (registration in a COCA, DRAM, MAPP, MUSC, MUTH or STSC Plan).
EXCLUSIONS DRAM 350/6.0

DRAM 371/3.0 Modern Drama at the Shaw Festival
Intensive study in the mandate and practice of the Shaw Festival in Niagara-on-the-Lake, Ontario. Students attend several productions at the Shaw Festival, discussing these in seminars and with guest speakers drawn from the Shaw company where available.
NOTE Taught in Niagara-on-the-Lake during summer Term. May be taken in conjunction with DRAM 373/3.0. Students are responsible for the costs of transportation, accommodation and Shaw Festival theatre tickets. Costs vary annually and details may be found on the Department website. Estimated $545.00
LEARNING HOURS 120 (36S;24Oc;60P)
PREREQUISITE Level 3 or above.

DRAM 373/3.0 Scene Study at the Shaw Festival
Intermediate acting course in which a variety of techniques and exercises will be used to explore selected dramatic texts drawn from the mandate of the Shaw Festival - mainly plays written during the lifetime of George Bernard Shaw (1856 to 1950).
NOTE Taught in Niagara-on-the-Lake during Summer Term. Students are responsible for the costs of transportation, accommodation and theatre tickets. Costs vary annually and details may be found on the Department website.
LEARNING HOURS 104 (36S;32Oc;36P)
PREREQUISITE Level 3 or above and (registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan) and (3.0 units from DRAM 331/3.0; DRAM 332/3.0; DRAM 339/3.0).
COREQUISITE DRAM 371/3.0.

DRAM 375/3.0 Women and Theatre I
A survey of selected topics concerning women's participation in international theatre. Emphasis will be on historical, practical and theoretical inquiry and application of feminist methodologies in such work.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or permission of the Department.

DRAM 381/3.0 Contemporary British Theatre and Drama
Examination of the work of selected playwrights, to include world drama currently or recently produced in the British theatre.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 3 standing and permission of the Department.

DRAM 395/3.0 Internship
Students can apply to undertake a practical internship in theatre production or administration.
NOTE Students will be given a grade of Pass/Fail for work done.
LEARNING HOURS 120 (96Oc;24P)
PREREQUISITE Level 3 and (registration in a DRAM Major or Medial Plan) and (a GPA of 2.9 in DRAM) and permission of the Department.
EXCLUSIONS MUSC 395/3.0; MUTH 395/3.0

DRAM 400/6.0 Applied Theatre
A practicum course amalgamating a variety of aspects of theatre and drama.
LEARNING HOURS 240 (72S;72G;96P)
PREREQUISITE Level 4 and registration in a DRAM Major Plan and a GPA of 2.60.

DRAM 419/3.0 Special Studies III
A seminar or workshop in selected areas of the curriculum. Not offered every year. See Department for details.
NOTE Prerequisites vary depending on specific course content; consult Department.
PREREQUISITE Level 4.

DRAM 422/3.0 Directing Practicum I
Students' directing of short scenes will be the basis of practical exploration of directorial methods.
PREREQUISITE A grade of B- in DRAM 323/3.0, or permission of the Department.

DRAM 431/3.0 Advanced Acting - Performance I
Research, rehearsal and presentation of a role for performance.
PREREQUISITE A GPA of 1.70 in 6.0 units from: DRAM 331/3.0; DRAM 339/3.0; DRAM 373/3.0 or permission of the Department.

DRAM 439/3.0 Special Topics in Performance III
Practical work in selected areas of performance. Not offered every year.
NOTE Prerequisites vary depending on specific course content; consult Department.
PREREQUISITE Level 4.

DRAM 448/3.0 Theatre Administration
This course examines a range of administrative and collaborative skills necessary for producing theatre works. Among the areas that will be defined and discussed are marketing, budgeting, fundraising, staffing, and production management, as applied to a variety of types of organizational contexts (commercial, non-profit, university, and community).
LEARNING HOURS 120 (36S;84P)
EQUIVALENCY *DRAM 348/3.0*.
PREREQUISITE Level 4 and registration in a COCA, DRAM, MAPP, MUSC, MUTH, or STSC Plan.

DRAM 476/3.0 Cultures of Theatre
A study of the relationship between the evolving cultural milieu and the theatre. Topics may include funding policies, practitioners' associations, equity, performance spaces, development of traditions.
PREREQUISITE Level 4 and (registration in a DRAM Major or Medial Plan, or COCA-CODR Sub-Plan, MUTH, MAPP. or STSC Specialization Plan) and (a grade of B- in DRAM 300/6.0) and (a GPA of 2.60 in DRAM) or permission of the Department.)

DRAM 500/6.0 Senior Project
An independent advanced project or thesis in any area of the basic curriculum in drama, supervised and evaluated by faculty.
NOTE In addition to the prerequisites indicated, the School may require a grade of A- in any DRAM course relevant to the subject of study.
PREREQUISITE Level 4 and registration in a DRAM Major or Medial Plan and a GPA of 3.5 in DRAM and permission of the School.

DRAM 501/3.0 Directed Special Studies
An independent advanced project or thesis in any area of the basic curriculum in drama, supervised and evaluated by faculty.
NOTE In addition to the prerequisites indicated, the School may require a grade of A- in any DRAM course relevant to the subject of study.
PREREQUISITE Level 4 and registration in a DRAM Major or Medial Plan and a GPA of 3.5 in DRAM and permission of the School.

DRAM 541/3.0 Directed Special Studies in Design
An independent advanced project in the area of design, supervised and evaluated by faculty.
NOTE Application must be submitted by 15 March for Department approval. Consult faculty advisors or supervisor for detailed information. The normal classroom time of 36 hours is spread over two terms.
PREREQUISITE (A grade of B in DRAM 342/3.0 or DRAM 345/3.0) and permission of the School.

DRAM 545/3.0 Directed Special Studies in Technical Production
Advanced examination of various roles in technical production, especially production and stage management, over the full year. Practical stage management projects are a component of the course.

NOTE The normal classroom time of 36 hours is spread over two terms.
PREREQUISITE A grade of A- in DRAM 345/3.0 and permission of the School.

ECON 110/6.0 Principles of Economics
An introduction to economic analysis of a modern mixed economy, including the roles of government. The microeconomics part of the course analyzes the behaviour of individual consumers and producers and the functioning of the market price system. The macroeconomics part examines the functioning of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments.
LEARNING HOURS 240 (72L;24O;144P)
EXCLUSION(S) ECON 111/3.0; ECON 112/3.0

ECON 111/3.0 Introductory Microeconomics
An introduction to microeconomic analysis of a modern mixed economy. The course analyzes the behaviour of individual consumers and producers, the determination of market prices for commodities and resources, and the role of government policy in the functioning of the market system. ECON 111/3.0 and ECON 112/3.0 are together equivalent to ECON 110/6.0.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)
EXCLUSION(S) ECON 110/6.0

ECON 112/3.0 Introductory Macroeconomics
An introduction to macroeconomic analysis of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments. The principles of monetary and fiscal policy are also examined. ECON 111/3.0 and ECON 112/3.0 are together equivalent to ECON 110/6.0.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)
EXCLUSION(S) ECON 110/6.0

ECON 212/3.0 Microeconomic Theory I
Theory of markets and prices: decision-making by individuals and firms, equilibrium conditions under various market structures, and issues of individual and social welfare. This course presumes a knowledge of calculus at the first-year university level.
NOTE A grade of C in this course is required as a prerequisite for ECON 310/3.0.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or (ECON 111/3.0 and ECON 112/3.0).
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0) or MATH 126/6.0.

ECON 222/3.0 Macroeconomic Theory I
A study of the basic models of national income determination and financial markets. The course includes application to policy problems such as inflation, unemployment and balance of payments disequilibria.
NOTE A grade of C in this course is required as a prerequisite for ECON 320/3.0.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or (ECON 111/3.0 and ECON 112/3.0).
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0) or MATH 126/6.0.

ECON 223/3.0 Macroeconomic Policy
Current topics in macroeconomic policy which may include: unemployment and policies to reduce it, government budget deficits, supply-side controversies, financial deregulation, policy coordination, and management of exchange rates. Comparison of policies in Canada, the United States, and other OECD countries.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12G;48O;36P)
PREREQUISITE ECON 110/6.0 or ECON 112/3.0.

ECON 225/3.0 The Economics of the European Union
This course will focus on two major topics: a) the process of economic integration towards a common market in Europe; and b) the coordination of macroeconomic policy within Europe, the operation of the European Monetary System and the movement towards European Union.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (36L;24Oc;60P)
PREREQUISITE ECON 110/6.0 or ECON 112/3.0.

ECON 231/3.0 Emergence of the Modern Industrial Economy
An examination of the origins of modern economic growth concentrating on the industrial revolution in Britain and the prior developments leading up to it. Some attention is directed to the early followers of the changes initiated in Britain.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 232/3.0 The Diffusion of Modern Economic Growth
The spread of industrialization and economic development in Europe and areas beyond in the late 19th and early 20th centuries. The geographic focus may differ from year to year but Germany, Russia and Japan are usually included.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 239/3.0 Economic Development
A survey of the various economic theories and models elaborating the process of development. The course considers the meaning of economic development; the fundamental analytics of economic growth; the barriers to growth; balanced and unbalanced strategies of growth; population, employment and technology problems; foreign-trade and foreign aid issues.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 240/3.0 Canadian Tax Policy
The incentive effects of taxes on the allocation of resources in the economy and their impact on the distribution of wealth in Canada. Reviews Canadian tax policy and evaluates the effects of various federal and provincial taxes on the behaviour of households and firms.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 241/3.0 Economic Aspects of Selected Social Issues
An application of economic analysis to a selection of public policy issues. The topics covered will vary from year to year but examples include regulation of agricultural and industrial markets, health economics, trade policy, natural resource policy, property rights and the 'external' effects of private activities. This course should be of special interest to students of law, political studies and sociology as well as economics.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 243/3.0 The Economics of Health Care
An economic analysis of modern health care institutions, organizations, and markets, both generically and in the Canadian context. A discussion of current Canadian health policy debates and various policy options and reform proposals.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12G;12O;60P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 244/3.0 Economics of Indigenous Communities
An economic critique of policies past and present with regard to First Nations, Inuit, and Métis peoples living in Canada, with reference to relevant cultural, historic, geographic, and governance contexts. In some years material may be more comparative and international in scope.
LEARNING HOURS 120 (24L;12G;48O;36P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 250/3.0 Introduction to Statistics
Statistical methods as used in economics. This course introduces statistical hypothesis testing and covers basic methods as far as linear regression analysis.
NOTE A grade of C in this course is required as a prerequisite for ECON 351/3.0.
LEARNING HOURS 120 (36L;12I;72P)
PREREQUISITE ECON 110/6.0 or (ECON 111/3.0 and ECON 112/3.0).
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0) or MATH 126/6.0.
EXCLUSION(S) STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0; PSYC 202/3.0; SOCY 211/3.0; BIOL 243/3.0; CHEE 209/3.0; GPHY 247/3.0; KNPE 251/3.0 *or PHED 251/3.0*; POLS 385/3.0; NURS 323/3.0

ECON 255/3.0 Introduction to Mathematical Economics
An introduction to the use of mathematics in economic analysis. The first part of the course will concentrate on techniques for constrained and unconstrained optimization, as applied to problems of firm and consumer behaviour. This will lead to the interpretation of Lagrange multipliers as shadow prices. The second part of the course will show how matrix algebra may be used to study problems of production and allocation in interdependent economies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (ECON 110/6.0 or [ECON 111/3.0 and ECON 112/3.0]) and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0] or MATH 126/6.0).

ECON 261/3.0 Canadian Labour Relations
An analysis of the Canadian labour relations system in an economic setting. The socio-economic institutional framework of the industrial and collective bargaining system in Canada provides the background for an analysis of some major emerging issues, such as white collar unionism, unions in the public sector, the public interest in emergency disputes, and the impact of technological change.
LEARNING HOURS 120 (36L;9G;75P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 262/3.0 Labour Markets and Gender Differences
A Canadian perspective on labour market theories, trends, policies and the analysis of differences by gender in labour demand, labour supply, and wages.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 280/3.0 Population and Economic Change
An examination of the interrelationships between changes in the size, composition and distribution of population and changes in the economy. Application is made of some elementary concepts of economic theory and some basic techniques of demographic analysis are introduced. Illustrations are drawn from both the Canadian and the international settings.
LEARNING HOURS 120 (12L;24G;36O;48P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 290/3.0 Environmental Economics and Assessment
An examination of the economic principles and practices for using environmental resources such as air, water, and natural environments. The economically optimal use of these resources is contrasted with actual uses in modern economies. Government policies are examined in theory and in practice. Cost benefit analysis is presented as a technique for evaluating public sector projects using environmental resources.
LEARNING HOURS 120 (36L;18G;66P)
PREREQUISITE ECON 110/6.0 or ECON 111/3.0.

ECON 310/3.0 Microeconomic Theory II
A rigorous examination of the central core of microeconomic theory. Consumer demand, the theory of production, product and factor markets, general equilibrium and some aspects of welfare economics are covered. The emphasis is on techniques of analysis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (A grade of C in ECON 212/3.0) and ECON 255/3.0 and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0] or MATH 126/6.0).

ECON 320/3.0 Macroeconomic Theory II
An advanced study of the determinants of aggregate demand and the structure of Keynesian and new classical models. Policy issues covered include crowding out, choice of monetary policy instruments, and monetary policy and the exchange rate.
LEARNING HOURS 120 (30L;6G;6O;78P)
PREREQUISITE (A grade of C in ECON 222/3.0) and ECON 255/3.0 and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0] or MATH 126/6.0).

ECON 322/3.0 Financial Markets and Risk Management
An in-depth coverage of portfolio selection theory, performance evaluation and derivative pricing theory. Portfolio risk management and hedging are introduced. Discussions on widely used derivative products including futures and options. Students will be exposed to the most recent developments in financial markets.
LEARNING HOURS 120 (36L;12G;72P)
PREREQUISITE ECON 212/3.0 and (ECON 250/3.0 or STAT 263/3.0); MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0] or MATH 126/6.0.
EXCLUSION(S) COMM 324/3.0.

ECON 325/3.0 International Trade Policy
An introduction to the theory of comparative advantage followed by a study of trade policies in developed and developing countries including tariffs and quotas, licensing arrangements, anti-dumping and safeguard mechanisms, domestic content rules and other non-tariff barriers, and multilateral arrangements.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 212/3.0.

ECON 331/3.0 Economic History of North America to 1865
Uses the methods of economic analysis to examine the main features of the development of Canada before Confederation and the United States through the Civil War.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 212/3.0.

ECON 332/3.0 Economic History of North America since 1865
The development of the economies of Canada from Confederation and the U.S. since the Civil War. A comparative approach to the development of the two economies is taken.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 212/3.0.

ECON 348/3.0 Law and Economics
Costs and benefits of legal rules. Among the topics covered are: the justification, acquisition, scope and taking by the state of property rights, the enforcement of and remedies for breach of contract, the assignment of liability in traffic accidents and harm from dangerous products, the costs of litigation and the optimal severity of punishment for crime with special reference to the death penalty.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 212/3.0.

ECON 351/3.0 Introductory Econometrics
Estimation and inference in multivariate econometric models. Emphasizes understanding of methods and their properties as distinct from formal theoretical development. Practical tools for preparing and analyzing data with appropriate models are taught using econometric software.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE (A grade of C in ECON 250/3.0 or STAT 263/3.0) and (MATH 120/6.0 or MATH 121/6.0 or [MATH 123/3.0 and MATH 124/3.0] or MATH 126/6.0).
COREQUISITE ECON 255/3.0.
EXCLUSION(S) STAT 361/3.0.

ECON 354/3.0 Computational Methods in Economics and Finance
An introduction to numerical methods as used in economics, finance, and related fields. Topics include optimization, non-linear systems, numerical approximation, and simulation. Includes a major project where students implement economic models or replicate work found in the literature.
NOTE Programming experience is recommended but not required. Students with a strong math or computing background can contact the department for permission.
LEARNING HOURS 120 (36L;18G;66P)
PREREQUISITE ECON 255/3.0.
COREQUISITE ECON 250/3.0 or STAT 263/3.0.

ECON 360/3.0 Labour Economics
An analytical course covering topics in labour supply analysis, the economics of human capital, labour demand, the operation of labour markets, the economic behaviour and effect of unions, and selected aspects of wage structure.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 212/3.0.

ECON 361/3.0 Income Distribution and Problems of Inequality
A review of theories of the principal determinants of the distribution of income and wealth including labour supply, life-cycle savings, ability and investment in human capital, discrimination, intergenerational transfer mechanisms. Also examined are the distributional aspects of government tax transfer and social security programs.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 212/3.0.

ECON 370/3.0 Urban and Regional Economics
Topics vary from year to year, reflecting the interests of students and the instructor. One-third of the course is devoted to spatial theory and two-thirds to the application of economic theory to such problems as optimal city size, urban public finance, pollution and aesthetics, and housing, transportation and poverty problems in the urban setting.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 212/3.0.

ECON 371/3.0 Economics of Regulation
Examines regulated industries such as electrical utilities, communication, transportation and agriculture. Addresses traditional questions relating to pricing rules and some recent work in political economy that attempts to explain why society has adopted the particular form of intervention that has occurred.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 212/3.0.

ECON 390/3.0 Natural Resource Economics
The study of the exploitation and conservation of natural resources such as fisheries, forestry, minerals and energy, and the implications for public policy using tools of economic analysis. Issues relating to the quality of the environment and role of natural resources in the growth and development of the economy are also emphasized.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 212/3.0.

ECON 391/3.0 Topics in Environmental Economics
This course provides a solid understanding of the economic causes and consequences of environmental problems and suggests practical solutions. Microeconomic analysis is used to help address a range of issues related to the environment. Likely topics include global environmental problems, sustainable development, environmental law, strategic models of regulation, environmental ethics, and bioeconomic models.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 212/3.0.

ECON 411/3.0 Topics in Microeconomic Theory
Content varies from year to year. Game theory, risk, and externalities are among the topics covered in recent years.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 310/3.0.

ECON 421/3.0 Topics in Macroeconomic Theory
An advanced discussion of selected topics in macroeconomic theory, policy, and evidence. Analysis uses: two-period models; linear, rational expectations models; overlapping generations models; and the neoclassical growth model. These methods are applied to such topics as: asset-pricing; hyperinflation; exchange-rate overshooting; Ricardian equivalence; international evidence on sources of economic growth. Detailed reference is made to empirical evidence.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 310/3.0 and ECON 320/3.0.

ECON 422/3.0 Monetary Economics
Topics in monetary theory and policy, depending upon the interests of the instructor and students. Examples include the foundations of monetary theory; money supply and demand; portfolio choice; monetary aspects of the balance of payments; money and economic growth; financial markets; the term structure of interest rates.
LEARNING HOURS 120 (36L;6O;78P)
PREREQUISITE ECON 310/3.0 and ECON 320/3.0.

ECON 423/3.0 Topics in Financial Economics
Selected topics in financial economics. Topics may include: the microeconomics of banking; pricing of financial instruments; risk management and financial markets infrastructure; financial choices under uncertainty and general equilibrium. Students are directed to the undergraduate website for a detailed description yearly.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 310/3.0 and ECON 322/3.0.
COREQUISITE ECON 351/3.0.

ECON 425/3.0 International Trade Theory and Policy
A rigorous treatment of the major issues in international trade theory, using mainly geometrical tools. There is also emphasis on empirical testing of various hypotheses. The major topics covered are the determinants of international trade patterns, commercial policy issues, trade and economic growth and regional integration.
LEARNING HOURS 120 (36L;6G;6O;72P)
PREREQUISITE ECON 310/3.0.

ECON 426/3.0 International Macroeconomics
The study of international capital flows, sovereign debt, and international risk-sharing; real exchange rates and international goods pricing; topics in international finance such as exchange-rate modeling and speculative attacks; and policy topics such as fiscal and monetary policy effects and exchange-rate regime choice.
LEARNING HOURS 120 (36L;12I;72P)
PREREQUISITE ECON 310/3.0 and ECON 320/3.0.

ECON 430/3.0 Issues in Economic History
An advanced course in economic history that explores a selection of topics debated in the literature. An emphasis is placed on the use of economic analysis to deal with historical issues. The topics vary from year to year and usually concern mainly, but not exclusively, North America. Offered concurrently with ECON 831/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE 3.0 units from ECON 231/3.0; ECON 232/3.0; ECON 331/3.0; ECON 332/3.0.
COREQUISITE ECON 310/3.0 and ECON 351/3.0.

ECON 435/3.0 Development Economics
Microeconomic issues: land, labor, credit, and insurance markets; duality; alternate views of the role and evolution of non-market institutions in the development process. Macroeconomic issues: urban migration; inequality and development; population growth and technical change; internal factor accumulation versus TFP growth. Offered concurrently with ECON 835/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 239/3.0 and ECON 310/3.0 and permission of the Department.
COREQUISITE ECON 351/3.0.

ECON 437/3.0 Cost-Benefit Analysis
A course covering the techniques and applications of cost-benefit analysis and project evaluation. Topics include the foundations of cost-benefit analysis; investment decision rules; the social discount rate; risk and uncertainty; and the shadow pricing of inputs. Objectives such as income distribution and macro-economic goals are also considered.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 255/3.0 and ECON 310/3.0 and permission of the Department.

ECON 440/3.0 Public Economics
The study of public goods, redistribution of income, and taxation, with emphasis on efficiency and equality as criteria for decision-making in the public sector.
LEARNING HOURS 120 (36L;6O;78P)
PREREQUISITE ECON 310/3.0.

ECON 442/3.0 Topics in Public Economics
Selected topics in the theory of public economics and related policy questions. Content varies from year to year. Topics may include: the role of asymmetric information in public economics, tax policy, design of redistributive programs, fiscal federalism, and selected aspects of Canadian public policy. Students are directed to the undergraduate website for a detailed description.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ECON 310/3.0.

ECON 443/3.0 Issues in Microeconomic Policy
Selected topics in microeconomic policy. Topics may include: climate change, health economics, national security (defense economics), globalization and/or regional development, and demographic change. Students are directed to the undergraduate website for a detailed description.
LEARNING HOURS 120 (36L;18G;66P)
PREREQUISITE ECON 310/3.0.
EXCLUSION(S) ECON 443/3.0 (Topic: Behavioural Neuroeconomics) and PSYC 398/3.0 (Topic: Behavioural Neuroeconomics).

ECON 445/3.0 Industrial Organization and Public Policy
An analysis of industry structure, conduct and performance in the Canadian economy, including the major features and current issues of competition policy.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 310/3.0.

ECON 450/3.0 Advanced Econometrics
Estimation methods, including least squares and maximum likelihood; specification testing, including t, F, likelihood ratio and Lagrange multiplier tests; serial correlation and heteroskedasticity; dynamic models and simultaneous equation models. Extensive use of calculus and linear algebra. Offered concurrently with ECON 852/3.0.
LEARNING HOURS 120 (36L;6G;78P)
PREREQUISITE ECON 351/3.0 and ECON 452/3.0 and permission of the Department.

ECON 452/3.0 Applied Econometrics
Emphasizes problems in specifying and estimating econometric models, methods available for detecting and handling these problems, and economic applications. Extensive use of matrix algebra.
LEARNING HOURS 120 (36L;12G;72P)
PREREQUISITE ECON 255/3.0 and (ECON 351/3.0 or STAT 361/3.0).

ECON 455/3.0 Mathematical Economics
Applications of mathematics in economic analysis. Topics covered will generally include a review of optimization techniques as applied to consumer and producer theory, comparative statics, the envelope theorem, duality theory, welfare economics and general equilibrium theory. Optimization techniques to be covered will include nonlinear and dynamic programming. Offered concurrently with ECON 855/3.0.
LEARNING HOURS 120 (36L;12G;72P)
PREREQUISITE ECON 255/3.0 and ECON 310/3.0 and permission of the Department.

ECON 480/3.0, 481/3.0, 482/3.0, 483/3.0, 484/3.0, 485/3.0, 486/3.0, 487/3.0, 488/3.0, 489/3.0
Seminars in Microeconomics

Series of seminar courses on microeconomic topics. Evaluation based on presentations, formal/informal participation and written papers. Offerings vary from year to year with staff availability. Topics announced in advance of course selection and available on the Undergraduate webpage.

NOTE Fourth year ECON Medial students with fewer than 30.0 ECON units and fourth year APEC students without ECON 320 should contact the department before May 1 to obtain permission to register in this course.

LEARNING HOURS 120 (18S;18G;12I;72P)

PREREQUISITE Level 4 and (a minimum cumulative GPA of 1.90) and (a minimum GPA of 2.60 in 30.0 units of ECON) and (ECON 310/3.0; ECON 320/3.0; ECON 351/3.0).

EXCLUSION(S) ECON 480-499/3.0.

ECON 490/3.0, 491/3.0, 492/3.0, 493/3.0, 494/3.0
Seminars in Macroeconomics

Series of seminar courses on macroeconomic topics. Evaluation based on presentations, formal/informal participation and written papers. Offerings vary from year to year with staff availability. Topics announced in advance of course selection and available on the Undergraduate webpage.

NOTE Fourth year ECON Medial students with fewer than 30.0 ECON units and fourth year APEC students without ECON 320 should contact the department before May 1 to obtain permission to register in this course.

LEARNING HOURS 120 (18S;18G;12I;72P)

PREREQUISITE Level 4 and (a minimum cumulative GPA of 1.90) and (a minimum GPA of 2.60 in 30.0 units of ECON) and (ECON 310/3.0; ECON 320/3.0; ECON 351/3.0).

EXCLUSION(S) ECON 480-499/3.0.

ECON 590/6.0 Thesis

Optional for those in the B.A.(Honours) program with a major concentration in Economics or Applied Economics. The thesis is a major research paper to be undertaken with supervision of a faculty adviser. The thesis proposal should be presented to the Department by 31 October in the graduating year and a completed thesis must be submitted to the Department by the end of the Winter Session in the graduating year.

NOTE Enrolment is limited.

LEARNING HOURS 240 (48I;192P)

PREREQUISITE Level 4 and registration in an ECON or APEC plan and permission of the Department.

EMPR 100/3.0 Introduction to Employment Relations
This is a survey course designed to introduce students to contemporary challenges and the primary academic fields in the study and practice of employment relations: Human Resource Management, Organizational Behaviour, Labour Relations, Negotiations and Conflict Resolution, Labour and Employment Law, and Workplace and Labour Market Policies.
LEARNING HOURS 120 (36L;12O;72P)

EMPR 110/3.0 Workplace Communication and Interpersonal Skills
This first year course introduces students to the critical interpersonal competencies and communication skills required in contemporary workplaces. Students will gain and apply knowledge of foundational theories in communication and organizational behaviour to develop their professional written, oral, and interpersonal skills.
LEARNING HOURS 120 (36L;12G;12O;60P)
EXCLUSIONS COMM 105/3.0

EMPR 200/3.0 Work and Employment Relations in Canada
This is an introductory course which focuses on the key factors which shape work and employment relations in Canada. Topics covered include aspects of labour and employment law, labour relations, human resources management, human behaviour in organizations, and labour markets and labour policies that govern workplace relations.
NOTE Only offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 2 or above.

EMPR 210/3.0 Employment Relations and Labour Law
This introductory course will provide students a foundation to understand employment law in Canada. The course will examine the principles of employment law with a primary focus on current provincial and federal legislation affecting human resource management in a non-unionized setting.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 2 or above.
EXCLUSIONS LAW 203/3.0; LAW 560/4.0; LAW 567/3.0.

EMPR 220/3.0 Conflict Management
This course provides an overview of conflict, with a focus on developing the analytical, interpersonal, and communication skills necessary to manage conflict in the workplace. Specifically, it examines the reasons that conflict arises, and how to productively manage conflict across levels (between people, within groups, and between groups).
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (48O;72P)
PREREQUISITE Level 2 or above.

EMPR 230/3.0 Managing Human Resources and Employment Relations
This course will provide an overview of the key components of an effective organizational human resource management system, running the spectrum from recruitment and selection practices that ensure that an organization is staffed appropriately, to management approaches aimed at bringing out the best in employees once hired.
NOTE Only offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 2 or above.
EXCLUSIONS COMM 181/3.0

EMPR 240/3.0 Workplace Policies and Governance
The accelerating pace of market, economic, and technological change present many challenges to modern Canadian workplaces. This course examines how employers, employees, and governments seek to resolve workplace problems. By enacting workplace policies, it is hoped that workplaces maximize productivity while delivering fairness to its workforce.
NOTE Only offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 2 or above.

EMPR 250/3.0 Managing Workplace Health, Safety, and Wellness
This course introduces students to employment relations practices and legislative frameworks related to workplace health and wellness. The course examines roles and responsibilities of employers, employees, and unions in occupational health and safety. Students will explore efforts to address stress and promote wellness, including mental health.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

EMPR 260/3.0 Advancing Equity, Diversity, and Inclusion in the Workplace
The course considers the workplace policies, laws, and human resource management and labour relations practices that advance equity and diversity in the workplace. This course examines the nature and extent of diversity in the Canadian labour force and the implications for establishing and supporting equitable, diverse and productive workforces.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

EMPR 270/3.0 Introduction to Organizational Behaviour
This in an introductory survey course of theory and research on individual and group processes (including personality, motivation, communication, and leadership), as well as structural and economic forces (including organizational design, power relations, inter-organizational ties, social norms, and laws) that shape the contemporary workplace.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS COMM 151/3.0; COMM 251/3.0

EMPR 280/3.0 Finance and Accounting for HR Professionals
This course focuses on the fundamentals of accounting in the operations of the business, the type of information presented in financial statements, and the importance of accounting in relation to HR and employment relations. The course is designed to provide a foundation for HR professionals and other non-financial managers.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS COMM 111/3.0; COMM 211/3.0; COMM 112/3.0; COMM 212/3.0

EMPR 320/3.0 Workplace Mediation and Alternative Dispute Resolution
This course introduces students to the various models of mediation used in the modern workplace to resolve conflicts as well as a variety of other emerging alternative dispute resolution (ADR) processes. Students are introduced to the theory, process, and practice of workplace mediation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE EMPR 200/3.0 or EMPR 220/3.0.

EMPR 330/3.0 Strategic HR Management: Building High Performance Workplaces
High performance work systems (HPWS) refer to a series of interrelated practices in the management of human resources. In this course, students will learn how to design, implement, and manage a variety of high performance work practices in accordance with organizational strategy and culture.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE EMPR 230/3.0.

EMPR 331/3.0 Compensation
Compensation, including direct wages, indirect payments, and employee benefits, is studied in the context of economic and motivational theory, and from the point of view of practice. Topics include strategic perspectives on pay, pay equity legislation, internal equity and alignment of pay structures, external competitiveness, pay for performance.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE EMPR 200/3.0 or EMPR 210/3.0 or EMPR 230/3.0.

EMPR 335/3.0 Managing Employee Attitudes for Organizational Success
There is increasing recognition of the critical role of managers in shaping key employee attitudes (job satisfaction, motivation, and engagement), with important effects for organizational performance. Students will explore a range of theories and practices that are demonstrated drivers of employee attitudes and organizational success.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE EMPR 200/3.0 or EMPR 230/3.0.

EMPR 370/3.0 Human Resource Analytics

This course introduces students to the foundational logic, metrics, analysis, and interpretation needed to link human resource practices to broader indicators of business strategy and organizational performance. Students will learn to gather, analyze, and interpret HR metrics to make better decisions about managing people in organizations.

LEARNING HOURS 120 (24L;24G;12O;60P)

PREREQUISITE 3.0 units from EMPR at the 200-level.

ENGL 100/6.0 Introduction to Literary Study
An introduction to literary study, with an emphasis on the formal analysis of a diverse range of poetry and prose. Specific content and approach vary from section to section, but all sections share the goals of developing sensitivity to genre, cultivating writing skills, and providing students with a set of literary terms and critical techniques as a foundation for further literary study.
NOTE Enrolment preference is given to first-year students.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 240 (48L;24T;168P)

ENGL 160/6.0 Modern Prose Fiction
This course is designed to promote interest in and understanding of modern prose fiction by introducing students to a selection of the best novels and short stories of the 20th century. British, American, and Canadian authors are represented.
NOTE Enrolment is limited to students not registered in an ENGL Plan. This course cannot be counted toward an ENGL Plan nor used as a prerequisite for upper-year ENGL courses.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE Level 2 or above, or permission of the Department.

ENGL 161/3.0 Modern Prose Fiction l
This course is designed to promote interest in and understanding
of modern prose fiction by introducing students to a selection of the best novels and short stories of the 20th century from across the globe.
NOTE ENGL 161 is offered in the Fall term, and is linked to ENGL 162, which is offered in the Winter; although students are encouraged to enroll in both 161 and 162, these are separate courses that can be taken on their own.
NOTE Enrolment is limited to students not registered in an ENGL Plan. This course cannot be counted toward an ENGL Plan nor used as a pre-requisite for upper-year ENGL courses.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2 or above, or permission of the department
EXCLUSIONS ENGL 160/6.0

ENGL 162/3.0 Modern Prose Fiction ll
This course is designed to promote interest in and
understanding of modern prose fiction by introducing students to a selection of the best novels and short stories of the 20th century from across the globe.
NOTE ENGL 162 is offered in the Winter term, and is linked to ENGL 161, which is offered in the Fall; although students are encouraged to enroll in both 161 and 162, these are separate courses that can be taken on their own.
NOTE Enrolment is limited to students not registered in an ENGL Plan. This course cannot be counted toward an ENGL Plan nor used as a prerequisite for upper-year ENGL courses.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2 or above, or permission of the Department
EXCLUSIONS ENGL 160/6.0

ENGL 200/6.0 History of Literature in English
An historical survey of literature from the British Isles and beyond. Through the study of representative works, the course aims to familiarize students with the characteristics of literary periods from the Middle Ages to the present.
NOTE Enrolment preference is given to students registered in ENGL Plans.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.
EXCLUSIONS *ENGL 110/6.0*.

ENGL 206/3.0 History of the English Language
A survey history of the English language from its origins in proto-Indo-European to the variety of contemporary world Englishes, with special emphasis on English as a language of literature.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0 or (registration in a LING Plan).

ENGL 211/6.0 Medieval European Literature
Introduction to the literature of Britain and Western Europe from the tenth to the fifteenth centuries. Non-English works are read in translation; some training in Middle English is provided. Readings may include romance, troubadour poetry, history and pseudo history, drama, women's writing, and authors such as Dante, Boccaccio, and Chaucer.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0 or (registration in a MDVL Minor Plan).

ENGL 215/6.0 Canadian Literature
A survey of Canadian literature in English from its beginnings to the contemporary period. Readings will include poetry, short fiction and nonfiction, as well as novels from various eras; authors to be studied may include Moodie, Atwood, Klein, Richler, Callaghan, Ondaatje, Laurence, Munro, Brand, and King.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.

ENGL 216/6.0 American Literature
A survey of American prose and poetry from the Puritans to the present.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.

ENGL 217/3.0 Postcolonial Literatures
A comparative survey of representative works of literature from around the globe (including Africa, Australia, the Caribbean, and the Indian subcontinent) that engage with the history and legacy of colonialism. Themes under consideration may include cultural memory; economic underdevelopment; hybrid identity; linguistic diversity; political resistance.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0 or (registration in a DEVS Plan).

ENGL 218/3.0 Introduction to Indigenous Literatures in Canada
This course examines Indigenous novels, traditional stories, poetry, short stories, and plays from various time periods, written by Métis, Inuit, and First Nations authors. We will study the themes, aesthetics, and politics of the texts, using a combination of culturally specific and pan-Indigenous approaches.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 222/3.0 Selected Women Writers Pre-1900
A survey of women writers from before 1900. The historical and geographical focus of the course may vary from year to year; for details, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and Registration in a GNDS Plan

ENGL 223/3.0 Selected Women Writers Post-1900
A survey of women writers from after 1900. The historical and geographical focus of the course may vary from year to year; for details, consult the Department.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0 or (registration in a GNDS Plan).

ENGL 231/3.0 Special Topics in Genre I
For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISTE Level 2 or above

ENGL 232/3.0 Special Topics in Genre II
For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 234/3.0 The Short Story in English
A study of this relatively modern genre with emphasis on methods of close textual analysis of European, British, and North American texts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 235/3.0 Life Writing
Life writing includes autobiography, biography, diaries, letters, and memoirs. The aim of this course will be to explore its generic conventions and innovations, to consider the interplay between lived experience and its textual representation, and to examine the social and cultural dimensions of life stories.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 237/3.0 Children's Literature
A critical study of literature written for children or appropriated by adults for the nursery. The emphasis will be on distinguishing the characteristics and cultural significance of a variety of works from the medieval to the modern period.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above

ENGL 238/3.0 Comics and Graphic Novels
A study of the art of graphic narrative from newspaper strips of the Golden Age to current graphic novels, comprising history, aesthetics, and close reading of graphic narrative as a form of literature.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 244/3.0 Modern British Fiction
A study of modern fiction, including works by such writers as James, Conrad, Ford, Joyce, Woolf.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 245/3.0 Modern British Poetry and Drama
A study of the form and technique in modern poetry and plays by such writers as Yeats, Eliot, Auden, Shaw, Beckett.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above

ENGL 251/3.0 Authors in Context: Special Topics I
For detailed information, consult the department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 252/3.0 Authors in Context: Special Topics II
For detailed information, consult the department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 256/6.0 Shakespeare
A study of Shakespeare's plays in relation to the social, intellectual, and political climate of the Elizabethan and Jacobean periods and with reference to theatrical production.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.
EXCLUSIONS ENGL 257/3.0; ENGL 258/3.0.

ENGL 257/3.0 Elizabethan Shakespeare
A study of eight of Shakespeare's plays in relation to the social, intellectual, and political climate of the Elizabethan period and with reference to theatrical production.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.
EXCLUSIONS ENGL 256/6.0

ENGL 258/3.0 Jacobean Shakespeare
A study of eight of Shakespeare's plays in relation to the social, intellectual, and political climate of the Jacobean period and with reference to theatrical production.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.
EXCLUSIONS ENGL 256/6.0

ENGL 259/3.0 Global Shakespeare
A study of the dissemination of Shakespeare's plays across a range of cultures and sites from the early seventeenth century to the present, with a focus on the development of Shakespeare as a "global" author. Selected plays will be studied in historical context and in geographically diverse adaptations in theatrical, print, and electronic media.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 271/3.0 Issues and Themes: Special Topics I
For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 272/3.0 Issues and Themes: Special Topics II
For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 273/3.0 Literature and the Fantastic
A study of literature dealing with the fantastic or containing supernatural or uncanny elements. This course may include samples of myth, romance, Gothic literature, and fantasy from a variety of periods.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.
EXCLUSIONS GRMN 429/3.0; LLCU 329/3.0.

ENGL 274/3.0 Literature and War
A study of texts that have war as their subject, examining the cultural functions war literature performs (such as recruiting, celebrating, healing, mourning, witnessing, commemorating, protesting), as well as its role in the construction of collective memory and national identity. The particular focus may vary from year to year; for detailed information, consult the department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 276/3.0 Literature and the Environment
Through study of literary texts, this course will introduce students to a range of ways humans have imagined or documented their relation to the natural world. Students will engage with a range of cultural perspectives including indigenous environmental knowledge. Assignments will include personal reflection, essay, and exam.
LEARNING HOURS 123(33L;6Oc;84P)
PREREQUISITE Level 2 or above

ENGL 277/3.0 Literature and Gender
This course will explore how different literary works represent desire, romance, queerness, and other gender-related issues. Particular focus may vary from year to year; for detailed information, consult the Department.

LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above and Registration in a GNDS Plan.

ENGL 278/3.0 Literature and Place
A study of English-language literature emphasizing or relating to its sense of place. Course content may vary from year to year.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 279/3.0 Literature and Censorship
Students will read a range of controversial books, and discuss the contexts and content of calls that they be banned. What ideas about literature, religion, and social order underpin such initiatives? Can limiting access to literature ever be justified? Authors may include Milton, Rushdie, Hitler, Twain, Nabokov, Joyce, Lee, and Morrison.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 281/3.0 Legends of King Arthur: Medieval to Modern
This course investigates the enduring popularity of the legend of Arthur, with an emphasis on its adaptability to the changing values and viewpoints of different cultural moments (Celtic, Medieval, Victorian, Modern). Themes to be investigated may include chivalry, courtly love, the grail quest, national identity, politics and gender relationships.
NOTE Medieval texts will be read in modern translation.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above

ENGL 283/6.0 Contemporary Canadian Literature
A study of particular issues and themes in Canadian literature from the 1970s to the present (e.g., postmodernism, multiculturalism, gender and sexual diversity, class relations, migration).
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.

ENGL 284/3.0 Issues and Themes in Canadian Literature I
A study of one particular issue or theme in Canadian literature. For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 285/3.0 Issues and Themes in Canadian Literature II
A study of one particular issue or theme in Canadian literature. For detailed information, consult the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 290/3.0 Seminar in Literary Interpretation
An intensive study of one text or a cluster of related texts, cultivating close reading skills through discussion. The course develops students' writing abilities and also introduces the basic research tools of literary studies.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE ENGL 100/6.0 and (registration in an ENGL Major or Medial Plan).

ENGL 291/3.0 Literature on Screen and Stage
A study of the relationships between literary texts written in English, from classics to contemporary popular fiction, and their adaptations in a range of media, comprising close analysis, historical and cultural investigation into national and transnational formulations of adaptation, and discussion of the processes and theories of adaptation.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 292/6.0 Introduction to Literary Criticism and Theory
Emphasizes literary, rhetorical, and critical terminology, the variety of critical approaches, and the ways in which critical practices (e.g., of editing, interpretation, or evaluation) are related to literary theory. Surveys works of literary theory ranging from ancient to contemporary times.
NOTE Enrolment preference is given to Majors and Medials.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE ENGL 100/6.0.

ENGL 293/3.0 Introductory Approaches to Cultural Studies
Introduces cultural studies from a primarily literary perspective, surveying critical approaches associated with this interdisciplinary field of study, and paying special attention to the study of popular culture and questions of aesthetic value through readings drawn from a range of pop cultural genres (such as horror, romance, crime fiction).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 294/3.0 Cultural Studies: Theory into Practice
In-depth exploration of the cultural significance of one particular genre, issue, or theme (for instance, spy fiction, literary prizes, youth subcultures). Topics may vary from year to year; for detailed information, consult the departmental website.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ENGL 100/6.0.

ENGL 296/3.0 Introduction to Literary Criticism and Theory l
Surveys influential works of literary and critical theory, with a particular focus on contemporary movements that have informed the interpretation and evaluation of literary texts (e.g., formalism, Marxism, psychoanalysis, deconstruction, postcolonialism, feminist and queer studies).
NOTE ENGL 296 is offered in the Fall term, and is linked to ENGL 297, which is offered in the Winter; although students are encouraged to enroll in both 296 and 297, these are separate courses that can be taken on their own.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2 or above
EXCLUSIONS ENGL 292/6.0

ENGL 297/3.0 Introduction to Literary Criticism and Theory ll
Surveys influential works of literary and critical theory, with a particular focus on contemporary movements that have informed the interpretation and evaluation of literary texts (e.g., formalism, Marxism, psychoanalysis, deconstruction, postcolonialism, feminist and queer studies).
NOTE ENGL 297 is offered in the Winter term, and is linked to ENGL 296, which is offered in the Fall; although students are encouraged to enroll in both 296 and 297, these are separate courses that can be taken on their own.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2 or above
EXCLUSIONS ENGL 292/6.0

ENGL 306/6.0 The Northern World: Vikings and Saxons
A survey of major literary works written in Old English and Old Norse from the ninth to the thirteenth centuries. Readings will include sagas, epics, elegies, riddles, mythology, as well as historical and religious writing. Texts will be read in translation.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) or [(a GPA of 2.6) and (registration in a MDVL Plan)].

ENGL 310/6.0 Medieval Literature of the British Isles
A survey of vernacular literature composed in the British Isles before 1500. Readings may be taken from Welsh, Irish, Old English, Norman and Middle English literature and may include such works as *The Mabinogion,* the *Lais* of Marie de France, *Beowulf, Sir Gawain and the Green Knight*, and selections from Chaucer.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) or [(a GPA of 2.6) and (registration in a MDVL Plan)].

ENGL 311/6.0 Middle English Literature
A study of the poetry, drama, and prose of late medieval Britain. Texts are read in Middle English; language training is provided. Readings may include the dramatic cycles, Arthurian romance, Chaucer and his successors, women's writing, spiritual writing, historiography, and the culture of political and religious dissent.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) or [(a GPA of 2.6) and (registration in a MDVL Plan)].

ENGL 312/6.0 Literatures and Cultures of the Medieval World
This course introduces students to major pieces of medieval literature, their cultural contexts, and associated critical paradigms. Situating texts from England in an international context illuminates the dynamic literary exchange among England, Europe, and the Islamicate cultures of the Mediterranean.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE Registration in an ENGL Major or Medial Plan and ENGL 200/6.0 and ENGL 290/3.0.

ENGL 315/6.0 Romance: Medieval to Early Modern
This course surveys early romance, and particularly chivalric romance, from its first flowering during the twelfth century to the allegorical romance of the early modern period. Writers and works to be read may include Chrétien de Troyes, Marie de France, *Sir Gawain and the Green Knight*, Sir Thomas Malory, Sir Philip Sidney, and Edmund Spenser.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) or [(a GPA of 2.6) and (registration in a MDVL Plan)].

ENGL 321/6.0 Renaissance Poetry and Prose
A study of Renaissance poetry and prose but excluding drama, with emphasis on the works of Sidney, Spenser, Shakespeare, Donne, and Milton. Such writers as More, Marlowe, Nashe, Jonson, and Bacon may be included.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 326/6.0 Shakespeare and Renaissance Drama
The development of English drama from 1580 to 1642 with emphasis on Shakespeare, but including plays by such writers as Lyly, Greene, Marlowe, Dekker, Jonson, Marston, Beaumont and Fletcher, Webster, and Massinger.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 330/6.0 Restoration and 18th-Century Literature
A study of poetry, drama, and prose of the major writers of the period 1660-1800. Readings will be drawn from the works of writers such as Dryden, Pope, Swift, Johnson, Fielding, and Richardson.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 335/6.0 English Drama to 1700
A study of English drama from the medieval to the Restoration period. Emphasis falls on tracing the development of dramatic forms, traditions, and performance practices in relation to socio-cultural history.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 336/6.0 Early Modern Prose Fiction
A study of the origins of the English novel from early modern prose romances and satires to the gothic novel. Emphasis falls on tracing the development of narrative forms and their relation to socio-cultural history.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 340/6.0 Romantic Literature
An intensive study of the Romantics with emphasis on the works of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 347/6.0 American Literature and the Long 19th Century
American literature after the Revolution was arguably the first postcolonial literature in English. Through the study of literature in many genres, this course will explore relationships between innovation and tradition, and between the nation and its others, over the course of the long nineteenth century (roughly 1780 to 1920).
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 349/6.0 19th-Century Transatlantic Literature
A study of nineteenth-century literature from both sides of the Atlantic. This course will explore cultural transactions between Europe and the Americas from the late eighteenth to the early twentieth century, with special attention to the transatlantic dimension of literary movements such as Romanticism, Realism, and Modernism.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 351/6.0 Victorian Literature
An exploration of the relationship between Victorian literature and culture. This course will examine novels, poems, and essays written between 1830 and 1900 with attention to their particular literary, historical, and social contexts.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 352/6.0 Romance and Gothic
A course emphasizing romance and gothic traditions, beginning with the scholarly revival of romance in the mid-eighteenth century and culminating with modern gothic of the late-nineteenth century.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 356/6.0 British Fiction of the 19th Century
A study of British nineteenth-century fiction featuring selected writers from Jane Austen to Thomas Hardy.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 357/6.0 19th-Century British Literature and Visual Culture
A study of the relationship between literary texts and the burgeoning visual culture of the period. Representative visual forms might include book illustration and design, painting, photography, and commercial advertisement.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 360/6.0 Modern Literature
A study of poetry, prose, and drama from the late nineteenth century to the mid-twentieth century.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 365/6.0 Modern and Contemporary Poetry
A study of poetry from the twentieth and twenty-first centuries.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 369/6.0 Modern and Contemporary Prose Fiction
A study of prose fiction from the twentieth and twenty-first centuries.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 370/6.0 Contemporary Literature
A study of poetry, prose, and drama from the mid-twentieth century to the present.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 375/6.0 American Literature
Studies in modern and/or contemporary American fiction, poetry, and drama.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).
EXCLUSIONS ENGL 470/6.0.

ENGL 380/6.0 Literature and Culture in Canada
Studies in Canadian fiction, poetry, and literary criticism in relation to recurring concerns within Canadian cultural history.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 382/6.0 Postcolonial Literatures in Context
Studies in literature from a specific nation or region of the postcolonial world (such as South Africa, West Africa, Australia, the Caribbean, South Asia). Content will vary, but the aim will be to explore the cultural and historical contexts that inform literary production in the particular nation or region under study.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 387/6.0 Literature and Modern Media
A study of the creative interactions between print literature and modern audio and visual media such as mass circulation newspaper, radio, film, television, and digital devices.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 389/6.0 Context North America
A study of modern and/or contemporary North American literatures (which may include some works in translation). Content will vary, but the aim will be to discern how cultural similarities and differences are reflected in individual works by writers from (e.g.) Canada, the United States, and the Caribbean.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 411/3.0 Topics in Medieval Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 412/3.0 Topics in Medieval Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 420/6.0 Studies in Renaissance Literature
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 421/3.0 Topics in Renaissance Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 422/3.0 Topics in Renaissance Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 431/3.0 Topics in Restoration and 18th-Century Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 432/3.0 Topics in Restoration and 18th-Century Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 436/3.0 Group I: Special Topics I
Studies in literary topics focused on the period before 1800 that do not fit within the established Group I rubrics (Medieval, Renaissance, Restoration/18th Century). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 437/3.0 Group I: Special Topics II
Studies in literary topics focused on the period before 1800 that do not fit within the established Group I rubrics (Medieval, Renaissance, Restoration/18th Century). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 440/6.0 Studies in Romanticism
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 441/3.0 Topics in Romanticism I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 442/3.0 Topics in Romanticism II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 446/3.0 Topics in Literature of the Americas I
Studies of 19th-century literature produced in the Americas (Canada, United States, and elsewhere in the western hemisphere). Geographical focus will vary from year to year. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 447/3.0 Topics in Literature of the Americas II
Studies of 19th-century literature produced in the Americas (Canada, United States, and elsewhere in the western hemisphere). Geographical focus will vary from year to year. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 450/6.0 Studies in Victorian Literature
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 451/3.0 Topics in Victorian Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 452/3.0 Topics in Victorian Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 456/3.0 Group II: Special Topics I
Studies in literary topics focused on "the long nineteenth century" that do not fit within the established Group II rubrics (Romantic Literature, Victorian Literature, Literature of the Americas). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 457/3.0 Group II: Special Topics II
Studies in literary topics focused on "the long nineteenth century" that do not fit within the established Group II rubrics (Romantic Literature, Victorian Literature, Literature of the Americas). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 461/3.0 Topics in Modern/Contemporary British Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 462/3.0 Topics in Modern/Contemporary British Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 464/6.0 Literary Modernism
A study of the theory and practice of modernist writers in Britain and North America. Texts will include theoretical manifestoes as well as creative writing. Some attention will be given to the modernist movement in other arts.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 465/6.0 Studies in Modern/Contemporary Canadian Literature
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 466/3.0 Topics in Modern/Contemporary Canadian Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 467/3.0 Topics in Modern/Contemporary Canadian Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (Registration in an ENGL Major or Medial Plan and ENGL 200/6.0 and ENGL 290/3.0) or permission of the department.

ENGL 470/6.0 Studies in Modern/Contemporary American Literature
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).
EXCLUSIONS ENGL 375/6.0

ENGL 471/3.0 Topics in Modern/Contemporary American Literature I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 472/3.0 Topics in Modern/Contemporary American Literature II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 476/3.0 Topics in Postcolonial Literatures I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 477/3.0 Topics in Postcolonial Literatures II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 480/6.0 Studies in Indigenous Literatures
For detailed information, consult the Department.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 481/3.0 Topics in Indigenous Literatures I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 482/3.0 Topics in Indigenous Literatures II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 486/3.0 Group III: Special Topics I
Studies focused on Modern and Contemporary literature that do not fit within the established Group III rubrics (British, Canadian, American, Postcolonial, Indigenous). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 487/3.0 Group III: Special Topics II
Studies focused on Modern and Contemporary literature that do not fit within the established Group III rubrics (British, Canadian, American, Postcolonial, Indigenous). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 488/3.0 Group III: Special Topics III
Studies focused on Modern and Contemporary literature that do not fit within the established Group III rubrics (British, Canadian, American, Postcolonial, Indigenous). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 489/3.0 Group III: Special Topics IV
Studies focused on Modern and Contemporary literature that do not fit within the established Group III rubrics (British, Canadian, American, Postcolonial, Indigenous). For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 491/3.0 Topics in Literary Interpretation I
Studies in literary topics that cross over the historical boundaries between Groups I, II and III. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 492/3.0 Topics in Literary Interpretation II
Studies in literary topics that cross over the historical boundaries between Groups I, II, and III. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 493/3.0 Topics in Literary Interpretation III
Studies in literary topics that cross over the historical boundaries between Groups I, II, and III. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 494/3.0 Topics in Literary Interpretation IV
Studies in literary topics that cross over the historical boundaries between Groups I, II, and III. For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0)

ENGL 495/6.0 Studies in Literary Criticism and Theory
Studies in representative critical theories from antiquity onwards, with special emphasis on modern criticism both in its theoretical and practical aspects.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 496/3.0 Topics in Literary Criticism and Theory I
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 497/3.0 Topics in Literary Criticism and Theory II
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 498/3.0 Topics in Literary Criticism and Theory III
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 499/3.0 Topics in Literary Criticism and Theory IV
For detailed information, consult the Department.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (ENGL 200/6.0 and ENGL 290/3.0) and (registration in an ENGL Major or Medial Plan).

ENGL 590/3.0 Senior Essay Option

A critical essay of at least 7500 words on a topic of the student's choice, written under the supervision of a faculty member. For additional information, students should consult the Department, preferably in the spring of their third year. Open only to students in the final year of a Major or Medial Plan in English.

LEARNING HOURS 120 (12I;108P)

PREREQUISITE Permission of the Department and (a minimum GPA of 3.50 in 24.0 previous English units). The 3.50 GPA requirement may be waived in exceptional cases by request of the essay's faculty supervisor.

ENIN 140/3.0 Design Thinking
This course teaches design thinking techniques and their application to real-life case studies. Design Thinking takes a cross-disciplinary approach wherein students from various academic and professional backgrounds engage in co-creation, peer review, online discussions, brainstorming, and prototyping activities.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)
EQUIVALENCY *FILM 140/3.0*.

ENIN 200/3.0 Foundations of Entrepreneurship
This course delivers an introduction to the economic and organizational dimensions of innovation and entrepreneurship. Using case studies of real companies and initiatives, we'll evaluate how disruptive and incremental innovations bring about changes in the market by prompting new products and services, business models, technologies, and paradigms.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (84O;36P)
PREREQUISITE Level 2 or above.
EXCLUSION May not be taken with or after ASCX 200/3.0

ENIN 204/3.0 Publicity and Media Relations
This course develops an understanding of the basic principles, processes and applications of public relations and marketing communications in the arts and entertainment sectors, and across the creative industries. From arts marketing, fundraising, and publicity, to talent and music management, and event planning, the course covers how public relations can be applied to many fields.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 2 or above.

ENIN 205/3.0 Innovation for STEAM
The course welcomes students from any background to collaborate and explore the overlapping practices, paradigms, and points of divergence between the arts and STEM disciplines (Science, Technology, Engineering, and Mathematics). A "STEAM" approach combines what may at first appear to be opposite methods and processes, by emphasizing the importance of creativity, collaboration, and critical analysis to art and science.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (84O;36P)
PREREQUISITE Level 2 or above.

ENIN 207/3.0 Envisioning Disruptive Technologies
This course illustrates the concept of disruptive technology – where the pace of technological progress easily exceeds the rate of performance improvement that customers in a market demand. The cases we will cover highlight the implications of such innovation on the research, design, promotional, and business strategies involved.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 2 or above.

ENIN 240/3.0 Explorations in Creativity
Students will examine four aspects of creativity – the creative person, process, product, and press – to increase the degree to which they recognize and nurture their own creative potential. Supported by interdisciplinary research and theory, students will assess the increasing importance and global context of creativity skills in the 21st century.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (84O;36P)

ENIN 301/3.0 Creative Entrepreneurship
This course offers a primer on personal and organizational creativity, and is designed to support learners to develop entrepreneurial mindsets. Learners will study emerging theories of creative thinking, and develop a deep understanding of, and engagement with, discourses and methods of innovation in the creative industries.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (72O;48P)

PREREQUISITE Level 2 or above.

ENIN 340/3.0 Topics in Innovation and Entrepreneurship

Examines current innovation and entrepreneurship trends, practices, styles, theories, texts, and discourses. Through online research, assigned readings, and creative assignment, students will engage in creative exploration of innovative products, services, business models, and learn about innovative individuals.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 120 (84O;36P)

PREREQUISITE Level 2 or above.

ENIN 400/3.0 Innovation Design Sprint

This course is designed as an intense, short-burst, experiential learning expedition. It is an opportunity for students to practice developing innovative, effective solutions to real-world business, social, and creative problems.

NOTE Only offered online. Consult Arts and Science Online.

NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.

LEARNING HOURS 108 (48O;60P)

PREREQUISITE Level 3 or above and ENIN 200/3.0 and (ENIN 301/3.0 or CHEE 302/3.0)

EXCLUSIONS ENIN 401/3.0

ENIN 401/3.0 Venture Design Execution

In today's fast-paced world, speed and agility are critical to generating business value. This capstone course offers a unique experiential opportunity to leverage & develop contacts in International innovation node(s), as well as opportunities to practice developing innovative & effective solutions to real-world problems.

NOTE Offered only at the Bader International Studies Centre, Herstmonceux.

LEARNING HOURS 120 (12L;24S;16G;100C;48P)

COREQUISITE ENIN 200/3.0 and (ENIN 301/3.0 or CHEE 302/3.0).

EXLUSIONS ENIN 400/3.0

ENSC 103/3.0 Environment and Sustainability
An interdisciplinary approach to complex environmental issues, and diverse perspectives on environmental management and sustainability. The course considers the social and scientific aspects of environmental problems and the production of environmental knowledge alongside global linkages, human health implications and barriers to sustainability.
LEARNING HOURS 120 (24L;12T;24O;60P)
EQUIVALENCY *ENSC 203/3.0*.

ENSC 200/3.0 Environmental History
A history of the relations between humans and nature through time, with special emphasis on how science has influenced how we perceive our place in nature, and how we define and understand environmental issues.
EXCLUSION(S) HIST 257/3.0.

ENSC 201/3.0 Environmental Toxicology and Chemical Risks
Introduction to global issues and problems in environmental toxicology. Possible topics include waste disposal, pesticides, chemical warfare, pulp and paper mills and genetically modified foods. This course will be of interest to students with either a science or a humanities background.
LEARNING HOURS 120 (24L;12T;84P)

ENSC 290/3.0 Introduction to Ecological Economics
This course includes a combination of lectures, assignments and case studies that are designed to introduce students to the ecological critique of the standard neo-classical economic analysis of environmental degradation and depletion. Students will also be asked to consider the more holistic approach to calculating the costs and benefits of economic activity proposed by ecological economists.
NOTE This course may not be used towards the requirements of an ECON Plan.
LEARNING HOURS 120 (36L;84P)

ENSC 301/3.0 Environmental Assessment
The course explores components of environmental assessment including public consultation, scoping, alternatives, protocols, significance, trade-offs, mitigation and monitoring. Biophysical, cumulative, social, strategic and sustainability assessment through case studies highlight strengths and weaknesses of the environmental assessment process.
LEARNING HOURS 114 (12L;24G;78P)
PREREQUISITE Level 3 or above.

ENSC 305/3.0 Social Environments
This course critically examines the complex interaction of material and social processes that define our relationship with the environment. Topics focus on how environmental issues emerge as concerns, are defined by different stakeholders, and their solutions framed through political, economic, cultural, and techno-scientific discourses.
LEARNING HOURS 96 (24L;12G;60P)
PREREQUISITE Level 3 or above, or permission of the School.

ENSC 307/3.0 Marine Environmental Issues
Marine issues such as fisheries and aquaculture, climate change, oil and gas development, shipping, coastal development and marine protected areas will be explored in the context of factors that create environmental problems and the steps that are being taken to solve them. Assignments are modeled on real-world examples to develop skills for creating positive change to promote sustainable practices. This course will be highly complementary to other courses in Oceanography or Limnology (GEOL 200/3.0, BIOL 335/3.0, GPHY 303/3.0).
NOTE Field trip: estimated cost $35.
PREREQUISITE Level 3 or above, or permission of the School.

ENSC 310/3.0 Environmental Policy
This course introduces political science and public policy within the context of environmental politics, policy, and administration. The purposes of policy, the makers of policy, and the tools at their disposal will be analyzed within the institutional context of environmental policy-making.
LEARNING HOURS 132 (24L;12T;36O;60P)
PREREQUISITE Level 3 or above, or permission of the School.

ENSC 311/3.0 Applied Environmental Policy
This course investigates the ecological, social and economic dimensions of environmental policy using a comparative approach. This course will normally be offered at an international locations (e.g. BISC) thereby allowing and comparisons/contrasts between Canadian and other context-specific approaches on the role of law, governance, politics, administration and economics towards promotion of 'enlightened' environmental policy.
NOTE Only offered in the Queen's-Blyth International Studies program or at the Bader International Studies Centre, Herstmonceux.
LEARNING HOURS 120 (24L;72G;24P)
PREREQUISITE Level 3 or above, or permission of the School.

ENSC 315/3.0 Global Food Security, Agriculture, and Environment
National and global review of current and projected adequacy of food supplies, as affected by soil and water resources, climate and climate change, and human population growth. Reviews different scenarios for meeting food needs over the next 50 years, including technological, social, economic, and political factors.
LEARNING HOURS 124 (36L;4Pc;6O;18Oc;60P)
PREREQUISITE Level 3 or above.

ENSC 320/3.0 Wildlife Issues in a Changing World
A lecture/seminar course focusing on the notion of wildlife; laws governing wildlife protection and use; the effects of overexploitation, habitat destruction, and introduced species, and management plans and strategies.
PREREQUISITE Level 3 or above.

ENSC 321/3.0 Environmental Justice in Global Context
Examines the socially uneven effects across race, class, gender and nation of environmental problems such as toxic waste disposal, air pollution, climate change, deforestation and environmental disasters and the responses to them from local to global movements, protests and politics.
LEARNING HOURS 150 (18L;18S;6O;108P)
PREREQUISITE Level 3 or above.

ENSC 390/3.0 Sustainability
The concept of sustainability provides a focus for discussing global and regional environmental issues in the broadest possible perspective. This course will examine the meaning of sustainability and ways in which it is assessed at various levels including individual lifestyles, ecological, agricultural and industrial systems, urban areas, regions within countries, nations, and the world as a whole. Case studies will be used to illustrate the general principles.
PREREQUISITE Level 3 or above.

ENSC 391/3.0 Practical Applications in Sustainability
Application of approaches and practices of sustainability will be developed with an emphasis on individual or group projects. This course will involve sustainability efforts at a local, regional or national scale.
NOTE Only offered in the Queen's-Blyth International Studies program or at the Bader International Studies Centre, Herstmonceux.
LEARNING HOURS 120 (24L;72G;24P)
PREREQUISITE Level 2 or above.

ENSC 407/3.0 Global Water Issues
Increasing demands on water resources and widespread pollution of surface and groundwater has led many experts to predict a looming water crisis. This course will develop a global perspective on issues that include water distribution, management, pollution, conservation, conflict and policy. This course will be of interest to students in science, applied science or the humanities.
NOTE Field trip: estimated cost $50.
PREREQUISITE Level 3 or above.

ENSC 420/3.0 Gender and Environments
This course considers feminist approaches to environmental issues in western and non-western contexts, with attention to both theories and activism.
NOTE This course is recommended for students in Environmental Studies, Gender Studies, Development Studies or Health Studies.
PREREQUISITE Level 3 or above.

ENSC 425/3.0 Ecotoxicology
An exploration of the interactions among chemical exposure, toxicity to individual organisms, and effects on ecosystem structure and function. Mechanisms of toxicity will be linked to effects at different levels of organization up to the level of the ecosystem, using case studies to explore the complexities of exposure and response.
NOTE Field trip: estimated cost $20.
NOTE Course readings, assignments, exercises and lecture notes are posted on the course Moodle site.
LEARNING HOURS 126 (24L;12T;6Oc;84P)
RECOMMENDATION ENSC 201/3.0.
PREREQUISITE Level 4 standing and (BIOL 102/3.0 and 103/3.0) and (CHEM 112/6.0).

ENSC 430/6.0 Honours Projects in Environmental Sustainability
Interdisciplinary study of the scientific, socio-political, and economic aspects of selected local, national, or global issues related to environmental sustainability. Teamwork is emphasized.
NOTE One full-day weekend field trip: estimated cost $30.
PREREQUISITE Level 4 and registration in an ENSC Major, ENVS Medial, EBIO, ECHM, EGEO, EGPY, ELSC or ETOX Plan or permission of the School.

ENSC 471/3.0 Environmental Analysis Methods
Two weeks of intensive study in Environmental Analysis. Fundamentals of sample collection and preparation, including statistics and extraction methods, plus instrumental techniques including chromatography, atomic spectroscopy, spectrophotometry, and automated analysis techniques. Laboratory experiments in each of these areas. Enrolment limited. Offered in Spring Term only.
NOTE Field trip: estimated cost $15.
PREREQUISITE CHEM 213/3.0 or permission of the School.
EXCLUSION(S) CHEM 321/3.0

ENSC 480/3.0 Special Topics in Environmental Science
This course will provide intensive coverage of a topic that is current and/or of special interest in Environmental Science. The course will be multidisciplinary, but with a science focus. Offered periodically by visiting professors or members of faculty. The topic for each year will be announced in advance of course selection and will be made available on the ENSC web page. Students are advised to consult with their academic counsellor and/or the course instructor prior to registration.
PREREQUISITE Level 3 and registration in an ENSC Major, ENVS Medial, EBIO, ECHM, EGEO, EGPY, ELSC or ETOX Plan or permission of the School.

ENSC 482/3.0 Special Topics in Environmental Studies
This course will provide intensive coverage of a topic that is current and/or of special interest in Environmental Studies. The course will cover mainly social science-based material, but will be multidisciplinary. Offered periodically by visiting professors or members of faculty. The topic for each year will be announced in advance of course selection and will be made available on the ENSC web page. Students are advised to consult with their academic counsellor and/or the course instructor prior to registration.
PREREQUISITE Level 3 and registration in an ENSC Major, ENVS Medial, EBIO, ECHM, EGEO, EGPY, ELSC or ETOX Plan or permission of the School.

ENSC 483/3.0 Special Topics in Environmental Studies II
This course will provide intensive coverage of a topic that is current and/or of special interest in Environmental Studies. The course will cover mainly social science-based material, but will be multidisciplinary. Offered periodically by visiting professors or members of faculty. Topic for each year will be announced in advance of course selection and will be made available on the ENSC webpage. Students are advised to consult with their academic counsellor and/or the course instructor prior to registration.
PREREQUISITE Level 3 and registration in ENSC Major, ENVS Medial, EBIO, ECHM, EGEO, EGPY, ELSC, or ETOX plan, or permission of the School.

ENSC 501/6.0 Independent Environmental Study

Independent study of an environmental topic by individuals or inter-disciplinary groups.

NOTE This course is intended for a self-motivated student with an established record of undergraduate performance, i.e. cumulative GPA of approximately 3.0. It is the responsibility of the student to secure a supervisor prior to registering in the course.

LEARNING HOURS 228 (48I;180P)

PREREQUISITE Open to students in the final year of an honours program in any discipline, and with permission of the instructor of the course and of the Department of the student's Plan.

ENSC 502/12.0 Research Project in Sustainability

This is an interdisciplinary research project related to environmental sustainability, with supervision and training in appropriate research methods by faculty members of the School of Environmental Studies. The course includes supervised research including a research proposal, a seminar, a poster presentation and a final thesis and oral defense.

NOTE This course is intended for a self-motivated student with an established record of undergraduate performance, i. e. cumulative GPA of approximately 3.0. It is the responsibility of the student to secure a supervisor prior to registering in the course.

LEARNING HOURS 480 (24I;456P)

PREREQUISITE Open to students in the final year of an Honours Program in any discipline, and with permission of the instructor of the course and of the department of the student’s Plan.

EPID 301/3.0 Principles of Epidemiology

Basic methods involved in researching the distribution and determinants of health/disease in populations. Core principles of epidemiology are examined, as are the various epidemiological approaches to study design. The latter include descriptive (cross-sectional and ecological), observational (case-control and cohort), and experimental (randomized controlled trials) approaches.

LEARNING HOURS 117(13.5L;13.5T;6G;12O;72P)

PREREQUISITE BIOL 243/3.0 or CHEE 209/3.0 or COMM 162/3.0 or ECON 250/3.0 or GPHY 247/3.0 or KNPE 251/3.0 or NURS 323/3.0 or POLS 385/3.0 or PSYC 202/3.0 or SOCY 211/3.0 or STAM 200/3.0 or STAT 263/3.0 or STAT 267/3.0 or STAT 269/3.0 or STAT 367/3.0 or *PHED 251/3.0*.

EXCLUSION(S) BMED 270/3.0; HLTH 323/3.0.

EPID 401/3.0 Biostatistical Data Analysis for Life Science Students

An applied statistics course covering practical topics in tests and confidence intervals for single and multiple samples, ANOVA, linear regression, correlations, methods for categorical data, and nonparametric methods. SPSS package is used in the lab. The course emphasizes analyzing data arising in life sciences using practical statistical methods.

PREREQUISITE COMM 162/3.0; ECON 250/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0 and (Level 4 and registration in a LISC Major or Specialization Plan) and (a GPA of 2.5).

EPID 499/12.0 Research Project in Epidemiology

An examination of an epidemiological research question chosen by the student with guidance from the supervisor. Project will involve review of the literature, development of a proposal, data collection and/or processing, data analysis, a written report and oral presentation. Students will be required to attend and report on seminars of their choosing from a number of venues across campus. Limited enrolment.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in the LISC Specialization Plan and a GPA of 2.50 and (BMED 270/3.0 or EPID 301/3.0 or HLTH 323/3.0).

COREQUISITE EPID 401/3.0.

EXCLUSION(S) ANAT 499/12.0; CANC 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

FILM 104/3.0 Film Form and Modern Culture to 1970
Introduction to tools and methods of visual and aural analysis and to historical and social methods, with examples primarily from the history of cinema and other moving-image media to 1970.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.

FILM 106/3.0 Film Form and Modern Culture from 1970
Introduction to tools and methods of visual and aural analysis and to historical and social methods, with examples primarily from cinema and other moving-image media dating from 1970 to the present.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (36L;24G;12O;48Oc)
EXCLUSIONS BISC 100/3.0

FILM 110/6.0 Film, Media and Screen Cultures
Introduction to analysis of film, television, new media and other related forms of contemporary culture. Includes classical and contemporary Hollywood cinema, Canadian film and television, alternatives in international cinema, as well as recent developments on the internet, in gaming, and in social media.
LEARNING HOURS 216 (24L;24Lb;36T;36Pc;96P)

FILM 204/3.0 Introduction to Creative Industries
A broad introduction and overview of different creative sectors with a focus on the current state of industry and future projections, presented through a specially curated series of in-depth discussions with key professionals.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 206/3.0 Research, Writing, and Presentation Methods
A series of interactive presentations and lectures instructing students in research methods, argumentative writing, and the design of effective audio-visual presentations.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).
EXCLUSIONS FILM 2017/3.0

FILM 207/3.0 Writing Foundations for Film and Media
This course cultivates effective reading, writing and presentation practices with emphasis on writing strategies for students with English as an additional language, providing students with the necessary knowledge to navigate film and media studies in Canadian university.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).
EXCLUSION FILM 206/3.0

FILM 210/3.0 The Horror Film
This course examines the emergence and continuing popularity of the horror film from a global perspective. It explores the history and transformations of the genre and the ways in which the horror film has been mobilized in popular media to address larger cultural, political, and sociological issues.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Level 2 or above.

FILM 214/3.0 Mobile Communications
This course involves both media studies and production. Students will use their own mobile devices to complete a series of creative projects, while learning theoretical and practical aspects of mobile media communications.
LEARNING HOURS 108 (36L;36O;36P)

FILM 215/3.0 Science Fiction Cinema
This course examines the emergence and continuing popularity of the science fiction film from a global perspective. It explores the history and transformations of the genre and the ways in which science fiction film has been mobilized in popular media to address larger cultural, political, and sociological issues.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Level 2 or above.

FILM 216/3.0 Historical Inquiry
Introduction to historical research and analysis of narrative and other films. Examines works, from a range of periods and settings, and the conditions that shaped their production, circulation and reception.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 217/3.0 Film and Media History and Theory Pre-1960
This course offers an overview of the early history and theories associated with film and media, including studies of German Expressionism, Film Noir, Italian Neorealism, the Western, Experimental and Surrealist cinemas. The course also examines the rise of related media, such as radio and television.
NOTE Priority will be given to FILM Major and Medial students.
LEARNING HOURS 108(36L;24Lb: 48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 218/3.0 Film and Media History and Theory Post-1960
This course offers an overview of film and media histories and theories after 1960, including key cinematic movements such as la nouvelle vague, Yugoslav Black Cinema, New German Cinema, Third cinema, Bollywood, Fifth Generation cinema. The course also examines related media, such as gaming, television, video art, and digital media.
NOTE Priority will be given to FILM Major and Medial students.
LEARNING HOURS 108(36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 220/3.0 Disney Pixar DreamWorks
This course offers a historical, sociological, and theoretical framing and analysis of children's animated feature films produced by major American animation studios. The course will examine these beloved childhood classics as texts that are rich with ideological and political concerns.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Level 2 or above.

FILM 225/3.0 The Comedy Film
This course examines the emergence and continuing popularity of the comedy film from a global perspective. It explores the history and transformations of the genre and the ways in which comedy has been mobilized as a popular media to address larger cultural, political, and sociological issues.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Level 2 or above.

FILM 226/3.0 Critical Inquiry
Textual analysis of narrative and other films, including examination of formal, aesthetic, and narrative techniques and conventions, and their production of meaning in social and political contexts.
NOTE Priority will be given to FILM, MAPP, STSC, and COCA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 236/3.0 Media and Cultural Studies
Introduction to cultural and social theory of film and other media as it relates to the tension between citizenship and consumerism. Examines roles, functions, and impact of mass media technologies, institutions, and practices in both scholarly and practical forms.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 120 (36L;24Lb;24O;36P)

FILM 240/3.0 Media and Popular Culture
This course on the dynamics between media and popular culture takes an interrogative approach. It is organized around a series of questions that will introduce students to a range of key concepts in media and mass communication studies, with the goal of providing a theoretical structure to support critical analysis of contemporary cultural trends.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108(36L;36PS;36O)

FILM 250/3.0 Media Production Fundamentals
A foundation in media production techniques relevant to graphic, sound, and moving-image formats. Topics include project design, technical workflow, and the aesthetic and social aspects of screen-based media. Students undertake several group projects in the first term and a major video production in the second term.
NOTE Production supplies $250. Priority will be given to students with the highest overall GPA on FILM courses, including those at the 100-level.
NOTE Students may enroll in no more than one production course per academic year: *FILM 250/6.0;* FILM 250/3.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0; *FILM 355/6.0;* FILM 356/3.0; *FILM 365/6.0*; *FILM 375/6.0*; *FILM 385/6.0*; FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 216 (48L;24Lb;60G;24O;60P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization.

FILM 257/6.0 Film and Media Concept Development
This course will explore the methods of film/media-related work that precedes pre-production, including the elaboration of primary concepts and ideas, research, and script development. The students will learn how to engage in research which is relevant, and how to develop primary concepts into workable scripts or project designs.
NOTE Production supplies $250. Priority will be given to students with the highest overall GPA on FILM courses, including those at the 100-level.
NOTE The course is the prerequisite for FILM 312: Screenwriting
LEARNING HOURS 108(36L;36O;36P)
PREREQUISITE Registration in a FILM Major or Medial Plan, MAPP or COCA Specialization.

FILM 260/3.0 Digital Media Theory and Practice
Survey of digital media theories and online mass communication practices, with emphasis on social and mobile technologies. Course considers the impact of digitalization on the creative and culture industries.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (72O;48P)

FILM 300/3.0 Hollywood: The Dream Factory
This course examines Classical Hollywood Cinema from the early 1940s until its demise at the end of the 1950s.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization) or (FILM 236/3.0 or FILM 240/3.0 or FILM 260/3.0).

FILM 301/3.0 Studies in Cinemas of the Americas
This course studies the cinemas of the Americas from critical and historical perspectives. It traces the aesthetic, technological and political changes in various film practices, and places those changes in the context of social and cultural histories.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 302/3.0 Genre
Intermediate examination of generic convention, iconography, relations to modes of production and to audience, and historical dimensions, using as examples films or video productions in one or more genre.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 303/3.0 World Cinemas
This course offers an overview of recent filmmaking practices from various continents. Transnational cinemas explore how intimate, personal styles of filmmaking converge with theories of globalization, hybridity and remediation.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization) or (FILM 236/3.0 or FILM 240/3.0 or FILM 260/3.0) or (LLCU 209/3.0 or DEVS 240/3.0) or permission of the Department.

FILM 304/3.0 Creative Industries in the 21st Century
Students will study the creative industries in global context. Course includes theoretical readings, field trips, guest lectures, and creative assignments to understand contemporary creative economies.
NOTE Students may be required to participate in a field trip in certain years. Estimated cost for bus and event admission is $70 plus accommodation and food. See departmental webpage for more information.
LEARNING HOURS 108 (36L;24Oc;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 305/3.0 European Narrative
Intermediate critical and historical study, through a selection of narrative films from one or more European nations. Examines cinema industries and art within national and continental culture.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 306/3.0 Comparative Contemporary Film in Europe
Intermediate study of thematic and stylistic trends in recent European cinema, with reference to social and political changes.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 307/3.0 Classics of European Cinema
Intermediate study of some of the most significant films made in Europe from the early 20th century to today. Considers historical, technological, and aesthetic determinants and influence.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 308/3.0 Popular Cultures
Students will examine recent popular culture trends, practices, styles, theories, and artifacts. Through creative assignments, online discussion, online research and readings, students will engage in creative critique of the power of the popular to shape our identities, ideologies, and cultural arrangements.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24S;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0).

FILM 312/3.0 Screenwriting
Approaches to dramatic storytelling for the screen. Students analyze examples from existing works and, through practical exercises, prepare a short, original screenplay.
LEARNING HOURS 108 (36S;72P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 315/3.0 Communication Technologies and Creative Practice
Intermediate study in the evolution of digital visual communications theory and practice. Covers readings about social and technological developments in computer mediated communication, and involves creative investigation of interactive digital media through design projects.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 316/3.0 Video Games and Culture
This course introduces the interdisciplinary study of video games through the examination of their cultural, educational, and social functions in contemporary settings. Students will play and analyze videogames while reading current research and theory from a variety of sources in the science social sciences, humanities, and industry.
LEARNING HOURS 108 (36L;36O;36P)
NOTES Priority will be given to FILM, STSC/MAPP, COCA, MDIA students.
PREREQUISITE FILM 110/6.0 or FILM 236/3.0 or FILM 240/3.0 or FILM 260/3.0

FILM 317/3.0 Art as Technology
This course draws references from critical and media theory in order to explore the material and systemic dimension of artistic practices and the artwork, underscoring the role of the art worker as a relevant historical actor.
LEARNING HOURS 108 (36L;24Lb;48P)
NOTES Priority will be given to FILM, STSC/MAPP, COCA, MDIA students.
PREREQUISITE (Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12 units in FILM)or Permission of the Department.

FILM 318/3.0 Screen Curatorial Practices
This engages students with a broad sphere of curatorial activities within and beyond the film industry and contemporary visual arts. Students will explore the role of curatorial practices in media, science, and culture through class discussions, field trips to various exhibition sites and events, and the organization of a final exhibition project.
LEARNING HOURS 108 (36L;24Lb;48P)
NOTES Priority will be given to FILM, STSC/MAPP, and COCA students.
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12 units in FILM.

FILM 320/3.0 Media and the Arts
Intermediate study in relations between moving-image media and other visual or performing arts.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0).

FILM 322/3.0 Canadian Film and Television to 1980
Intermediate study in history and critical analysis, from early cinema to the tax-shelter boom and the institution of Telefilm Canada.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 324/3.0 Canadian Film and Media: Documentary/Experimental/Animation
This course examines three central forms of film-and video-making in Canada: documentary works experimental film and media and animation. \beginning with the work of the NFB/ONF, the course traces aspects of the development of these areas from the late 1930s to the 21st Century.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM.

FILM 325/3.0 Cinemas in Canada: Anglo-Canadian/Québécois(e)/Indigenous
This course examines fiction filmmaking from Anglo-Canadian, Quebécois(e), and Indigenous filmmakers, examining a variety of works produced from the 1950s onwards. We pay special attention to questions of experimental narrative form (such as documentary/fiction hybrids), national and Indigenous identities, and the role of various funding programs
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM.

FILM 330/3.0 Gender and Media
This course the figurative role that media plays in the cultural and social construction of gender. Students will assess mass and digital media using feminist and queer theories of representation as well as scholarship in new media studies.
LEARNING HOURS 108 (36L;24Lb;48P)
NOTES Priority will be given to FILM, STSC/MAPP, and COCA students.
PREREQUISITE (Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM) or (Level 3 and registration in a GNDS Plan and GNDS 120/3.0, GNDS 125/3.0) or permission of the department..

FILM 331/3.0 Women and Film
Intermediate study in feminist approaches to the cinema and to films produced by women. Critical examination of critical and theoretical literature, and examples of narrative, documentary, and experimental cinemas.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (Level 3 and registration in a GNDS Plan and GNDS 120/3.0, GNDS 125/3.0).

FILM 332/3.0 Queer Cinemas
This course will examine the development of queer filmmaking practices in Hollywood and beyond. It will also introduce the field of queer cinema studies, attending to questions of identity, representation, authorship, and spectatorship. Students will cover a diverse array of topics, with a focus on historical, artistic, and industry contexts.
LEARNING HOURS 108(36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (Level 3 and registration in a GNDS Plan and GNDS 120/3.0, GNDS 125/3.0).

FILM 335/3.0 Culture and Technology
Research and studies in relations of media, technology, and culture. Critical examination of cultural and communication technologies and the employment of technology within selected examples from film, television, and digital media.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24O;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0).

FILM 336/3.0 Film and Politics
Intermediate examination of the historical and critical relation between film and politics or political ideologies. Examples will be drawn from both narrative and non-narrative traditions.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 337/3.0 Cinema and the City
An intermediate study of representations of the city in cinema and visual culture, the social histories from which these representations emerge, and the changing environments in which cinema is viewed.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (Level 3 and registration in a GPHY Plan and GPHY 101/3.0, GPHY 227/3.0, GPHY 229/3.0).

FILM 338/3.0 Contemporary Issues in Cultural Studies
An intermediate study of key concepts in cultural studies investigated through cultural practices and/or national contexts from the 1960s to the present.
NOTE Students will be required to attend a limited number of Kingston-based cultural productions over the course of the term.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 120 (36L;12G;12Oc;60P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0) or (Level 3 and registration in an ARTH, ARTV, DRAM, or MUSC Plan).

FILM 339/3.0 Media and Culture at the End of the 20th Century
This course will focus on the rapid technological changes of the 1990s and their effects on media, including cinema, advertising, music and television. Topics may include: teen markets and popular culture; the rise of specialty channel television; racial diversity and the family sitcom; changing music videos aesthetics; New Queer Cinema; etc.
LEARNING HOURS 108 (36L;36O;36P)
PREREQUISITE (Registration in a FILM Plan, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0)

FILM 340/3.0 Advertising and Consumer Culture
This course reviews advertising strategies across a range of different media to understand the construction and functions of consumer culture and citizenship in politics, economics, art, and everyday life. We shall critically examine theories and case studies primarily from North America.
NOTE Also offered online. Consult Arts and Science Online. Learning hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
NOTE Assignments include online and on-campus exams, online discussion forum participation requirement, short reflective essays, and some creative design work.
LEARNING HOURS 108 (36L;36O;36P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0) or (COMM 131/3.0 or COMM 231/3.0 or PSYC 342/3.0).

FILM 341/3.0 Studies in Mass Media
An introduction to key concepts in media studies, with specific historical, contemporary, and/or thematic case studies each year. Topics will range from critical race studies and the media; television and media studies; gaming; the culture industry; mass audiences; digital economies and streaming; to advertising and commodification.
LEARNING HOURS 108(36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0).

FILM 342/3.0 Studies in Alternative Media
An introduction to key concepts in media studies, with specific historical, contemporary, and/or thematic case studies each year. Topics will range from gender studies and LGBTQ2S studies and the media; expanded media; globalization; media and popular music; social media; media and the public sphere; or media activism.
LEARNING HOURS 108(36L;24Lb;48P)
PREREQUISITE (A grade of B- in FILM 110/6.0) or (a GPA of 2.60 in FILM 104/3.0 and FILM 106/3.0) or (a GPA of 2.60 in BISC 100/3.0 and FILM 104/3.0)

FILM 343/3.0 Speculative Media Studies: Fictions, Fans, and Franchises
A survey of speculative media, working around three organizing themes (fictions, fans, and franchises), this class will introduce key issues in speculative media studies. Students will explore various subcultural and popular SF or speculative genres, including science-fiction, fantasy, alternative history, and speculative futures.
LEARNING HOURS 108(36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM) or permission of the department.

FILM 345/3.0 Television: Structure and Function
Intermediate examination of television and the development of the medium as a distinctive cultural form, through a range of programs and programming formats, issues of audience, and television broadcasting in Canada.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.

FILM 346/3.0 Television and Seriality
This course examines various forms of television seriality, from historical and theoretical perspectives. The course shall examine its emergence as the dominant form of the soap opera, to contemporary web television platforms such as Netflix, Amazon Prime, and Crave
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM.

FILM 350/3.0 Moving Images Archives: The Politics of Preservation and Circulation
This course will introduce the history, procedures, and policies of audiovisual archives. Topics may include: the history of film archives (e.g. the National Film Board Archives); best practices in preservation and digitization; procedure and politics of digitization; and challenges in the preservation of born-digital art and video.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and 12.0 units in FILM.

FILM 351/3.0 Documentary Production
Advanced motion picture production course. Each student produces a short documentary using video and/or 16mm film. Emphasis will be placed on unconventional approaches and techniques.
NOTE Students may enroll in no more than one production course per academic year: FILM 250/6.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0; *FILM 355/6.0*; FILM 356/3.0; *FILM 365/6.0; FILM 375/6.0*; *FILM 385/6.0*; FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 120 (36L;24Lb;30G;30P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and FILM 250/6.0 and 6.0 units in FILM.
EXCLUSION(S) *FILM 355/6.*0.

FILM 352/3.0 Production: Issues of Form and Structure
Advanced practical course in film and video aesthetics. Starting with the screening and analysis of selected works, each student will script, produce and edit a short video or 16mm work that explores particular formal questions. Emphasis will be placed on unconventional approaches and techniques.
NOTE Students may enroll in no more than one production course per academic year: FILM 250/6.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0; *FILM 355/6.0;* FILM 356/3.0; *FILM 365/6.0*; *FILM 375/6.0; FILM 385/6.0*; FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 120 (36L;24Lb;60P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and FILM 250/6.0 and 6.0 units in FILM.

FILM 353/3.0 Narrative Production
An advanced course on the conception, planning, shooting, and editing of narrative film and television. Working in groups of four, students will produce short, professional quality videos (maximum length eight minutes) for a public screening.
NOTE Students may enroll in no more than one production course per academic year: FILM 250/6.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0; *FILM 355/6.0*; FILM 356/3.0; *FILM 365/6.0*; *FILM 375/6.0*; *FILM 385/6.0*; FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 120 (36L;24Lb;30G;30P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and FILM 250/6.0 and 6.0 units in FILM.
EXCLUSION(S) *FILM 365/6.0.*

FILM 356/3.0 Animation Production
A combined study of the history and theory of film animation with the production of animated films. Requirements will include both research essays as well as the conceptualization and production of an animated film.
NOTE This course and all other 300- level production courses are reserved for third and fourth year students who have completed the required prerequisites.
LEARNING HOURS 120 (36L;24Lb;60P)
PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and (*FILM 250/6.0*) or Film 250/3.0

FILM 360/3.0 The Documentary Tradition
Intermediate critical and historical study in non-fiction film and television, based on selected examples from Canada, including productions of the National Film Board and the CBC, and international documentary cinemas.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.
EXCLUSION(S) *FILM 355/6.0*

FILM 368/3.0 Animation Theory and Criticism
A course on the history, theory, and practice of animated films. Requirements include a series of screenings, writings, and a practice based critical project.
NOTES This course and all other 300- level production courses are reserved for third and fourth year students who have completed the required prerequisites.
LEARNING HOURS 108 (36L;12Oc;60P)
PREREQUISITE (Level 3 and Registration in a FILM Plan, STSC, MAPP or COCA Specialization) and (*FILM 250/6.0* or FILM 250/3.0)

FILM 369/3.0 Advanced Animation
This course covers a variety of advanced animation techniques and allows students to explore physical materials and digital tools. Students create a finished work to be exhibited publicly at the end of the semester.
NOTES This course and all 300- level production courses are reserved for third and fourth year student who have completed the required prerequisites.
LEARNING HOURS 120(36L;24Lb;30G;30P)
PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and FILM 356/3.0

FILM 370/3.0 The Experimental Tradition
Intermediate critical and historical study in the avant-garde of the international cinema, based on selected examples principally from Europe, the United States and Canada.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM.
EXCLUSION(S) FILM 375/6.0.

FILM 375/6.0 Experimental Theory and Practice
A course which combines study of the history and theory of experimental film with the production of experimental works. Requirements will include both research essays as well as the conceptualization and production of an experimental video or film.
NOTE Students may enroll in no more than one production course per academic year: FILM 250/6.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0*; FILM 355/6.0;* FILM 356/3.0; *FILM 365/6.0*; *FILM 375/6.0*; *FILM 385/6.0*; FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 240 (36L;36S;48Lb;48G;72P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and FILM 250/6.0 and 6.0 units in FILM.
EXCLUSION(S) FILM 370/3.0

FILM 381/6.0 Audience Reception
This course examines the changing role of audience reception in live performance and media-based work. Students will explore theories and engage methods that explore how meaning is made from the vast range of digital media and live events that constitute the contemporary experience of spectatorship.
LEARNING HOURS 120(36L;24Lb;30G;30P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (FILM 236/3.0; FILM 240/3.0; FILM 260/3.0)
EXCLUSION(S) *STSC 381/3.0*.

FILM 385/6.0 Animation Theory and Practice
A course which combines study of the history and theory of film animation with the production of animated films. Requirements will include both research essays as well as the conceptualization and production of an animated film.
NOTE Students may enroll in no more than one production course per academic year: FILM 250/6.0; FILM 351/3.0; FILM 352/3.0; FILM 353/3.0; *FILM 355/6.0*; FILM 356/3.0; *FILM 365/6.0*; *FILM 375/6.0*; *FILM 385/6.0;* FILM 410/3.0; FILM 451/3.0.
LEARNING HOURS 240 (36L;36S;48Lb;48G;72P)
PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and FILM 250/6.0 and 6.0 units in FILM.
EXCLUSION(S) FILM 368/3.0; FILM 356/3.0

FILM 387/6.0 Cinematography and Visual Aesthetics
Advanced practical course in cinematography and visual aesthetics. Through a series of lectures, practical exercises, and screenings; students will explore visual aesthetics and the techniques employed to author motion picture images with internet and consistency
LEARNING HOURS 120 (36L;24Lb;30G;30P)
PREREQUISITE (Registration in a FILM Major or Medial Plan, STSC/MAPP or COCA Specialization) and (*FILM 250/6.0* or FILM 250/3.0 and 9.0 units in FILM

FILM 388/3.0 Indigenous Film and Media
This course offers a journey into Indigenous and Inuit film, produced by Indigenous filmmakers from the Americas, Northern Europe, and Australia. Topics such as Indigenous methodologies and aesthetics, Indigenous feminism, decolonization, self-recognition, language revitalization, and cultural reappropriation will be explored.
NOTE Priority will be given to FILM, MAPP, STSC, COCA, and INDG students.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM) or (Level 3 and registration in an INDG Plan and DEVS 220/3.0 and DEVS 221/3.0).

FILM 389/3.0 The Music Video: Visual Art, Music, and Screen-Based Media
Music videos are an intersection of visual art, music,, and television which can speak to the politics, technology, and art of a given time and place. A survey of music videos and related pop cultural phenomena from the 1950s to the present will help students appreciate the broader cultural impact of the music video, beyond its promotional function.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC,MAPP or COCA Specialization and 12.0 units in FILM) or permission of the department.

FILM 390/3.0 Open Media Production
In this course, students create projects around research topics using a variety of media, which may include video, sound, graphics, performance, and interactive media. Students might produce podcasts, print media, games, etc. Pre-requisite for Advanced Open Media Production.
NOTE This course and all 300-level production courses are reserved for third and fourth year students who have completed the required prerequisites.
LEARNING HOURS 120(36L;24Lb;30G;30P)
PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and (FILM 250/6.0 or FILM 251/3.0) or permission of the department.

FILM 391/3.0 Advanced Open Media Production
This course allows students to explore independent research projects using a variety of media, with the aim of creating a portfolio-ready piece to present publicly at the end of the semester.
NOTE This course is reserved for third and fourth year students who have already completed the required prerequisites.
LEARNING HOURS 120(36L;24Lb;30G;30P)
PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and (FILM 356/3.0 or FILM 390/3.0 or FILM 392/3.0)

FILM 392/3.0 Video Production
This course covers production techniques, including planning, production, and postproduction topics. Students can explore a variety of genres and forms, and will undertake a series of short exercises aimed at building technical skills. Specific themes covered will depend on the instructor. Pre-requisite for Video Production II.
NOTE This course and all 300-level production courses are reserved for third and fourth year students who have completed the required prerequisites.
LEARNING HOURS 120(36L;24Lb;30G;30P)
PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and (FILM 250/6.0 OR FILM 250/3.0) or permission of the department.

FILM 393/3.0 Advanced Video Production

This course builds on material covered in Video Production and introduces advanced techniques for conceptualizing, planning, producing, and editing short film/video projects. Student projects will be exhibited/screened publicly at the end of the semester.

NOTE This course is reserved for third and fourth year students who have already completed the required prerequisites.

LEARNING HOURS 120(36L;24Lb;30G;30P)

PREREQUISITE (Level 3 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization) and FILM 392/3.0

FILM 394/3.0 Post-Production

The This course covers moving-image post-production techniques, including workflow planning, stages of editing, sound mixing, colour correction, special effects and media management.

LEARNING HOURS 120(36L;24Lb;30G;30P)

PREREQUISITE 120 (36L;24Lb;30G;30P)

FILM 395/3.0 Internship

Students can apply to undertake a practical internship in media production, criticism or curatorship. All internships must be approved in advance by application to the Undergraduate Coordinator. Approval will depend on the quality of the proposal and the academic record of the applicant. Students are required to write a report about their experience and are evaluated jointly by their employer and a faculty member from Film and Media. It is the responsibility of students, not the Department of Film and Media, to arrange internships.

NOTE Students will be given a grade of Pass/Fail for work done.

LEARNING HOURS 120 (120I)

PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 12.0 units in FILM and permission of the Department.

FILM 400/3.0 Special Topics in Film, Media, and Cultural Studies

An advanced course in developing expertise in research and critical writing concerning contemporary world cinema, media arts, and other cultural phenomena.

NOTE Students will be asked to view material and visit exhibitions outside of class time.

LEARNING HOURS 120 (36L;24Lb;12G;12Oc;36P)

PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 410/3.0 Video Production for Digital Media

Creative investigation of media, culture, and technology, focused through the medium of video from its invention to its current digital forms. Practical experiments will be guided by critical texts and case studies that contextualize video-based practices in a variety of fields.

NOTE This course is reserved for fourth year students who have already completed the required prerequisites.

LEARNING HOURS 120 (36L;24Lb;60P)

PREREQUISITE (level 4 and Registration in a FILM Major or Medial Plan, STSC,MAPP or COCA Specialization) and FILM 250/6.0 or FILM 250/3.0.)

FILM 415/3.0 Contemporary Theory: Special Topic

Advanced seminar on one or more approaches to cinema and culture, based on a selection of writings and related screenings.

LEARNING HOURS 108 (36L;24Lb;48P)

PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

EXCLUSIONS No more than 3.0 units from FILM 415/3.0; FILM 457/1.5; FILM 458/1.5

FILM 416/3.0 Material Media Studies: Things, Ecologies, Affects

This course examines media from a perspective of materiality. Counter to popular sentiments about the immateriality of the internet or the virtual as absent of physical bodies, this class looks to objects, environments, experiences, and sensations associated with media. The course will introduce material media studies concepts.

LEARNING HOURS 108 (36L;24Lb;48P)

PREREQUISITE Registration in a FILM Plan, STSC,MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 420/3.0 Advanced Approached to Media Studies: Special Topic
Advanced course in media theory, focusing on a special topic in the field each year. In particular, the course will examine contemporary political debates through the lens of media theory and studies
LEARNING HOURS 108(36l;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization) and 30.0 units in FILM or permission of the Department.

FILM 422/3.0 Canadian Cinema: Special Topic
Advanced seminar on specific area of research and study selected by the instructor. Subjects have included Québécois cinema, film and mass culture in Canada.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 425/3.0 Advanced Film Criticism
Research seminar that draws on students' previous work to enhance advanced writing and research in film criticism. Topics from theory, criticism, and history will be addressed to suit individual students' projects.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 430/3.0 Authorship: Special Topic
Advanced seminar on authorship and analysis, usually concerning the work of one or two filmmakers.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.
EXCLUSION(S) FILM 400/3.0-001 (2014 onward)

FILM 435/3.0 Culture and Representation: Special Topic
Advanced seminar on relations between societies and their expression in culture, with particular reference to film, television, and comparable media. Subjects have included interdisciplinary approaches and cultural studies; cinema in the Third World.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.
EXCLUSION(S) FILM 400/3.0-003 (2014 onward)

FILM 440/3.0 Non-narrative Film: Special Topic
Advanced seminar on selected areas of documentary or experimental cinemas. Subjects have included politically committed documentary in Canada; the anti-documentary.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.
EXCLUSION(S) FILM 400/3.0-005 (2014 onward)

FILM 445/3.0 Narrative Film: Special Topic
Advanced seminar on an area of narrative cinema, generally concerning a selection of feature-length films. Subjects have included international films of the 1990s.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 447/3.0 Festival Spaces: Local Markets, Global Circulation
An advanced-level course that focuses on a comparative exploration of festival contexts. In addition to case studies and critical readings, the seminar will treat festivals as course texts through field trips and engagement in the local Kingston Canadian Film Festival and Reelout Queer Film and Video Festival.
LEARNING HOURS 108(36l;24Lb;48P)
PREREQUISITE (Registration in a FILM Plan, STSC, MAPP or COCA Specialization) and 30.0 units in FILM or permission of the Department.

FILM 450/3.0 The Business of Media
A 12-week course that serves as a general primer on the current business of media in Canada as it pertains to narrative storytelling. Students explore business considerations throughout the production cycle, from development to production to distribution and marketing, as well as examine various different career paths in media.
NOTES This course is reserved for fourth year students. Priority will be given to FILM Majors
LEARNING HOURS 108 (36L;24Oc;48P)
PREREQUISITE Level 4 and Registration in a FILM major or Medial Plan, STSC,MAPP or COCA Specialization

FILM 451/3.0 Production: Special Topic
Advanced seminar/workshop in an area of film or video production, generally involving intensive analysis of existing work and practical assignments.
NOTE This course is reserved for fourth year students. Priority will be given to FILM Majors and Medials, as well as students in the MAPP Specialization.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Level 4 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization

FILM 455/3.0 Cross-Platform Storytelling
A practical special topic course that explores how a single story can be told across different popular media with special attention to emerging platforms and technologies, from graphic novels to video games, augmented reality to virtual reality.
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 456/3.0 The Video Essay
This course will introduce students to the "Video Essay", a form of film and media study which combines textual or language based elements of conventional scholarly analysis with relevant audio-visual materials. Student video essay productions will use the essential component parts of media work directly in the analytical and production process.
NOTE Priority will be given to FILM, STSC, MAPP, COCA, and MDIA students
LEARNING HOURS 108 (36L;24Lb;48P)
PREREQUISITE Registration in a FILM Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FILM 457/1.5 Film and Media Practicum l
This course enables students to complete 50 hours of industry-focused practical experience, combined with various hands-on production opportunities or short work placements.
LEARNING HOURS 54(18L;12Lb;24P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and FILM 250/6.0 and 24.0 units in FILM or permission of the Department.
EXCLUSIONS No more than 3.0 units from FILM 415/3.0; FILM 457/1.5; FILM 458/1.5

FILM 458/1.5 Film and Media Practicum ll
This advanced course enables students to complete 50 hours of industry-focused practical experience, combined with various hands-on production opportunities or short work placements, building on previous experience in FILM 457.
LEARNING HOURS 54(18L;12Lb;24P)
PREREQUISITE Registration in a FILM Plan, STSC/MAPP or COCA Specialization and FILM 250/6.0 and FILM 457/1.5 and 24.0 units in FILM.
EXCLUSIONS No more than 3.0 units from FILM 415/3.0; FILM 457/1.5; FILM 458/1.5

FILM 460/6.0 Major Project
Seminar that draws on students' previous work to enhance advanced research, production and writing for final project in creative writing, criticism, journalism, production and/or curating and programming film, media, and digital culture. Topics from theory, criticism, and history of film, media, digital culture, film festivals, media arts exhibitions and museums will be addressed to suit individuals. Examples from narrative, documentary, experimental film or digital media art will be analyzed. Student projects will be published online and/or exhibited at the new Isabel Bader Centre for the Performing Arts.
NOTE Open to FILM Major students only.
LEARNING HOURS 228 (36L;36G;36O;120Oc)
PREREQUISITE Registration in a FILM Major and 30.0 units in FILM or permission of the Department.

FILM 500/6.0 Honours Thesis

Open to students completing an honours concentration in Film and Media, or Stage and Screen Studies. May be an essay or a film or video project. Apply for FILM 500/6.0 or FILM 501/3.0, but not both, to the Undergraduate Coordinator by end of Level 3.

NOTE To use Film and Media video equipment the student must have completed *FILM 250/6.0.or* FILM 250/3.0

PREREQUISITE Level 4 and Registration in a Film Major or Medial Plan, STSC, MAPP or COCA Specialization and permission of the department.

FILM 501/3.0 Honours Thesis

Open to students completing an honours concentration in Film and Media, or Stage and Screen Studies. May be an essay or a film or video project. Apply for FILM 500/6.0 or FILM 501/3.0, but not both, to the Undergraduate Coordinator by end of Level 3.

NOTE To use Film and Media video equipment the student must have completed *FILM 250/6.0* or FILM 250/3.0

PREREQUISITE Level 4 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and permission of the Department.

FILM 510/6.0 Directed Studies

Open to students completing an honours concentration in Film and Media, or Stage and Screen Studies. Enables a student to pursue an area of study not covered in regularly offered courses. Applicants must obtain approval of the Undergraduate Coordinator and supervising instructor.

NOTE To use Film and Media video equipment the student must have completed *FILM 250/6.0.*or FILM251/3.0

PREREQUISITE Level 4 and Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and permission of the Department.

FILM 511/3.0 Directed Studies

Open to students completing an honours concentration in Film and Media, or Stage and Screen Studies. Enables a student to pursue an area of study not covered in regularly offered courses. Applicants must obtain approval of the Undergraduate Coordinator and supervising instructor.

NOTE To use Film and Media video equipment the student must have completed FILM 250/6.0.

PREREQUISITE Registration in a FILM Major or Medial Plan, STSC, MAPP or COCA Specialization and 30.0 units in FILM or permission of the Department.

FREN 106/3.0 Communication et culture I
This online French course is aimed at students with little or no knowledge of French and is designed to provide them with basic language skills to enable them to understand and use familiar everyday expressions and basic phrases in everyday situations.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Not available for credit towards any plan in FREN.
NOTE Students with a higher level of French than beginner speakers cannot enrol in this course, and will need to sign a solemn declaration to this effect at the start of the course.
LEARNING HOURS 144 (132O;12P)
EQUIVALENCY *FREN P16/3.0*.
ONE-WAY EXCLUSION May not be taken with or after FREN 107/3.0; FREN 111/3.0; FREN 112/3.0; FREN 118/3.0; FREN 150/6.0; FREN 219/3.0; FREN 320/3.0; *FREN P10/6.0; FREN P11/3.0; FREN P12/3.0; FREN P17/3.0; FREN 100/6.0; FREN 101/3.0; FREN 102/3.0; FREN 110/6.0*.

FREN 107/3.0 Communication et culture II
This online French course is designed for students with a basic knowledge of French, to supplement their language skills by enabling them to engage in everyday interactions. For students with three years of high school French or equivalent.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Not available for credit towards any plan in FREN.
NOTE Students with a higher level of French than false beginner speakers cannot enrol in this course, and will need to sign a solemn declaration to this effect at the start of the course.
LEARNING HOURS 144 (132O;12P)
EQUIVALENCY *FREN P17/3.0*.
ONE-WAY EXCLUSION May not be taken with or after FREN 111/3.0; FREN 112/3.0; FREN 118/3.0; FREN 150/6.0; FREN 219/3.0; FREN 320/3.0; *FREN P10/6.0, FREN P11/3.0; FREN P12/3.0; FREN 100/6.0; FREN 101/3.0; FREN 102/3.0; FREN 110/6.0*.

FREN 111/3.0 Révision de la grammaire I
Review of the French language in the North American context: written and oral exercises, compositions, short readings. Emphasis on grammar and vocabulary.
NOTE Not available for credit towards any plan in FREN
LEARNING HOURS 120 (36L;84P)
EXCLUSION No more than 6.0 units from *FREN P10/6.0; FREN P11/3.0; FREN P12/3.0*; FREN 111/3.0; FREN 112/3.0.
ONE-WAY EXCLUSION May not be taken with or after FREN 112/3.0; FREN 118/3.0; FREN 150/6.0; FREN 219/3.0; FREN 320/3.0; *FREN P12/3.0; FREN 100/6.0; FREN 101/3.0; FREN 102/3.0; FREN 110/6.0*.
EQUIVALENCY *FREN P11/3.0*.

FREN 112/3.0 Révision de la grammaire II
Review of the French language in the North American context: written and oral exercises, compositions, short readings. Emphasis on grammar and vocabulary.
NOTE Not available for credit towards any plan in FREN
LEARNING HOURS 120 (36L;84P)
EXCLUSION No more than 6.0 units from *FREN P10/6.0; FREN P11/3.0; FREN P12/3.0*; FREN 111/3.0; FREN 112/3.0.
ONE-WAY EXCLUSION May not be taken with or after FREN 118/3.0; FREN 150/6.0; FREN 219/3.0; FREN 320/3.0; *FREN 100/6.0; FREN 101/3.0; FREN 102/3.0; FREN 110/6.0*.
EQUIVALENCY *FREN P12/3.0*.

FREN 118/3.0 Communication et culture III
This online French course is designed for students who have completed beginner level French. Students will further develop their written and oral communication skills as well as acquire the means to competently engage in a range of everyday common social and professional situations.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Not available for credit towards any Plan in FREN.
NOTE Students who are fluent French speakers cannot enrol in this course, and will need to sign a solemn declaration to this effect at the start of the course.
LEARNING HOURS 114 (36L;18Lb;60P)
ONE-WAY EXCLUSION May not be taken after FREN 150/6.0 or *FREN 100/6.0*.

FREN 150/6.0 Français intermédiaire
Practice in reading, writing, grammar review, and literary analysis.
NOTE Placement test recommended prior to registration. For information go to:
http://www.queensu.ca/french/undergraduatestudents/placementtest.html.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 216 (48L;24T;36O;108P)
EQUIVALENCY *FREN 100/6.0*.
EXCLUSION(S) No more than 6.0 units from FREN 150/6.0; *FREN 100/6.0*; *FREN 101/3.0; FREN 102/3.0; FREN 110/6.0*.

FREN 219/3.0 Communication et culture IV
For students with immersion background.
LEARNING HOURS 114 (36L;18Lb;60P)
ONE-WAY EXCLUSION May not be taken with or after FREN 320/3.0.

FREN 225/3.0 French in the Professional Workplace
This course is designed to provide students with foundational French oral and written skills to successfully navigate through a range of professional workplace environments. It will expose students to professional situations and enable them to actively engage in real life scenarios; from applying and interviewing for a position when entering the workforce, to chairing meetings and conducting routine business as an active member of a professional organization.
NOTE This course is not intended for fluent French speakers.
NOTE Not available for credit towards any Plan in FREN.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (30O;90P)
PREREQUISITE FREN 118/3.0 or FREN 150/6.0.
ONE-WAY EXCLUSION May not be taken with or after any FREN 200 or FREN 300 level course except for FREN 219/3.0 and/or FREN 320/3.0

FREN 230/3.0 Analyse textuelle et étude de la langue
The methodology of literary analysis. Assignments may include textual analysis and dissertation.
LEARNING HOURS 120 (30L;6O;84P)
PREREQUISITE FREN 150/6.0 or *FREN 100/6.0* or (*FREN 101/3.0* and *FREN 102/3.0*) or *FREN 110/6.0.*
EXCLUSION(S) *FREN 220/6.0*; *FREN 221/6.0*.

FREN 231/3.0 Rédaction et style
A presentation of the principles of textual production in French as applied in the production of various types of texts.
LEARNING HOURS 120(24L;12G;84P)
Equivalency *FREN 330/3.0*
PREREQUISITE FREN 100/6.0 or (FREN 101/3.0 and Fren 102/3.0) or FREN 110/6.0 or FREN 150/6.0
EXCLUSION(S) *FREN 201/3.0; FREN 330/3.0*

FREN 236/3.0 French for Healthcare Professionals
This course will provide learners with work-related vocabulary as well as the written and oral communication skills to effectively engage in a range of bilingual professional environments and situations pertaining to healthcare. Throughout the course, learners work in small groups on collaborative projects to simulate real world situations.
NOTE Language is the principal focus of this course. Prior experience or professional knowledge in the field is not necessary.
NOTE This course is not intended for fluent French speakers.
NOTE Not available for credit towards any Plan in FREN.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (30O;90P)
PREREQUISITE FREN 225/3.0 or permission of the department.
ONE-WAY EXCLUSION May not be taken with or after any FREN 200 or FREN 300 level course except for FREN 219/3.0, FREN 237/3.0, FREN 238/3.0, FREN 239/3.0, FREN 320/3.0

FREN 237/3.0 French for Government Professionals
The course will provide learners with technical vocabulary as well as the written and oral French communication skills to effectively engage in a range of situations, activities, and tasks within government workplaces. Collaborative group work and assignments will simulate real world situations.
NOTE Language is the principal focus of this course. Prior experience or professional knowledge in the field is not necessary.
NOTE This course is not intended for fluent French speakers.
NOTE Not available for credit towards any Plan in FREN.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (30O;90P)
PREREQUISITE FREN 225/3.0 or permission of the department.
ONE-WAY EXCLUSION May not be taken with or after any FREN 200 or FREN 300 level course except for FREN 219/3.0, FREN 236/3.0, FREN 238/3.0, FREN 239/3.0, FREN 320/3.0

FREN 238/3.0 French for Legal Professionals
The course will provide learners with technical vocabulary as well as the French written and oral language skills to effectively communicate with French speaking clients and conduct routine legal communication in French. Collaborative group work and assignments will simulate real world situations.
NOTE Language is the principal focus of this course. Prior experience or professional knowledge in the field is not necessary.
NOTE This course is not intended for fluent French speakers.
NOTE Not available for credit towards any Plan in FREN.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (30O;90P)
PREREQUISITE FREN 225/3.0 or permission of the department.
ONE-WAY EXCLUSION May not be taken with or after any FREN 200 or FREN 300 level course except for FREN 219/3.0, FREN 236/3.0, FREN 237/3.0, FREN 239/3.0,FREN 320/3.0

FREN 239/3.0 Indigenous Arts and Cultures
This online course is intended for professionals working in contexts related to Indigenous arts and cultures (artistic and cultural organizations, education, government). It is designed to provide learners with the oral and written skills necessary to accurately understand and effectively engage with Indigenous arts and cultures in the workplace.
NOTE This course is not intended for fluent French speakers.
NOTE Not available for credit towards any Plan in FREN
NOTE Only offered online.
LEARNING HOURS 120 (30O;90P)
PREREQUISITE FREN 225/3.0 or permission of the department
ONE-WAY EXCLUSION May not be taken with or after any FREN 200 or 300 level course except FREN 219/3.0, FREN 236/3.0, FREN 237/3.0, FREN 238/3.0, FREN 320/3.0.

FREN 241/3.0 Histoire culturelle et littéraire de l'Ancien Régime
An introduction to French literature from the Middle Ages to the end of the Eighteenth Century stressing how tensions generated between different ideas within a period determine the aesthetic, philosophical, and literary choices made by major authors.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE FREN 150/6.0 or *FREN 100/6.0* or (*FREN 101/3.0* and *FREN 102/3.0*) or *FREN 110/6.0.*
EXCLUSION(S) *FREN 212/6.0*.

FREN 285/3.0 Cinéma et société: aspects culturels de la francophonie
A course focusing on the socio-cultural and political aspects of African and Caribbean cinemas.
LEARNING HOURS 120 (24L;12LB;84P)
PREREQUISITE FREN 150/6.0 or *(FREN 101/3.0* and *FREN 102/3.0)* or *FREN 100/6.0* or *FREN 110/6.0*.

FREN 304/3.0 Introduction à la littérature française du Moyen Age
A study of representative literary works in the Middle Ages, including *La Chanson de Roland, Tristan et Iseult, Le Roman de Renart, Le Roman de la Rose*, Chrétien de Troyes, Rutebeuf and Villon. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.

EXCLUSION(S) *FREN 404/3.0*.

FREN 305/3.0 Le théâtre depuis 1945
A detailed study of selected plays from French theatre since 1945. Visual presentations. Semiotic approach. Cocteau, Duras, Beckett, Ionesco, Sarraute, Sartre, Koltès. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 417/3.0*.

FREN 315/3.0 Littérature française de la Renaissance
A study of representative literary works of the 15th and 16th centuries, including Villon, Montaigne, Rabelais. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 405/3.0*.

FREN 320/3.0 Communication et culture V
For advanced students.
LEARNING HOURS 114 (36L;18Lb;60P)

FREN 323/3.0 La littérature française du 19e siècle
A detailed study of major 19th century writers. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (33L;3Pc;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 423/3.0*.

FREN 324/3.0 Le roman français du 20e siècle
A detailed study of selected novels from 20th-century French authors until 1945. Beauvoir, Camus, Céline, Cocteau, Colette, Gide, Proust, Sartre. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 424/3.0*.

FREN 325/3.0 Littérature contemporaine
A seminar on avant-garde and post-modern works in which students will be asked to examine traditional literary conventions of representation, particularly those established over the course of the 19th century. Class discussion will then shift to avant-garde and post-modern works that question such conventions and also address issues pertaining to the limits of representation. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (33L;3Pc;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 425/3.0*.

FREN 327/3.0 Le Cinéma aujourd'hui: Études thématiques
A study of cultural representations in contemporary film. Special topics may include women in cinema, culture and identity in French and/or Francophone cinema, history through cinema, avant-garde cinema and the 'nouvelle vague'. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 427/3.0*.

FREN 331/3.0 Rédaction et style II
Acquisition of a deeper knowledge of the principles of textual production, with particular emphasis on the use of computer-based grammatical and lexicographic tools, and an examination of the stylistic constraints on textual production.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (*FREN 330/3.0* or FREN 231/3.0) or *FREN 201/3.0* or *FREN 202/3.0*.

FREN 342/3.0 Histoire culturelle et littéraire de la France moderne et contemporaine
An intro. to French 19th Century and contemporary literature. More specifically focused on literature the course will also explore predominant trends in different media such as painting and cinema. Drawing on critical, historical, and literary theory, students will acquire the skills to assess how specific works reflect or relate to the aesthetic, literary, and philosophical trends of their time.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.

FREN 343/3.0 Histoire culturelle et littéraire de la francophonie et du Québec
An introduction to the history of ideas and cultural evolution in French Canada, African and Caribbean culture and literature, from the colonial period to the present day.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.

FREN 350/3.0 Littératures autochtones comparés en Amérique du Nord
An examination of comparative approaches to Indigenous literatures across North America. Questions of translation, tribal specificity, literary nationalism, inter- and trans-Indigenous orientations are examined in relation to a diversity of works by Indigenous scholars, writers, filmmakers, and other artists and thinkers.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE FREN 230/3.0 and FREN 241/3.0.

FREN 351/3.0 Écrits de la Francophonie
A study of representative works by African and the Caribbean writers. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 451/3.0*.

FREN 352/3.0 Vers de nouveaux récits pour Haiti: Une introduction aux études haïtiennes
In this course, which aims to provide a solid undergraduate-level foundation in several key figures, texts and concepts in Haitian Studies, students will learn to address some common misunderstandings about Haiti by exploring the political documents of its revolutionary period and literary representations of its popular culture and vodou.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE FREN 230/3.0 and FREN 241/3.0.

FREN 353/3.0 Phonétique et phonologie du français
Introduction to basic notions in phonetics and phonology. Physiology of speech and phonation, description and classification of French sounds, distinction between phonetics and phonology, description of the French phonological system (phonemes and feature system, phonological rules and syllable structure).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or *FREN 212/6.0* or *FREN 221/6.0.*
EXCLUSION(S) *FREN 215/6.0*; FREN 393/3.0.

FREN 360/3.0 Grammaire avance
Adetailed analysis of French grammar based on the description of language structures.
LEARNING HOURS 120(36L;84P)
EQUIVALENCY *FREN 250/3.0*
PREREQUISITE FREN 231/3.0 or *FREN 330/3.0*
EXCLUSION(S) *FREN 250/3.0*; FREN 344/3.0; FREN 393/3.0.

FREN 363/3.0 Histoire de la langue française
A study of the major steps in the evolution of French from Latin to the modern day. Subjects treated include: the languages upon which French is based; the major steps in the development of French; French as a social institution, as an official language and as a living language; the Francophone world.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE *FREN 215/6.0* or (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.

FREN 387/3.0 Littérature du 17e siècle
Seventeenth-century texts are studied in detail from the works of Cyrano de Bergerac, d'Urfé, Scarron, Furetière, Guilleragues and Mme de la Fayette. *Travaux pratiques* include oral *exposés and dissertations*.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 487/3.0*.

FREN 388/3.0 Littérature du 18e siècle
A study of significant trends in the novel of 18th century France with special emphasis on historical and aesthetic changes in the relationship between fiction and its social context. *Travaux pratiques* include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 488/3.0*.

FREN 390/3.0 Genre et littérature
A study of discourse on and by women in representative works (primarily the novel). *Travaux pratiques* may include essays and tests.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 490/3.0*.

FREN 391/3.0 Auteurs et thèmes en littérature québécoise
Focuses on a specific author or on a specific theme of Quebec literature. Topics will depend on the professor's interest and field of research. *Travaux pratiques* include essays and tests.
LEARNING HOURS 132 (24L;12S;24I;72P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 491/3.0* (formerly *FREN 407/3.0)*.

FREN 392/3.0 Paris Through Literature, Painting, Cinema, and Photography
Students will explore Paris through the diverse, creative, and anecdotal perspectives offered by writers, filmmakers, painters, photographers, and other artists. Such figures have played important roles in significant literary and artistic trends and movements, and have portrayed Paris in a variety of perspectives.
NOTE Only offered online. Consult Arts and Science Online.
NOTE Taught in English together with FRST 290/3.0. Students concentrating in French submit written assignments, tests, and examinations in French.
LEARNING HOURS 120 (48O;72P)
EQUIVALENCY *FREN 290/3.0; IDIS 290/3.0*.
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) FRST 290/3.0; *FREN 290/3.0*; *IDIS 290/3.0*.

FREN 393/3.0 Morphologie et lexicologie du français
Introduction to basic notions in French lexicology and morphology. The structure of words. Derivational and inflectional morphology. The structure of the lexicon.
LEARNING HOURS 132 (24L;12G;96P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION No more than 6.0 units from *FREN 215/6.0*; FREN 353/3.0; FREN 393/3.0.

FREN 394/3.0 Montréal Interculturel: une metropole en représentation
Montreal is a converging point for immigrants. We will explore significant texts that represent this diversity, from a migrant perspective or one of majority, and the political implications that arise in a pluralistic context, seeking to identify the model of interculturalism, and its links with notions such as hybridity adopted by migrant writers.
NOTE This course is offered in French. Students registered in FREN 394/3.0 will read texts in their French original version and write their quizzes, essay and exam in French. Those registered in FRST 294/3.0 may read texts in translation, and write their quizzes, essay and exam in English. English version of PowerPoint presentations will be available on onQ. Students registered should understand oral French at an intermediate level.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) FRST 294/3.0.

FREN 396/3.0 Cinéma et culture québécoise
A study of Québec society through the analysis of cinema focusing on the impacts of recent cultural institutions on the formation of cultural identity during and since the Quiet Revolution. *Travaux pratiques* include essays and tests.
LEARNING HOURS 136 (36L;6O;84P)
PREREQUISITE (FREN 230/3.0 and FREN 241/3.0) or (*FREN 212/6.0* and *FREN 220/6.0*) or *FREN 221/6.0*.
EXCLUSION(S) *FREN 295/3.0; FREN 496/3.0*.

FREN 397/3.0 Les humanités médicales
Drawing from the fields of art, film, philosophy and literature, this course seeks to engage students from all disciplines to explore how, as a society, we can work to better understand and address the needs of the elderly and dying.
LEARNING HOURS 114(24L;6S;6G;6O72P)
PREREQUISITE FREN 230/3.0 AND FREN 241/3.0
EXCLUSION(S) No more than 3.0 units from FREN 397/3.0; FRST 397/3.0

FREN 450/3.0 Travaux pratiques: stylistique et traduction
A practical translation course. Review exercises in comparative stylistics, written and oral thémes.
LEARNING HOURS 132 (24L;12G;96P)
EQUIVALENCY *FREN 444/3.0*.
PREREQUISITE (*FREN 250/3.0* or FREN 360/3.0) and (FREN 231/3.0 or *FREN 330/3.0)* or a grade of C in *FREN 344/3.0*.

FREN 498/6.0 Séminaire de lecture
The goal of this seminar is to enable students pursuing the final year of a Major in French Studies to apply the methods and theory acquired over the course of their program to a corpus of works not previously covered by their program. In a seminar framework, under the guidance of a professor, they will, as a group, present and discuss the fruits of their readings and the questions raised by these readings. In addition, at the end of each of the two terms, they will write an exam designed to measure their ability to consider, both broadly and deeply, the texts they have read, to synthesize their reflections in a theoretically coherent fashion, and to express their findings clearly and coherently.
LEARNING HOURS 240 (36S;204P)
PREREQUISITE Level 4 and registration in any FREN Plan or permission of the department.

FREN 499/6.0 Apprentissage et enseignement du français langue seconde
Explores teaching French as a second language in relation to didactic methods, active learning, cultural content, and pedagogic approaches through both seminars and a teaching practicum in FREN 150/6.0 (formerly *FREN 100/6.0*)**.**
NOTES This course is exclusively for Concurrent Education students who have completed the Con-Ed prerequisites in the Faculty of Education and who have completed an application and been interviewed in the spring prior to the year in which they will be enrolled in the course.
LEARNING HOURS 240 (48L;24S;48T;120P)
PREREQUISITE PROF 110/1.5 and [({PROF 210/1.5 or CURR 395/3.0} and PRAC 210/1.5) or PROF 211/1.5 and PRAC 211/1.5)]; and (FREN 230/3.0 and FREN 241/3.0 and {FREN 342/3.0 or FREN 343/3.0}) or *FREN 220/6.0* and *FREN 212/6.0*; *FREN 221/6.0*.

FREN 501/3.0 Recherches dirigées I
Research in a particular area of French literature or language under the supervision of a professor.
PREREQUISITE Permission of the Department and approval of the supervisor.
LEARNING HOURS 120 (24I;96P)

FREN 502/3.0 Recherches dirigées II
Research in a particular area of French literature or language under the supervision of a professor.
PREREQUISITE Permission of the Department and approval of the supervisor.
LEARNING HOURS 120 (24I;96P)

FREN 503/3.0 Recherches en linguistique
Research in a particular area of French Linguistics under the supervision of a professor.
LEARNING HOURS 120 (24I;96P)
PREREQUISITE *FREN 215/6.0* or (FREN 353/3.0 and *FREN 373/3.0*) and permission of the Chair of Undergraduate Studies and approval of the supervisor.

FRST 101/3.0 French Global

This course, given in English, is an overview of Francophone culture (since 1789) from a global perspective. Various historical events are observed through films, novels, and short essays.

NOTE Not available for credit towards any plan or certificate in FREN

LEARNING HOURS 120(36L;12G;72I)

May not be taken with or after any FREN course (online or in class)

FRST 105/3.0 Reading French

An online course for students with little or no previous knowledge of French. Learners will identify the key elements of a French sentence, the structure of sentences, and the devices used to combine sentences and paragraphs in French, as well as translate texts from subject areas including humanities, social sciences, business, and sciences. Explanations are given in English; all materials to be analyzed are in French.

NOTE Only offered online. Consult Arts and Science Online.

NOTE Not available for credit towards any plan in FREN.

NOTE Students with a higher level of French than beginner speakers cannot enrol in this course, and will need to sign a solemn declaration to this effect at the start of the course.

LEARNING HOURS 120 (90O;30P)

ONE-WAY EXCLUSION May not be taken with or after any FREN courses except FREN 106/3.0.

FRST 125/3.0 Basic Business French

This online course is an introduction to the language of business in French. Students will learn how to understand texts in the areas of administrative correspondence, personnel issues (CV, covering letter, hiring process), basic financial reporting, and advertising. Explanations are given in English; all materials to be analyzed are in French.

NOTE Only offered online. Consult Arts and Science Online.

NOTE Not available for credit towards any plan in FREN. With permission of the Department, course may be taken jointly with FREN 118/3.0.

NOTE Students with a higher level of French than beginner speakers cannot enrol in this course, and will need to sign a solemn declaration to this effect at the start of the course.

LEARNING HOURS 120 (96O;24P)

PREREQUISITE FRST 105/3.0 or FREN 107/3.0 or permission of the Department.

ONE-WAY EXCLUSION May not be taken with or after any FREN or FRST courses except FRST 105/3.0, FREN 106/3.0 (formerly *FREN P16/3.0*) or FREN 107/3.0 (formerly *FREN P17/3.0*).

FRST 290/3.0 Paris Through Literature, Painting, Cinema, and Photography

Students will explore Paris through the different perspectives offered by writers, filmmakers, painters, photographers, and other artists who have played an important role in significant literary and artistic trends and movements. The course covers literature, painting, and film starting at the end of the 19th century and extends to the present.

NOTE Only offered online. Consult Arts and Science Online.

NOTE Students who are registered in a French Plan must register in FREN 392/3.0 and complete their assignments in the French language.

LEARNING HOURS 120 (48O;72P)

EQUIVALENCY *FREN 290/3.0*; *IDIS 290/3.0*.

EXCLUSION(S) FREN 392/3.0; *FREN 290/3.0*; *IDIS 290/3.0*.

FRST 294/3.0 Montreal: Interculturalism in Representation

Montreal is a converging point for immigrants. We will explore significant texts that represent this diversity, from a migrant perspective or one of majority, and the political implications that arise in a pluralistic context, seeking to identify the model of interculturalism, and its links with notions such as hybridity adopted by migrant writers.

NOTE This course is offered in French. Students registered in FREN 394/3.0 will read texts in their French original version and write their quizzes, essay and exam in French. Those registered in FRST 294/3.0 may read texts in translation, and write their quizzes, essay and exam in English. English version of PowerPoint presentations will be available on onQ. Students registered should understand oral French at an intermediate level. The Department recommends students take a placement test.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above or permission of the Department.

EXCLUSION(S) FREN 394/3.0

FRST 397/3.0 Medical Humanities

Drawing from the fields of art, film, philosophy and literature, this course seeks to engage students from all disciplines to explore how, as a society, we can work to better understand and address the needs of the elderly and dying.

LEARNING HOURS 114(24L;6S;6G;6O;72P)

PREREQUISITE Level 3 or above or permission of the Department

EXCLUSION(S) No more than 3.0 units from FREN 397/3.0; FRST 397/3.0

GEOL 102/3.0 Gemstones: Their Art, History and Science
Gemstones have played an important role in society throughout history. The role of gemstones and other precious materials will be illustrated through the study of works of art and popular literature. The physical properties that make gems attractive are explained. Gemstone marketing and ethical considerations of mining methods will be explored.
LEARNING HOURS 120 (24L;12T;36O;48P)

GEOL 104/3.0 The Dynamic Earth
Introduction to the internal structure of the Earth and the processes that have shaped its surface. Global tectonics and continental movement, rock genesis, mountain building, glaciations and geological time. Laboratories include rock and mineral identification, and problem solving in historical geology, earthquakes, groundwater flow and coastal erosion.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 108 (36L;12Lb;60P)

GEOL 106/3.0 Environmental Geology and Natural Hazards
The relationship between human-kind and our ever-changing planet, with a focus on natural geologic hazards (volcanic eruptions, earthquakes, landslides, tsunamis, mass movement, floods, extraterrestrial impacts, etc.), and environmental impacts which result from population and land-use expansion and our increased use of water, energy and mineral resources. A study of the sources and impact of pollution and global climate change. Public perception of and response to geological risk.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)

GEOL 107/3.0 History of Life
The history of life, from its inception four billion years ago to the present day, focusing on the inter-relationship between organic evolution and global change. Coevolution of early life and the atmosphere; development of marine animals and their ecosystems; invasion of the land; dinosaurs and their world; mass extinctions; the Age of Mammals; and hominid evolution. Lectures plus three three-hour laboratories.
LEARNING HOURS 120 (36L;12Lb;12O;60P)

GEOL 200/3.0 Oceanography
Introduction to marine science. Topics include: ocean basins and their sediments; seawater chemistry/biochemistry; ocean waves, tides and currents; ocean-atmosphere interaction; polar to tropical organism communities; marine resources; environmental concerns; global change.
LEARNING HOURS 114 (36L;12Pc;12O;48P)
PREREQUISITE PHYS 104/6.0 or PHYS 106/6.0 or PHYS 107/6.0 or PHYS 117/6.0 or CHEM 112/6.0 or BIOL 102/3.0 or BIOL 103/3.0 or GEOL 104/3.0 or GEOL 106/3.0 or GEOL 107/3.0.

GEOL 212/3.0 Introduction to Mineralogy
An introduction to the crystallography and crystal chemistry of rock-forming minerals for students not in the Geological Sciences. The structural, chemical and genetic aspects of the crystalline state as displayed by minerals are considered.
RECOMMENDATION 4U Chemistry is required.
PREREQUISITE GEOL 104/3.0 or permission of the Department.
EXCLUSIONS GEOL 232/3.0

GEOL 221/3.0 Geological Field Methods
The field study of surficial deposits, rock types, and geological processes, based on the geology of the Kingston area. Descriptions, samples and measurements acquired on several field trips will be analyzed, and the results recorded in maps, sections, and reports throughout the course.
NOTE Transportation for six half-day field trips. Estimated cost $75.00. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
NOTE Department may require GEOL 104/3.0 and GEOL 221/3.0 to be taken concurrently.
LEARNING HOURS 120 (24L;48Lb;12T;4Oc;24P)
PREREQUISITE GEOL 104/3.0 or permission of the Department.

GEOL 232/3.0 Mineralogy
Characterization of rock- and soil-forming silicate and non-silicate minerals (their crystallography, optical and physical behaviour, and crystal chemistry). The structural, chemical and genetic aspects of the crystalline state as displayed by minerals are considered. Implications of mineral properties for the engineering behaviour of soils and rocks, and for human needs, are discussed.
LEARNING HOURS 120 (36L;36Lb;48P)
RECOMMENDATION 4U Chemistry is required.
PREREQUISITE GEOL 104/3.0 or permission of the Department.
EXCLUSIONS GEOL 212/3.0

GEOL 235/3.0 Igneous and Metamorphic Petrology
Introduction to the genesis and characterization of igneous and metamorphic rocks. Students will acquire skills to classify rocks and the theoretical background to place these rocks in the context of where, why, and how they form with implications for resource exploration and utilization. Macroscopic and microscopic properties will be studied.
PREREQUISITE GEOL 232/3.0.

GEOL 238/3.0 Surficial Processes, Sedimentation and Stratigraphy
An examination of the genetic link between surficial geological processes and the sedimentary record produced by these processes. Students obtain an integrated overview of the nature and operation of the Earth-surface environment. Topics include origin of sedimentary rocks and their sedimentary structures, depositional environments and stratigraphic successions; stratigraphic principles and their application to sedimentary basins, with implications for hydrocarbon genesis; interaction of natural processes with human society.
LEARNING HOURS 130 (36L;22Lb;72P)
PREREQUISITE GEOL 104/3.0 or permission of the Department.

GEOL 249/3.0 Geophysical Characterization of the Earth
The application of physical principles to examine and characterize the Earth at all scales. The Earth's physical properties and dynamic processes will be assessed and evaluated by integrating such topics as gravity, seismology, magnetism, geochronology, and heat flow, as related to scientific and engineering problems.
LEARNING HOURS 117 (36L;48Pc;7G;24P)
PREREQUISITE GEOL 104/3.0 or permission of the Department.
COREQUISITE [MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0)] and (PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0 or PHYS 118/6.0 or *PHYS 107/6.0*) or permission of the Department.
EXCLUSION(S) GEOL 269/3.0.

GEOL 262/3.0 Geological Aspects of Mineral Deposits
The basic mineralogy and petrology of mineral deposits are examined. The formation and classification of mineral deposits, considering such aspects as tectonic setting, age, rock composition, geometry, and mineralogy are investigated. Emphasis is placed on the processes by which mineral deposits are formed and transformed, and their influence on mining and production. Laboratory work integrates geological information from the scale of hand samples to regional maps as tools to assist with mine design, estimation of ore grade and evaluation of issues related to ore processing.
LEARNING HOURS 114 (36L;18Lb;60P)
PREREQUISITE GEOL 104/3.0.
ONE-WAY EXCLUSION May not be taken with or after GEOL 232/3.0; GEOL 362/3.0.

GEOL 269/3.0 Physics of the Earth
An examination of the physical principles and properties exhibited by the Earth which can be used to understand its origin, structure, dynamic processes, and evolution through time. Topics such as gravity, seismology, magnetism, geochronology, and heat flow are discussed in conjunction with the unifying theory of plate tectonics.
LEARNING HOURS 117 (36L;8T;42Pc;7G;24P)
RECOMMENDATION 4U Physics is required.
PREREQUISITE GEOL 104/3.0 or permission of the Department.
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0) or permission of the Department.
EXCLUSION(S) GEOL 249/3.0

GEOL 282/3.0 Managing Earth Systems: Resources and Environment
An earth-system engineering perspective on the nature, acquisition and utilization of energy, mineral and water resources, with particular emphasis on the environmental considerations in their extraction, processing, and use. Criteria for designing resource exploration programs are examined. Practical exercises, projects and seminars (team and individual) deal with these issues, and include the design of risk-management plans, environmental life-cycle assessments, sustainable systems and ore-reserve estimations.
PREREQUISITE GEOL 221/3.0 or GEOL 232/3.0, or permission of the Department.

GEOL 290/3.0 Worldbuilding
A blended in-person and online lecture and design studio course on the design of worlds for fiction, art, game-design, communications, and more. Lectures and guest-lectures emphasize the requisite science, humanities, and social sciences to constrain a collaborative world building exercise delivering a partially realized world.
LEARNING HOURS 120 (24L; 24Lb;72P)
PREREQUISITE Level 2 or above

GEOL 300/3.0 Geological Field School
An intensive one-week course taken immediately before the beginning of third year. Teams of students design and implement a geological field investigation program to produce and interpret geological field maps.
NOTE The cost of accommodation, transportation and food will be borne by the student. Please consult the Departmental website for more information. Estimated $350.00. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 120 (120Oc)
PREREQUISITE GEOL 221/3.0 and GEOL 235/3.0 or permission of the Department.

GEOL 301/1.5 Field Studies in Geology I
A multi-day field trip that uses stratigraphic, sedimentological, and paleontological data to interpret rock successions in a paleoenvironmental and tectonic context. Enrolment is limited.
NOTE The course runs during the week of Canadian Thanksgiving. Please contact the Department for more information. Please see the departmental webpage for information on costs. Estimated $350.00. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 61 (1L;30Pc;15G;15P)
PREREQUISITE GEOL 238/3.0.
COREQUISITE GEOL 321/3.0 or GEOL 337/3.0 or GEOL 368/3.0.
EXCLUSION(S) GEOL 302/1.5; GEOL 368/3.0 (prior to 2013); GEOL 478/3.0 (prior to 2013); GEOL 488/3.0 (prior to 2013).

GEOL 302/1.5 Problems in Sedimentary Geology
An independent study of the general links between tectonics and the nature of the sedimentary record in a variety of carbonate and siliciclastic depositional environments.
NOTE This course is intended to provide an option for students in lieu of GEOL 301/1.5.
LEARNING HOURS 60 (10I;50P)
PREREQUISITE GEOL 238/3.0
COREQUISITE GEOL 321/3.0 or GEOL 337/3.0 or GEOL 368/3.0 and permission of the Department.
EXCLUSION(S) GEOL 301/1.5; GEOL 368/3.0 (prior to 2013); GEOL 478/3.0 (prior to 2013); GEOL 488/3.0 (prior to 2013).

GEOL 319/3.0 Applied Geophysics
Geophysical methods (gravity, magnetic, electrical, and seismic) applied to engineering problems, including resource exploration and site investigation. Design of field programs considering physical principles, instrumentation, limitations, field procedures and data interpretation. Laboratory projects with geophysical equipment are undertaken.
LEARNING HOURS 121 (21L;18Lb;22T;12Oc;48P)
PREREQUISITE GEOL 249/3.0 or permission of the Department.

GEOL 321/3.0 Analysis of Rock Structures
The nature, origin, and interpretation of deformation and fracture of rocks, and the application of structural methods to site-investigation and resource exploitation. Topics include geometric, kinematic and dynamic analysis of brittle and ductile deformation features; and examination of deformation styles in selected tectonic environments.
NOTE One field trip with a transportation fee. Estimated $25.00. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 122 (36L;18Lb;8Oc;60P)

COREQUISITES GEOL 300/3.0

GEOL 333/3.0 Terrain Evaluation
An introduction to the principles of geomorphology relevant to Geological Sciences and Geological Engineering. Identification and evaluation of terrain features using analog and digital imagery via traditional and digital (GIS) methods. Digital terrain model acquisition and analysis. Introduction to digital terrain analysis.
LEARNING HOURS 124 (36L;33Lb;55Pc)
PREREQUISITE GEOL 104/3.0 or permission of the Department.

GEOL 337/3.0 Paleontology
Review of the major groups of invertebrate fossils, emphasizing functional morphology, paleoecology, evolution, and geological significance.
NOTE Course includes a required one-day paleontological field trip. Please contact the Department for more information. Estimated $25. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 129 (36L;24Lb;6Pc;9Oc;54P)
PREREQUISITE GEOL 238/3.0 or BIOL 202/3.0 or permission of the Department.

GEOL 341/3.0 Problems in Geology
A problem-oriented course involving a substantial amount of self-directed learning about a topic of the student's choosing, culminating in the submission of a written report. This course is open to students only if a suitable faculty member is available.
LEARNING HOURS 120 (6I;114P)
PREREQUISITE Level 3 or above in a GEOL Major or Specialization Plan or permission of the Department.

GEOL 343/3.0 Hydrogeology
Development of the equations governing flow and transport; sensitivity to sub-surface complexities. Field instrumentation, installation and sampling protocols, elements of groundwater investigation. Assessment of measurement techniques and interpretation of fundamental hydrogeological properties. Groundwater occurrence, flow system analysis, with a focus on designing extraction scheme.
NOTE One field trip with a transportation fee. Estimated $25. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
PREREQUISITE GEOL 238/3.0 and CHEM 112/6.0 or permission of the Department.

GEOL 352/3.0 Topics in Mineralogy
Through lectures, seminars and assigned readings selected topics in mineralogy are explored. Emphasis on the current literature and the details of mineralogical phenomena will lead to better understanding of petrologic systems.
NOTE This course may not be offered every year. Consult: http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 120 (24L;36Lb;60P)
PREREQUISITE GEOL 232/3.0 or GEOL 212/3.0.

GEOL 359/3.0 Applications of Quantitative Analysis in Geological Sciences
The theory and use of numerical computational procedures to solve geo-engineering and geoscience problems. The utility, significance and widespread applicability of analytical and numerical techniques will be illustrated in the evaluation and solution of practical problems.
LEARNING HOURS 128 (36L;22T;6I;16Oc;48P)
PREREQUISITE GEOL 249/3.0 and (MATH 225/3.0 or *MATH 232/3.0*).
COREQUISITE STAT 263/3.0.
EXCLUSIONS *GEOL 349/3.0*.

GEOL 362/3.0 Petrology Applied to Ore Deposits
Characterization of major ore deposit types using petrological, geochemical and geophysical engineering sciences. Tectonic setting, age, rock composition, geometry, mineralogy and textures, geochemical and geophysical signatures. Metallogenic epochs and provinces. Design and evaluation of ore deposit models and exploration programs, including ore processing and environmental issues. Laboratory work integrates techniques of ore microscopy to determine paragenetic sequences, estimation of ore grade and evaluation of issues related to ore processing and site contamination.
LEARNING HOURS 121 (33L;33Lb;55P)
PREREQUISITE GEOL 235/3.0 or permission of the Department.

GEOL 365/3.0 Geochemical Characterization of Earth Processes
The application of thermodynamics and kinetics to the understanding of natural processes in the Earth Sciences. Distribution of the elements, and practical uses of isotopes and elemental tracers. Geochemical actions and transactions within, and among, the lithosphere, hydrosphere, atmosphere and biosphere, including the impact of human evolution and environmental geochemistry. Practical application of geochemistry to solving problems in natural systems will be emphasized. A practical involving problems, laboratory experience and field experience will be part of the course.
PREREQUISITE CHEM 112/6.0 and GEOL 232/3.0 and GEOL 235/3.0, or permission of the Department.

GEOL 368/3.0 Carbonate Sedimentology
The origin, composition and diagenesis of carbonate rocks. Study of modern carbonate sediments and depositional environments; development of facies models; petrographic and geochemical analysis of limestones and dolostones.
NOTE One field trip with a transportation fee. Estimated $25.00. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 121 (33L;18Lb;70P)
PREREQUISITE GEOL 238/3.0 or permission of the Department.
COREQUSITE GEOL 301/1.5.

GEOL 395/3.0 Geological Practicum
Students working for a company or government in geology or environmental geology can apply for a practicum credit. Requirements: minimum 12 weeks of continuous employment, securing a faculty member as an advisor and evaluator, agreement with employer prior to commencement of work, and submission of a final report.
LEARNING HOURS 120 (120Pc)
PREREQUISITE GEOL 104 or permission of Department

GEOL 400/3.0 Advanced Geological Sciences Field School
Intense one week field course taken after third year. Field assignments of geological interest, local and regional geology and tectonic evolution of the area visited. Daily assignments when in the field on a diversity of geological problems.
NOTE Extra fees will apply to cover the cost of accommodation, travel and food. Will occur in the Fall, Winter or Summer Term.
LEARNING HOURS 120 (4.5L;4.5S;15G;90Oc;6P)
PREREQUISITE GEOL 300/3.0, GEOL 321/3.0 and GEOL 365/3.0 or permission of the Department.

GEOL 401/1.5 Field Studies in Geology II
A multi-day field trip that uses stratigraphic, sedimentological, paleontological, and structural data to interpret shall-and-deep-marine rock successions in paleoenvironmental and tectonic context. Enrollment is limited. Course runs during the week of Canadian Thanksgiving.
NOTE For more information on costs see the departmental webpage for more information. Estimated $350. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 61 (1L;30Pc;15G;15P)
PREREQUISITE (A GPA of 2.90 in GEOL 221/3.0, GEOL 238/3.0 and GEOL 321/3.0) or permission of the Department.
COREQUISITE GEOL 488/3.0.
EXCLUSION(S) GEOL 402/1.5.

GEOL 402/1.5 Problems in North American Geology
The self-directed detailed study of some aspect of the geological evolution of eastern North America. The topic will complement the knowledge gained in GEOL 488/3.0.
NOTE This course is intended to provide an option for students in lieu of GEOL 401/1.5.
LEARNING HOURS 60 (10I;50P)
PREREQUISITE (A GPA of 2.90 (obtained in any term) or a 'PASS' (obtained in Winter 2020) in GEOL 221/3.0, GEOL 238/3.0, and GEOL 321/3.0) or permission of the Department.
COREQUISITE GEOL 488/3.0 and permission of the Department.
EXCLUSION(S) GEOL 401/1.5; GEOL 368/3.0 (prior to 2013); GEOL 488/3.0 (prior to 2013).

GEOL 418/3.0 Petroleum Geology
The origin, migration and accumulation of petroleum resources, emphasizing typical reservoir styles, potential reservoir lithologies, methods of exploration and basic concepts of formation evaluation. Concepts and applications equip students

with the basic principles necessary to undertake petroleum industry exploration and production. Laboratory exercises include a major exploration problem and presentation.
NOTE This course may not be offered every year. Consult: http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 129 (36L;33Lb;60P)
PREREQUISITE GEOL 238/3.0 or permission of the Department.
COREQUISITE GEOL 321/3.0.

GEOL 419/3.0 Geophysics Field School
This 12-day, intensive field course focuses on field and laboratory techniques using a wide array of geophysical site investigation and exploration methods. Review lectures on instrument theory and principles of exploration program design. The course culminates in an exercise to design and implement an integrated geophysical site investigation.
NOTE Please contact the Department for more information. Estimated $800. These are estimated field trip fees. Fees are subject to change and will be finalized by August 1 each year. Please see Departmental website.
LEARNING HOURS 120 (8L;12G;60Pc;40P)
PREREQUISITE GEOL 319/3.0 or permission of the Department.

GEOL 438/3.0 Topics in Sedimentary and Petroleum Geology
A course on a topic in the field of sedimentary geology, sedimentary geochemistry, basin analysis and/or petroleum geology.
NOTE Consult the Chair of Undergraduate Studies for details of specific course offerings each academic year.
PREREQUISITE Level 3 or above in a GEOL Major, Medial or Specialization Plan.

GEOL 439/3.0 Advanced Applied Geophysics
Advanced theory and techniques for acquisition, processing and interpretation of geophysical data. Solve a problem from idea, strategy, data acquisition, processing, to interpretation and deliverables. Design projects exploit seismic, gravity, magnetic, EM methods, in oil/gas/mineral exploration, near-surface prospecting and site investigation.
LEARNING HOURS 128 (21L;24G;35I;24Oc;24P)
PREREQUISITE GEOL 249/3.0 and GEOL 319/3.0 or permission of the Department.

GEOL 452/3.0 Instrumental Techniques Applied to the Study of Solids
The theory and practical aspects of the techniques of X-ray powder diffraction and scanning electron microscopy are studied. Other techniques including Mossbauer, infra-red spectroscopy, and nuclear magnetic resonance spectroscopy will also be covered. An extensive term project is required where the student employs these techniques to study a material of their choice.
NOTE This course may not be offered every year. Consult: http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 120 (24L;36Lb;60P)
PREREQUISITE GEOL 232/3.0 or permission of the Department.

GEOL 462/3.0 Advanced Petrogenesis and Metallogenesis
Igneous petrology, geochemistry and fluid-rock interaction applied to metallogeny and ore genesis. Case studies in mineral chemistry and geochemistry. Lectures, critical reading, laboratory work and seminars will provide an advanced understanding of the major ore-forming processes in a geodynamic setting and applications to mineral exploration.
LEARNING HOURS 120 (24L;12S;36Lb;48P)
PREREQUISITE (GEOL 362/3.0, GEOL 365/3.0) or permission of the Department.

GEOL 463/3.0 Spatial Information Management in the Geosciences
An introduction to spatial information management focusing on methods to support and extend geological mapping, mineral and petroleum exploration, and engineering site investigation. Computers and computation, GIS software and theory, spatial simulation and analysis, databases and data management, and design of effective decision support solutions.
NOTE This course may not be offered every year. Consult: http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 112 (33L;24Lb;55Pc)
PREREQUISITE GPHY 243/3.0 or GEOL 333/3.0 or permission of the Department.

GEOL 464/1.5 Visualization in the Geosciences
An introduction to 3D visualization of natural sciences data with a focus on methods relevant to geological engineering, mineral exploration, and geoscience research. Perception, representation, and analytical methods. Design tools and data integration methods. Temporal analysis of natural sciences data. LiDAR data analysis. Global and local models.
LEARNING HOURS 58 (18L;18Lb;22Pc)

PREREQUISITE GEOL 463/3.0 or permission of the Department.

GEOL 466/3.0 Isotopes and the Environment

This course is designed to expose advanced students in the fields of biology, chemistry, geography or geology to the principles of stable isotope and radiogenic isotope systematics in natural processes. Emphasis will be placed on the use of isotopes in tracing elemental cycles, biological cycles and hydrologic cycles and how some isotopes can be used to place constraints on the timing of specific events in these cycles.
NOTE This course may not be offered every year. Consult; http://www.queensu.ca/geol/courses for more information
LEARNING HOURS 120 (36L;12S;12Lb;60P)
PREREQUISITE CHEM 112 or permission of the Department.

GEOL 472/3.0 Economic Analysis Methods in Geological Engineering

Cost, risk, and return characteristics of mineral exploration; introduction to economic evaluation; cash flow and time value concepts; discounted cash flow methods; mining taxation considerations; sensitivity and risk analysis techniques; exploration economics and strategies; evaluation of exploration projects; exploration planning issues.
PREREQUISITE GEOL 235/3.0 and permission of the Department.

GEOL 475/3.0 Exploration and Environmental Geochemistry

Rock-water interaction and element migration in near surface environments applied to environmental and exploration problems. Students learn field and analytical techniques, evaluate and interpret geochemical data, and design solutions related to geochemical hazards to human health, environmental impact of mining, and detection of mineral deposits.
LEARNING HOURS 129 (30L;6S;33Lb;60P)
PREREQUISITE GEOL 365/3.0 or permission of the Department.
EXCLUSION(S) GEOL 485/3.0.

GEOL 478/3.0 Terrigenous Clastic Sedimentology

Principles of sequence stratigraphy. Depositional processes, facies models, and sequence stratigraphy of fluvial, coastal, shelf, and deep-marine environments. Introduction to analysis of sedimentary basins.
NOTE This course may not be offered every year. Consult; http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 130 (48L;10S;36Lb;36P)
PREREQUISITE GEOL 238/3.0 or permission of the Department.

GEOL 481/3.0 Advanced Structural Analysis

Applications of the principles of brittle and ductile deformation to the fabric analysis of rocks in the optimization of strategies for open-ended resource exploration, resource engineering, continental tectonics studies, and geotechnical engineering problems. Emphasis is on fracture, fault, and vein analysis; structures in fold and thrust belts and continental collision zones; and studies of superposed deformation and their impact on effective and economical mineral resource development.
NOTE This course may not be offered every year. Consult: http://www.queensu.ca/geol/courses for more information.
LEARNING HOURS 120 (24L;24Lb;12T;60P)
PREREQUISITE GEOL 321/3.0 or permission of the Department.

GEOL 488/3.0 Geology of North America

An advanced course discussing the principles of earth evolution as exemplified by North America. The holistic approach illustrates the way in which geodynamics, geochemistry, sedimentation, paleo-biology and oceanography are used to unravel the history of the continent.
NOTE GEOL 321/3.0 may be taken concurrently with permission of the Department.
LEARNING HOURS 120 (36L;36S;48P)
PREREQUISITE (GEOL 107/3.0 and GEOL 235/3.0 and GEOL 238/3.0 and GEOL 249/3.0 and GEOL 300/3.0 and GEOL 321/3.0 and GEOL 365/3.0) or permission of the Department.

GEOL 543/6.0 Research and Thesis

Directed, independent research on geological problems. The thesis may be based on data or material collected during summer fieldwork or in the fall/winter around Kingston, on laboratory research, or using published data. Monthly tutorials will cover various aspects of literature review, writing skills and oral presentations. A seminar concerning the thesis topic will be presented at the end of Winter term.
NOTE An electronic copy of the final thesis, formatted to the supervisor's satisfaction, must be uploaded to Qspace. The supervisor may require one hardcopy.

LEARNING HOURS 258 (6L;12S;48I;192P)
PREREQUISITE Level 4 in a GEOL Major or Specialization Plan, and a GPA of 3.3 (obtained in any term) or a 'PASS' (obtained in Winter 2020) in 36.0 units in GEOL, and permission of the Department.

GNDS 120/3.0 Women, Gender, Difference
This course explores women, gender, and difference from feminist and anti-racist perspectives. It identifies the ways in which women's activism, politics, and experiences intersect with other gendered identifications such as race, location, class, (dis)ability, and sexuality. Lessons and texts will introduce feminism, the body, colonialism, gender performance, and strategies of resistance.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T; 84P)

GNDS 125/3.0 Gender, Race and Popular Culture
Explores popular culture from feminist and anti-racist perspectives, with attention to sexuality, gender, race and nation in a variety of media.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T;84P)

GNDS 211/3.0 Feminist Histories
A study of feminist narratives and gender politics in relationship to women's lives from the 17th century forward with an emphasis upon global histories.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department.

GNDS 212/3.0 Racism, Colonialism and Resistance
Decades after the formal decolonization of former colonies, the power relations of the colonial world - and the racism it engendered - remain deeply embedded in the West, and are intrinsic to contemporary relations of globalization. This course explores European colonialism; historical and social constructions of 'race'; the ongoing occupation of Indigenous peoples' territories; and contemporary racism.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 2 or permission of the Department.

GNDS 215/3.0 Introduction to Sexual and Gender Diversity
This course is an introduction to studies in sexuality and gender diversity. It will survey the field and include topics such as classical inquiries into sexuality, contemporary theories on Lesbian, Gay, Bisexual, Transgender and Queer identities, sexual movements, human rights, sexual morality, pornography, global sex trade, and queer cultural production. This course is open to all students but required for students enrolled in the Certificate in Sexual and Gender Diversity. It is designed to introduce SXGD students to the field and prepare them for selecting future courses.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 2 or permission of the Department.

GNDS 280/3.0 Special Topics in Gender Studies
Offered when faculty resources permit, these courses are analyses of particular areas of gender studies interdisciplinary research. Details regarding specific topics will be available from the Head of the Department on an annual basis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department.

GNDS 285/3.0 Transgender Politics and Representation
In this class we will consider questions of Trans representation, activism, experience and social erasure. Students will acquire familiarity with key texts and debates, engaging topics such as medicalization, racial and gendered visibility, imprisonment, etc. The course will situate contemporary trans politics intersectionally and transnationally.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS GNDS 280 (Topic: Transgender Politics and Representation2015-16 and 2016-17)

GNDS 295/3.0 Comics and Politics
The course explores historical and contemporary comics, graphic novels, and sequential art in connection with debates surrounding race, class, nation, sexual and gender diversity. Topics include documentary, war, trauma, transgender studies, memory, heroism, capitalism, humour, feminist thought, medical humanities, digital culture, and satire.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or permission of the Department.
EXCLUSION(S) GNDS 280-004 (2017-2018)

GNDS 311/3.0 Feminist Thought
This course examines different forms and critiques of feminism, and major issues in the development of feminist activism and feminist theory, including challenges to the colonial history of Western feminism. Students engage with current debates in feminism, gender and queer theory, and anti-racism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 and GNDS 120/3.0 or GNDS 125/3.0.

GNDS 312/3.0 Black Feminisms
Studies in black women's and black gender politics in Canada, the U.S.A., and the Caribbean.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 315/3.0 Feminist Pedagogies
This course looks at teaching and learning, in formal and informal educational settings, from feminist perspectives. Explores difference (race, class, gender, sexuality, ability), social justice and activism, power and empowerment, critique and transformation, experience, and reflexivity. Students will develop their feminist pedagogical values and skills.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 320/3.0 HIV/AIDS Movements: Histories of Community Health Activism
Centers historical movements in communities affected by AIDS as sources of unique critical theories of disease, health, power, and social change. Highlights how testimonies, cultural and creative work, and social research in community-based AIDS activism inspire current critical theory in feminist, queer, disability, and critical race studies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department

GNDS 321/3.0 Gendering Opportunities – Women's Work
This course offers an interdisciplinary framework of feminist thought on women, work and employment opportunities. It takes a comparative look at socio-political feminist theories on work and employment in different social and cultural contexts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.
EXCLUSIONS GNDS 380/3.0 Topic: Gendering Opportunities – Women's Work

GNDS 325/3.0 Indigenous Meanings of Reproduction and Health
Indigenous meanings of reproduction and health will form the core of this course. We will discuss the bio-medical model and examine how it has influenced the health of Indigenous peoples, with a particular focus on maternity care in Canada. We will discuss contradictions and incongruencies in an open, respectful, and thought-provoking manner
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 326/3.0 Gender, Diaspora and the Arts
This course explores transnational realities and diasporic experience, with particular attention to gender and sexuality, through the arts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above

GNDS 330/3.0 Gender and the Global South
This course examines gender in an international context with emphasis on current global issues of women and development. Topics include gendering international political economy, women's health and sexualities, and forms of struggle, resistance and change in non-western contexts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 335/3.0 Science Fiction and Fantasy
This course examines ways in which science fiction and fantasy writers use technology and the fantastic as tools for the deconstruction and reconstruction of gendered categories. The emphasis is on contemporary novels as offering deliberate and sophisticated interventions in major discourses in gender studies, with attention to issues of race, class, and nationhood.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 340/3.0 Indigenous Women, Feminism and Resistance
Examines scholarship, creative works, and activism by Indigenous women as a basis for introducing Indigenous feminist thought. Cases examine the many ways that Indigenous women and LGBTQ/Two-Spirit people participate in Indigenous nations, experience and resist settler colonialism, and work for Indigenous decolonization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 345/3.0 Research Methods in Gender Studies
This course provides a critical interdisciplinary introduction to methods and methodological issues in gender studies research.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 and GNDS 120/3.0 or GNDS 125/3.0

GNDS 350/3.0 Feminism, the Body and Visual Culture
This course will explore how the visual constructs and/or subverts 'woman' as a cultural category. An emphasis will be placed upon the female body as it intersects with class and race. Readings from art history, history, cultural theory and feminist theory will be considered.
NOTE Also offered at the Bader International Study Centre.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 351/3.0 Gender, Dress and Fashion
An investigation of gender as it is constructed in historical and contemporary dress and fashion. The focus will be upon visual culture and material culture.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 352/3.0 Gender, Cloth and Globalization
This course will examine the gendered history of the production and consumption of cloth, the impact of changing technologies on the textile industry since the 18th century, and the ensuing tensions between the industrial and the hand-crafted.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 360/3.0 Masculinities: Cross Cultural Perspectives
Considers the main themes in the history of masculinity and male sexuality, especially 'dissident' or subaltern masculinities internationally, and women's roles in shaping ideologies of masculinity. Topics include the theorization of masculinity, initiation rituals, family and parenting, violence, sports, homophobia, sexual practices, colonialism, science/epistemology and men and feminism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 365/3.0 Gender Dialogues: Jewish, Muslim and Christian
This course takes an intersectional approach to contemporary interfaith dialogues, with the aim of exploring and developing religious, ethical, and cultural literacies. The course considers the construction of gender norms, stereotypes, cultural expectations, religious expectations and practices, and state policies post 9/11.
NOTE Also offered at the Bader International Study Centre.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 370/3.0 Writing Lives: Feminism and Women's Writing
Using feminist, trans and queer theory, critical race, disability studies, literary and cultural criticism, this course explores women's writing in a wide range of genres, with emphases on memory and self-narration and the ways in which subjects located or rejected as 'women' contend with binary, racialized and classed frames of gender.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 375/3.0 Queer/Race Studies
This course explores current theory in queer studies by centrally examining the interdependence of race, sexuality, and gender. The course foregrounds the critical insights that follow sustained study of race in queer studies, and of queer matters in critical race, Indigenous, global, and diaspora studies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 380/3.0 Special Topics in Gender Studies
Offered when faculty resources permit, these courses are analyses of particular areas of gender studies interdisciplinary research. Details regarding specific topics will be available from the Head of the Department on an annual basis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GNDS 401/3.0 Debates on Feminism and Islam
This course focuses on the theories, political activities, and organizing of Islamic feminists. It situates itself in relation to contemporary debates around the status of women in Islam and problematizes the nature of feminism and its assumed relationship to Islam. The course will focus on questions of religion, race, class, and nationalism in relation to Islam and Muslim women. This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 410/3.0 Special Topics in Gender Studies
Offered when faculty resources permit, these courses are intensive analyses of particular areas of gender studies interdisciplinary research. Details regarding specific topics will be available from the Head of the Department on an annual basis.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 412/3.0 Seminar in Sexual and Gender Diversity
This course provides an advanced study in specific topics and theories relating to the fields of sexual and gender diversity. Topics may change from year to year. This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 421/3.0 Gender and Poverty
This course is designed to provide an in-depth exploration of poverty issues in Canada. It includes discussions about working poor and welfare poor and addresses how race and sexuality can compound the issues of poverty. The course will also acknowledge how poor people are actively engaged in attempting to improve their lives through anti-poverty organizing. This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.
EXCLUSIONS POLS 318/3.0; POLS 382/3.0.

GNDS 427/3.0 Towards the Human: Race and the Politics of Expression
This interdisciplinary seminar will explore the ways in which modernity shapes cultural 'difference' and 'the human'. Readings will focus on the racial and geographic contours of colonialism, transatlantic slavery and The Enlightenment in order to bring into focus communities that challenge racial-sexual categorization through creative expression (music, fiction, poetry, and visual art as well as theory). This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 428/3.0 Gender Performance
This advanced seminar addresses some of the many meanings and manifestations of 'gender performance' in literature and popular culture. Primary sources include a wide variety of media - novels, plays, poems, films, magazines and cartoons. Primary material will be balanced with careful consideration of work in areas such as feminist theory, identity politics, queer and performance theory. This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 432/3.0 Settler Colonialism and Indigenous Politics
Examines critical theories and case studies of politics and governance in Indigenous and settler societies, based in Indigenous feminist thought. Cases examine the relation between nationality, gender, and sexuality within colonial relations of rule, methods of Indigenous governance, Indigenous sovereignty struggles, and theories and practices of decolonization. This course contains an intensive and independent study component.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 440/6.0 Social Justice Practicum: Learning through Community Organizing and Activism
A seminar in which students work in and outside the classroom on community organizing projects. Students reflect on how feminist, anti-racist, and queer theory can be integrated with real world practices.
LEARNING HOURS 240 (36S;72Pc;132P)
PREREQUISITE Level 3 or above in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 445/3.0 Feminist and Queer Ethnography
Examines feminist ethnography and queer ethnography as distinct subfields, areas of inquiry, writing genres and ethical methods in research and social life. Topics: historical uses of ethnography and feminist/queer/trans critiques of them; adaptations of ethnography to trans, queer, and feminist work; ethnography's importance to gender studies.
LEARNING HOURS 120 (12L;24S;36G;48P)
PREREQUISITE Level 3 or above and registration in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 480/3.0 Special Topics in Gender Studies
Offered when faculty resources permit, these courses are analyses of particular areas of gender studies interdisciplinary research.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above and registration in a GNDS Major or Medial or SXGD Plan, or permission of the Department.

GNDS 510/6.0 Directed Special Studies
In consultation with the Head of the Department, students arrange their reading with individual Gender Studies faculty, and are expected to write reports on their readings and to discuss them throughout the term with that faculty supervisor.
LEARNING HOURS 240 (15I;225P)
PREREQUISITE Level 3 or above and registered in a GNDS Major or Medial or SXGD Plan or permission of the Department.
EXCLUSIONS GNDS 520/3.0; GNDS 530/3.0

GNDS 520/3.0 Directed Special Studies
In consultation with the Head of the Department, students arrange their reading with individual Gender Studies faculty, and are expected to write reports on their readings and to discuss them throughout the term with that faculty supervisor.
LEARNING HOURS 120 (9I;111P)
PREREQUISITE Level 3 or above and registered in a GNDS Major or Medial or SXGD Plan or permission of the Department.
EXCLUSIONS GNDS 510/6.0; GNDS 530/3.0

GNDS 530/3.0 Directed Special Studies
In consultation with the Head of the Department, students arrange their reading with individual Gender Studies faculty, and are expected to write reports on their readings and to discuss them throughout the term with that faculty supervisor.
LEARNING HOURS 120 (9I;111P)
PREREQUISITE Level 3 or above and registered in a GNDS Major or Medial Plan or SXGD Plan or permission of the Department.
EXCLUSION(S) GNDS 510/6.0; GNDS 520/3.0

GPHY 101/3.0 Human Geography
The fundamentals of human geography including the meanings of place, the impacts of globalization, multiculturalism, population change and movement, environmental history and politics, cultural geography, issues of uneven resource distribution, the role of colonialism in the modern shape of the world, agricultural geography, and urban geography.
NOTE Field trip: estimated cost $30.GPHY
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (18S;18T;48O;36P)
EXCLUSIONS BISC 100/3.0

GPHY 102/3.0 Physical Geography and Natural Resources
This course introduces the major concepts studied in physical geography and natural resources. The processes and interrelationships between the atmosphere, hydrosphere, biosphere, and lithosphere, particularly at, or near the Earth's surface, are investigated to serve as a basis for understanding the nature and distribution of natural resources.
NOTE Field trip: estimated cost $30.
LEARNING HOURS 120 (36L;12T;48P)

GPHY 105/3.0 The Digital Earth: Geospatial Data and Earth Observation
A vast amount of geospatial data has now become publicly accessible through online tools and smartphones. This course provides a critical introduction to the sources of these geospatial data, and the techniques of their visualization and analysis. Students will, by the end of the course, be able to manipulate and analyze these data in GIS software.
NOTE GPHY 105/3.0 is an option course and will not be a prerequisite for entry into GPHY Plans as are GPHY 101/3.0 and GPHY 102/3.0.
LEARNING HOURS 114 (36L;78P)

GPHY 203/3.0 Water Resources and Management
Water resources are coming under increasing pressure due to rising levels of demand and pollution. This course examines dimensions of the world's need for this critical resource. Topics include water distribution and availability, water quality, different water uses and demands, water treatment, and approaches to water management and allocation.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *GPHY 103/3.0*.
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 204/3.0 Forests as a Global Resource
Forests are a critical global resource, containing significant biodiversity, regulating CO_2 in the atmosphere, and providing cultural and economic benefits to society. Yet forests are threatened by over-harvesting, fire, development and environmental change. This course examines the ecology, distribution, and sustainability of the world's forests.
LEARNING HOURS 120 (36L;30G;54P)
EQUIVALENCY *GPHY 104/3.0*.
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 207/3.0 Principles of Biogeography
An examination of ecological and earth system processes that affect the dynamics of organisms, their spatial patterns and their variability in time.
LEARNING HOURS 114 (36L;18Pc;12I;48P)
PREREQUISITE 3.0 units from GPHY 102/3.0; BIOL; GEOL or permission of the Department.

GPHY 208/3.0 Surface Processes, Landforms, and Soils
Explores the structure of, and physical processes responsible for the development of landforms and soils. Understanding these systems is directly relevant to environmental planning, hazard and risk assessment, geology, and surface processes on other planets. Topics include weathering, volcanic, tectonic, mass wasting, glacial, and fluvial processes.
NOTE Field trip: estimated cost $25.
LEARNING HOURS 120 (36L;36Lb;48P)
PREREQUISITE GPHY 102/3.0 or permission of the Department.

GPHY 209/3.0 Weather and Climate
The weather and climate system will be investigated to provide a background to interpret weather conditions and to understand broader climate and climate change phenomena. Topics include: atmospheric properties, energy and moisture exchanges, weather system evolution, precipitation, climate classification, and forecasting.
LEARNING HOURS 114 (36L;18Pc;60P)
PREREQUISITE GPHY 102/3.0 or permission of the Department.

GPHY 215/3.0 Field Studies in Physical Geography
This course will introduce students to field methods and techniques used in wide variety of physical geography and related environmental fields. The emphasis will be on hands-on application of field sampling, measuring and mapping approaches. Taught as a field camp prior to Fall term, or after the exam period in April.
NOTE Field trips estimated cost $500. Students will be housed off-campus at QUBS and fees include transportation, housing and meals.
LEARNING HOURS 120 (8O;40Oc;72P)
EQUIVALENCY *GPHY 307/3.0*.
PREREQUISITE 3.0 units from GPHY 207/3.0 or GPHY 208/3.0 or GPHY 209/3.0 or permission of the Department.

GPHY 227/3.0 Cities: Geography, Planning and Urban Life
The city from a geographical and planning perspective. Topics include origins of urbanism; mega; migrant, and global cities; urban competitiveness; land use planning and design; suburbanization and sprawl; new urban identities and culture; retailing transport; public space; private and temporary cities; urban poverty; politics and governance; sustainable urban futures.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (12L;18T;30O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 228/3.0 Geographies of the Global Political Economy
This course examines how geographers understand the global economic system. Topics include globalization, regional economic integration, transnational production and marketing strategies of firms, new patterns of consumption, the rise of the service economy, and work and employment in the new economy.
LEARNING HOURS 129 (36L;9G;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 229/3.0 Place, Space, Culture and Social Life
The role of place and space in understanding how social identities (gender, sexuality, race, nationality, class) are constructed and contested. Topics include the spaces and meanings of the body, home, work, leisure and consumption, cultural landscapes, constructions of nature, globalization and issues of knowledge, power and imperialism.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 240/3.0 Introduction to Qualitative Methods in Geography
An introduction to basic issues in research with human participants, and the qualitative methods commonly employed in such research in geography. Where relevant, students may be introduced to computer software used in qualitative research.
LEARNING HOURS 120 (36L;18Lb;66P)
PREREQUISITE GPHY 101/3.0 or GPHY 102/3.0 or BISC 100/3.0 or permission of the Department.
EXCLUSIONS BMED 270/3.0; SOCY 210/3.0

GPHY 242/3.0 Remote Sensing I: Remote Sensing of the Environment
The physical principles and practices of collecting, analyzing and interpreting various remote sensing data from the visible, infrared, and microwave regions of the electromagnetic spectrum are examined. In addition, the display, enhancement and interpretation of various digital remote sensing data, from airborne to satellite scales, is emphasized. Enrolment is limited.
LEARNING HOURS 120 (36L;24Lb;60P)
PREREQUISITE GPHY 101/3.0 or GPHY 102/3.0; GPHY 105/3.0; BISC 100/3.0, or permission of the Department.

GPHY 243/3.0 Geographic Information Science
An introduction to the basic principles, techniques and applications of Geographic Information Science. Students will learn concepts of Global Positioning Systems (GPS), georeferencing, vector and raster based models and the nature of geospatial data.
LEARNING HOURS 120 (36L;24Pc;60P)
PREREQUISITE (GPHY 101/3.0 or BISC 100/3.0 and GPHY 102/3.0) or (BIOL 102/3.0 and BIOL 103/3.0) or (GEOL 104/3.0 and GEOL 107/3.0) or permission of the Department.

GPHY 247/3.0 Introduction to Statistics
An introduction to the analysis of data from real life situations. Covers study design, descriptive and inferential statistics. Topics include probability, t-tests, regression, Chi-square tests, analysis of variance. Emphasis is in the foundation of statistical inference and practical application of statistical methods using statistical software.
LEARNING HOURS 126 (12L;18Lb;48O;48P)
PREREQUISITE GPHY 101/3.0 or GPHY 102/3.0 or BISC 100/3.0.0 or permission of the department.
EXCLUSIONS BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0

GPHY 250/3.0 The Geography of Canada
A regional examination of how economic, political, cultural, and environmental factors shape relationships between land and people in Canada. Emphasis on geographical patterns of development and on the analytical and historical roots of public policy.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 254/3.0 The Caribbean in a Globalizing World
The past, present and future role of the Caribbean in the world economy, with an emphasis on the colonial legacy, debt and dependency, the effects of neoliberal reform and the changing geographies, and patterns of uneven development created by increasingly transnational flows of capital, people and culture.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 257/3.0 The Geography of Middle America
The lands and peoples of Mexico, Central America, and the West Indies, emphasizing the historical factors that shape contemporary life in the region.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 258/3.0 The Geography of South America
The lands and peoples of South America, emphasizing how the colonial experience continues to affect contemporary life in the region.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above or permission of the Department.

GPHY 304/3.0 Northern and Arctic Environments
Advanced study of the physical geography of northern regions, emphasizing the Canadian Arctic.
LEARNING HOURS 126 (36L;6O;84P)
PREREQUISITE GPHY 102/3.0 or APSC 151/3.0 or permission of the Department.

GPHY 305/3.0 Applied Cold Regions Science
Examining key aspects of cold regions science and processes using field and geospatial techniques applied to real-world case studies. Hands-on application of cold regions science methods will be used to explore major themes related to cold region climates, glaciology, hydrology, permafrost, snow science and resource development.
NOTE Field trips will occur in a given semester with an estimated cost of $75.
LEARNING HOURS 129 (36L;24LB;9Oc;60P)
PREREQUISITE Level 3 and (GPHY 208/3.0 or GPHY 209/3.0), or permission of the Department.

GPHY 306/3.0 Natural Environmental Change
An overview of the causes and record of global and regional environmental change during the last 100,000 years. Topics include glaciation, ocean-atmosphere interactions, sea level change, climatic variability, vegetation dynamics and discerning between the impact of human activities and that of natural environmental forcing mechanisms.
LEARNING HOURS 126 (36L;6O;84P)
PREREQUISITE GPHY 207/3.0 or GPHY 208/3.0 or GPHY 209/3.0, or permission of the Department.

GPHY 309/3.0 Field School in Geography
This Field School explores the socio-political, cultural, and biophysical dimensions of human environment interactions. It examines how communities perceive and interact with their environments and how they are, in turn, impacted by change. Students will do readings, seminars, assignments, and participate in a Field School for up to four weeks.
NOTE Field School cost is dependent on location and duration in the field, to a maximum of $3000. Please refer to the Department website for further information.
LEARNING HOURS Learning Hours may vary. Please consult the Department for more information.
PREREQUISITE Level 3 or above and registration in a GPHY Plan or permission of the Department.

GPHY 310/3.0 Landscape Ecology
Study of the relationship between spacial pattern and ecological processes. Topics include spatial arrangement of ecosystems and its influence on the flow of energy, materials and biota; agents of pattern and change; methods and techniques for characterizing landscapes and detecting change; applications in resource conservation and management.
NOTE Field trips may apply in certain years; estimated cost $30.
LEARNING HOURS 120 (24L;24Lb;6O;66P)
EQUIVALENCY *GPHY 418/3.0*.
PREREQUISITE Level 3 and (GPHY 207/3.0 or [BIOL 201/3.0 and BIOL 202/3.0] or BIOL 200/3.0 or BIOL 111/3.0), or permission of the Department.

GPHY 312/3.0 Watershed Hydrology
The course examines the processes that govern the flow and dissolved load in surface waters. Assignments focus on hydrological and hydrochemical data analysis and problem solving. Field projects emphasize hydrological monitoring techniques and methods used to collect and analyze the chemical composition of water samples.
NOTE Field trips: estimated cost $50.
LEARNING HOURS 108 (36L;36Lb;36P)
PREREQUISITE GPHY 208/3.0 or GPHY 209/3.0 or permission of the Department.

GPHY 313/3.0 Glacier Processes and Dynamics
Examining key aspects of contemporary glacier systems including glacier-climate processes, the mechanics of ice flow, and glacier impacts on human activities. Student-led projects give insight into the variability of glacier response globally, while laboratory exercises focus on field-based and remote-sensing approaches to glacier monitoring.
NOTE Field trips may apply in certain years dependent on snow and ice conditions; maximum cost $75.
LEARNING HOURS 120(36L;36Lb;24O;24P)
PREREQUISITE Level 3 and GPHY 208/3.0 or GPHY 209/3.0 or permission of the Department.

GPHY 314/3.0 Climate Change
The study of historical and current climate change, projected future climates emphasizing the effects of global warming, impacts of climate change, and the role of humans as agents of climatic system change.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 3 or permission of the Department.

GPHY 315/3.0 Advanced Field Measurements and their Analysis
Introducing advanced techniques in environmental field measurements including the design and development of automatic weather stations and customized sensors, and geophysical techniques. Practical work involves the design and implementation of a field experiment, and an introduction to R programming as powerful tool for data analysis.
NOTES Field trips Maximum cost $500. Students will be housed off-campus at QUBS and fees include transportation, housing and meals.
LEARNING HOURS 120 (18L;36Lb;30Oc;36P)
PREREQUISITE Level 3 or above or permission of the department

GPHY 317/3.0 Soil, Environment and Society
Soils are a critical resource required by societies. Using a strong methodological approach, this course will examine the important biological, chemical, and physical properties of soils. The course will also explore critical soil-related issues facing society, including salinization, degradation from agriculture, climate change, and erosion.
NOTE Field trips: estimated cost $30.
LEARNING HOURS 120 (36L;36Lb;48P)
PREREQUISITE GPHY 208/3.0 or GPHY 209/3.0, or permission of the Department.

GPHY 318/3.0 Advanced Biogeography
An examination of the distributions of plants and animals on global, regional and local scales, their causes and significance.
NOTE Field trip: estimated cost $25.
LEARNING HOURS 116 (36L;8Oc;72P)
PREREQUISITE Level 3 and (GPHY 207/3.0 or [BIOL 201/3.0 and BIOL 202/3.0] or BIOL 200/3.0 or BIOL 111/3.0), or permission of the Department.

GPHY 319/3.0 Contemporary Energy Resources
Fossil and renewable energy resources are reviewed through a geographic lens. Energy supply and demand are discussed in terms of the global energy sector. The environmental, economic, and social impacts of conventional and renewable energy options are considered, as are policies used to drive a transition in our energy mix.
LEARNING HOURS 126 (36L;18G;36O;36P)
PREREQUISITE Level 3 in a GPHY Plan, or permission of the Department.

GPHY 320/3.0 Energy and Society
A broad overview of human history from the earliest hunter-gatherers through the Industrial Revolution as seen through the lens of energy. Considered will be methods of energy generation, and conversion, ranging from the human body to the internal combustion engine, and the interaction of these methods with other aspects of society and economy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above or permission of the Department.

GPHY 325/3.0 Maps and Society
A critical study of cartographic representation from the pre-modern era up to and including the political, social, military, and economics roles of maps and geospatial data in the contemporary world.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GPHY 327/3.0 The Geographical Imagination
Critical approaches to the role of the geographic, cultural and historical imagination in shaping landscapes, environments and society.
LEARNING HOURS 127 (36L;4G;12O;3Oc;72P)
PREREQUISITE GPHY 229/3.0, or 3.0 units in DEVS at the 200 level or above, or permission of the Department.

GPHY 330/3.0 Transportation Geography
The course provides a systematic examination of urban transportation in the context of general economic, social and spatial trends. Particular focus is placed on the role of the built environment in explaining travel behaviour. The aim is to provide a fair understanding of transportation planning and policy issues and explore potential solutions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department.

GPHY 332/3.0 Cities and Planning for Sustainable Development
Contemporary community planning and urban development from the perspectives of social sciences, planning and real estate development. Emphasis on understanding actors in the process and creating projects that are socially, environmentally and economically sustainable. Informed by international perspectives, but focused on Canadian cities.
NOTE Case Materials: Approximate $30.
NOTE Optional field trip may be undertaken in some years; approximate cost up to $300.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE GPHY 227/3.0 and (GPHY 228/3.0 or GPHY 229/3.0 or DEVS 230/3.0) or permission of the Department.

GPHY 336/3.0 Geography, the Environment and Human Health
Examines the relationship between human health and built, physical, and social environments. Focus is influence of local environmental conditions on population health outcomes within the North American urban context. Policy and programming options for improving local conditions are explored.
LEARNING HOURS 120 (36L;24I;24O;36P)
PREREQUISITE Level 3 and (3.0 units from BIOL 243/3.0; CHEE 209/3.0; COMM 162/3.0; ECON 250/3.0; GPHY 240/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0) or permission of the Department.

GPHY 337/3.0 Regional Development and Planning
Focus on regional planning and development processes, policies, and theories. Explore methods of regional analysis. Assessment of regional planning and development strategies and policy instruments used primarily in Canada with case examples from other international locations.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and (GPHY 228/3.0 or GPHY 227/3.0 or GPHY 247/3.0 or 3.0 units in DEVS at the 200 level or above), or permission of the Department.

GPHY 338/3.0 Urban Political Geography
The forces involved in shaping the political environment and spatial structure of urban areas. Emphasis on the significance of decisions concerning public goods in the distribution of income and equity within the city.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE 6.0 units from GPHY 227/3.0; GPHY 228/3.0; GPHY 229/3.0 or permission of the Department.

GPHY 339/3.0 Medical Geography
Current issues in disease ecology and health care delivery systems. Emphasis on patterns of incidence, cultural and environmental associations, spread and control of infectious diseases, comparisons of health care delivery systems, and accessibility to health services.
LEARNING HOURS 120 (36L;24I;24O;36P)
PREREQUISITE Level 3 and (3.0 units from BIOL 243/3.0; CHEE 209/3.0; COMM 162/3.0; ECON 250/3.0; GPHY 240/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0) or permission of the Department.

GPHY 341/3.0 Photogrammetry
An intensive introduction to the art and science of 3D measurement and mapping using photographs, with a particular focus on applications in GIS, Cartography, Cultural Heritage, Urban Planning, Geology and Engineering.
LEARNING HOURS 120 (36L;36Lb;48P)
EQUIVALENCY *CLST 351/3.0*.
PREREQUISITE Level 3 or permission of the Department.

GPHY 342/3.0 Remote Sensing II: Digital Image Processing
This course represents an extension of GPHY 242/3.0, with an in-depth examination of image processing techniques for information extraction. Topics include remote sensor technology, image enhancement, classification, change detection, radiometric and geometric correction and sources and applications of remote sensing data.
NOTE Enrolment limited to 40 students.
LEARNING HOURS 120 (24L;24Pc;72P)
PREREQUISITE GPHY 242/3.0 and GPHY 247/3.0 or permission of the Department.

GPHY 343/3.0 Applications of Geospatial Technology for Business
This course introduces the practical use of GIS in business and strategic planning decisions. Students will learn how to collect, visualize, and analyze spatial data to address many business, socio-economic, and demographic challenges from a spatial context and present solutions on maps for a wide range of business applications.
LEARNING HOURS 126 (24L;24Lb;24O;54P)
PREREQUISITE GPHY 243/3.0 or permission of the Department.

GPHY 344/3.0 Cartography and Computer Aided Design
An introduction to the principles of Computer Aided Design (CAD) for the creation, manipulation, and editing of plans and maps. Topics will explore the fundamentals of good map design, best practices for visualizing geographic data, digitizing and georeferencing historic maps and airphotos, and importing /exporting CAD drawings to/from GIS software.

PREREQUISITE Level 3 or permission of the Department.

GPHY 345/3.0 Spatial Analysis
An in-depth exploration of the spatial analysis techniques used in vector GIS. The analysis of geographic primitives of points, lines, areas and surfaces in the context of applications drawn from geography, biology, planning and related disciplines. Emphasis is placed on the use of current GIS software in a hands-on environment.
LEARNING HOURS 120 (24L;24Pc;24G;24O;24P)
PREREQUISITE GPHY 243/3.0 and (3.0 units from GPHY 247/3.0; ECON 250/3.0; KNPE 251/3.0; *PHED 251/3.0*; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0), or permission of the Department.

GPHY 346/3.0 GIS and Modelling for Environmental Applications
Study of the techniques of Geographic Information Systems and their applications in solving physical and environmental problems. Topics include data representation and models, spatial interpolation, raster-based analysis and modeling, surface models and terrain analysis, data visualization, temporal analysis, error and accuracy, and other algorithms and analytical procedures.
LEARNING HOURS 120 (24L;24Pc;24G;24O;24P)
PREREQUISITE GPHY 243/3.0 and (3.0 units from GPHY 247/3.0; ECON 250/3.0; KNPE 251/3.0; *PHED 251/3.0*; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0), or permission of the Department.

GPHY 347/3.0 Multivariate and Spatial Statistics
This course offers an introduction to the theory and application of multivariate statistics to geographical data. Topics include regression and correlation analysis, ANOVA, spatial autocorrelation and other spatial statistics as well as geostatistical operations in GIS software.
LEARNING HOURS 120 (24L;24Pc;24O;24P)
PREREQUISITE (3.0 units from GPHY 247/3.0; ECON 250/3.0; KNPE 251/3.0; *PHED 251/3.0*; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0).

GPHY 348/3.0 Application Design and Customization in GIS
An introduction to customization of GIS and database software with an emphasis on spatial analysis tool development for desktop and Web-based GIS. Students will learn concepts of user requirements analysis, software requirements preparation, interface and software design, and computer programming while they develop customized GIS applications.
LEARNING HOURS 120 (24L;24Pc;24G;24O;24P)
PREREQUISITE GPHY 243/3.0 or (3.0 units from GPHY 247/3.0; ECON 250/3.0; KNPE 251/3.0; *PHED 251/3.0*; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0), or permission of the Department.

GPHY 349/3.0 GIScience and Public Health
This course examines contemporary applications of geographic information science (GIScience) and geographic information system (GIS) in public health, including disease mapping, environmental hazards, spatial epidemiology, and problems of accessibility to and siting of health services.
LEARNING HOURS 120 (24L;24P; 72P)
PREREQUISITE GPHY 243/3.0 and GPHY 247/3.0 or permission of the Department.

GPHY 351/3.0 Geographies of Indigenous and Settler Relations
An overview of selected elements of the geographies of Aboriginal peoples in Canada with a focus on the relationship between Aboriginal peoples and their environments, urbanization and culture change, and colonialism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 and (6.0 units from GPHY 227/3.0; GPHY 228/3.0; GPHY 229/3.0) or (3.0 units at the 200 level or above in DEVS or GNDS), or permission of the Department.

GPHY 352/3.0 Gender and the City
Gender in relationship to the spatial organization of contemporary cities. Emphasis on the diversity of gendered experiences as they relate to the urban: housing, violence, social movements, work, and gender symbols.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (6.0 units from GPHY 227/3.0; GPHY 228/3.0; GPHY 229/3.0) or (3.0 units at the 200 level or above in GNDS), or permission of the Department.

GPHY 362/3.0 Human Migration
The movement of people across the surface of the earth from early times to the present, focussing on contemporary issues of immigration, refugees, human rights, social integration and barriers to integration including discussions of racism, citizenship, multiculturalism, and community infrastructure.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE GPHY 227/3.0 or GPHY 228/3.0 or GPHY 229/3.0, or permission of the Department.

GPHY 365/3.0 Geography, Development, and Environment in the 'Third World'
The geographical implications of the incorporation of the Third World into the global economy. Emphasis will be upon issues relating to both the physical and human environments in reference to development, ecological alteration, cultural change, and spatial readjustment.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE Level 3 or above and (6.0 units from GPHY 227/3.0; GPHY 228/3.0; GPHY 229/3.0) or (3.0 units at the 200 level or above in DEVS or GNDS) or (ENSC 103/3.0 or *ENSC 203/3.0*) or permission of the Department.

GPHY 368/3.0 Environments and Society
A critical evaluation of the changing relationships between nature and society.
LEARNING HOURS 127 (36L;4G;12O;3Oc;72P)
PREREQUISITE (6.0 units from GPHY 227/3.0; GPHY 228/3.0; GPHY 229/3.0) or (3.0 units at the 200 level or above in DEVS).

GPHY 370/3.0 Special Topics in Human Geography
Course offered by visiting faculty on Geography topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each academic year.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 in a GPHY Plan, or permission of the Department.

GPHY 371/3.0 Special Topics in Earth System Science
Course offered by visiting faculty on Geography topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each academic year.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 in a GPHY Plan, or permission of the Department.

GPHY 372/3.0 Special Topics in Geographic Information Science
This course provides intensive coverage of a topic in Geographic Information Science and will be offered periodically by visiting professors. Consult the Departmental homepage for details on specific course offerings each year.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 in a GPHY Plan, or permission of the Department.

GPHY 401/3.0 Honours Seminar in Human Geography I
Seminars offered by regular and visiting faculty on Geography topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each academic year.
NOTE Field trip fees may apply in certain years. See departmental webpage for more information. Cost will vary depending on location, but not likely to exceed $300 per year.
LEARNING HOURS 132 (36S;24Oc;72P)
PREREQUISITE Level 4 and (a GPA of 2.60 in 24.0 units in GPHY and registration in a GPHY Major or Medial [Arts] Plan).
EXCLUSION(S) GPHY 402/3.0; GPHY 403/3.0

GPHY 402/3.0 Honours Seminar in Human Geography II
Seminars offered by regular and visiting faculty on Geography topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each academic year.
NOTE Field trip fees may apply in certain years. See departmental webpage for more information. Cost will vary depending on location, but not likely to exceed $300 per year.
LEARNING HOURS 132 (36S;24Oc;72P)
PREREQUISITE Level 4 and (a GPA of 2.60 in 24.0 units in GPHY and registration in a GPHY Major or Medial [Arts] Plan).
EXCLUSION(S) GPHY 401/3.0; GPHY 403/3.0

GPHY 403/3.0 Honours Seminar in Human Geography III
Seminars offered by regular and visiting faculty on Geography topics related to their research interests. Consult the departmental homepage for further details of specific course offerings each academic year.
NOTE Field trip fees may apply in certain years. See departmental webpage for more information. Cost will vary depending on location, but not likely to exceed $300 per year.
LEARNING HOURS 132 (36S;24Oc;72P)
PREREQUISITE Level 4 and (a GPA of 2.60 in 24.0 units in GPHY and registration in a GPHY Major or Medial [Arts] Plan).
EXCLUSIONS GPHY 401/3.0; GPHY 402/3.0

GPHY 413/3.0 Water, Energy and Carbon Cycling in the Biosphere
The study of the interaction of the atmosphere with the surface in terms of radiative, heat, water, and trace gas fluxes.
NOTE Field trip fees may apply in certain years. See departmental webpage for more information. Cost will vary depending on location, but not likely to exceed $175 per year.
LEARNING HOURS 120 (36L;12Lb;72P)
PREREQUISITE Level 4 and (6.0 units from MATH at the 100 level or above) and (6.0 units from BIOL or CHEM or PHYS at the 100-level or above) and (a GPA of 1.90 in 30.0 units from GPHY) and (registration in a GPHY Major [Science] or EGPY Specialization Plan).

GPHY 415/6.0 Advanced Analysis of Earth Surface Processes
A fourth year Honours capstone project course exploring a contemporary geographic issue by integrating advanced knowledge and skills in physical geography and geographic information science. Focus will be on integration of field and laboratory methods, and how they are used to explore contemporary geographic or environmental issues.
NOTE Field trips within the Province of Ontario during the year. Costs will vary depending on location, but not likely to exceed $175 per year.
LEARNING HOURS 240 (12L;12S;36Lb;12G;24Oc;144P)
PREREQUISITE Level 4 and (6.0 units from MATH or STAT at the 100-level or above) and (6.0 units from CHEM or PHYS at the 100-level or above) and (a GPA of 1.90 in 30.0 units from GPHY) and (registration in a GPHY Major [Science] or EGPY Specialization Plan).

GPHY 417/3.0 Land-Use Change in the Earth System
Changes in land use and land cover represent significant changes to the dynamics of the earth system. This course will explore the methods used to quantify rates of land-use and land-cover change, and also the biophysical consequences of these changes. The goal of the course is to develop a framework for evaluating the biophysical and societal trade-offs associated with land-use decisions.
NOTE Field trip fees may apply in certain years. See departmental webpage for more information. Cost will vary depending on location, but not likely to exceed $175 per year.
LEARNING HOURS 131 (30L;41Oc;60P)
PREREQUISITE Level 4 and (6.0 units from MATH at the 100 level or above) and (6.0 units from BIOL or CHEM or PHYS at the 100-level or above) and (a GPA of 1.90 in 30.0 units from GPHY) and (registration in a GPHY Major [Science] or EGPY Specialization Plan).

GPHY 501/3.0 Special Studies in Geography
Open to Level 4 students who have an average of A- or greater in those courses which form their concentration. Special consideration will be given to requests from students with an average of B or more in those courses which form their concentration. The student will arrange a program of study with a specific member of the Department.
LEARNING HOURS 120 (24I;96P)
PREREQUISITE Level 4 and a (GPA of 3.50 in 24.0 units in GPHY) and (registration in a GPHY Major or Medial Plan or EGPY Specialization Plan) and (consent of a supervising member of the Department) or by permission of the Departmental Undergraduate Committee.
EXCLUSION(S) GPHY 502/3.0; GPHY 503/6.0

GPHY 502/3.0 Research and Thesis in Geography I

Research project in Geography supervised by a member of the faculty. Research involving the amount of work associated with other senior 3.0 unit courses will be done as GPHY 502/3.0.

NOTE Admission is subject to the availability of supervisors.

LEARNING HOURS 120 (24I;96P)

PREREQUISITE Level 4 and a (GPA of 3.50 in 24.0 units in GPHY) and (registration in a GPHY Major or Medial Plan or EGPY Specialization Plan) and (consent of a supervising member of the Department) or by permission of the Departmental Undergraduate Committee.

EXCLUSION(S) GPHY 501/3.0; GPHY 503/6.0

GPHY 503/6.0 Research and Thesis in Geography II

Research project in Geography supervised by a member of the faculty. Research involving the amount of work associated with larger research projects with work comparable to a 6.0 unit course (including work completed during summer) may be done as GPHY 503/6.0.

NOTE Admission is subject to the availability of supervisors.

LEARNING HOURS 240 (48I;192P)

PREREQUISITE Level 4 and a (GPA of 3.50 in 24.0 units in GPHY) and (registration in a GPHY Major or Medial Plan or EGPY Specialization Plan) and (consent of a supervising member of the Department) or by permission of the Departmental Undergraduate Committee.

EXCLUSION(S) GPHY 501/3.0; GPHY 502/3.0

GREK 112/6.0 Introductory Greek
Fundamentals of grammar, syntax and etymology, for students with no or little knowledge of **Ancient** Greek; provides sufficient background to read Plato, Euripides as well as the New Testament.
NOTE Normally not open to students with 4U Greek.
LEARNING HOURS 276 (72L;24T;180P)

GREK 208/6.0 Intermediate Greek
Review of grammar, and developing facility in translation, study of literary content and background of authors.
NOTE A student with 4U Greek may alternatively use this as a prerequisite and should contact the Department for permission to register in the course.
LEARNING HOURS 282 (72L;210P)
PREREQUISITE GREK 112/6.0.

GREK 321/3.0 Greek Prose
Selected passages of Greek prose, usually drawn from oratory, history, and philosophy, read in the original Greek and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with GREK 421/3.0.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE A grade of C in GREK 208/6.0 or permission of the Department of Classics.

GREK 322/3.0 Greek Verse
Selected passages of Greek verse, usually drawn from works of epic, lyric, elegy, and drama, read in the original Greek and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with GREK 422/3.0.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE A grade of C in GREK 208/6.0 or permission of the Department of Classics.

GREK 421/3.0 Advanced Greek Prose
Selected works of Greek prose, usually drawn from oratory, history, and philosophy, read in the original Greek and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with GREK 321/3.0.
LEARNING HOURS 141 (36L;105P)
PREREQUISITE A grade of C in GREK 321/3.0 or permission of the Department of Classics.

GREK 422/3.0 Advanced Greek Verse
Selected works of Greek verse, usually drawn from works of epic, lyric, elegy, and drama, read in the original Greek and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with GREK 322/3.0.
LEARNING HOURS 141 (36L;105P)
PREREQUISITE A grade of C in GREK 322/3.0 or permission of the Department of Classics.

GREK 430/6.0 Research Course
Detailed study of certain aspects of Greek Literature and history through directed readings and essay assignments.
LEARNING HOURS 240 (24I;216P)
PREREQUISITE A minimum GPA of 1.90 in 6.0 units from GREK at the 300-level.

GREK 591/0.0 General Examination

GRMN 101/3.0 Beginner's German I
This course is for students with no previous knowledge of German. The course concentrates on the basic language skills (listening, reading, writing and speaking) and introduces elements of German culture as recorded in its customs, history and literature.
LEARNING HOURS 120 (36L;120;72P)
ONE-WAY EXCLUSION May not be taken with or after GRMN 102/3.0; GRMN 201/3.0; GRMN 202/3.0.

GRMN 102/3.0 Beginner's German II
This course is for students with a limited background in German. The course concentrates on the basic language skills (listening, reading, writing and speaking) and introduces elements of German culture as recorded in its customs, history and literature.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE A grade of C in GRMN 101/3.0 or permission of the Department of Languages, Literatures and Cultures.
ONE-WAY EXCLUSION May not be taken with or after GRMN 201/3.0; GRMN 202/3.0.

GRMN 201/3.0 Intermediate German I
A continuation of GRMN 102/3.0 aimed at expanding basic language skills (listening, reading, writing and speaking). Students will review and deepen their knowledge of grammatical structures through exposure to a variety of German-language media and culture.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE A grade of C in GRMN 102/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 202/3.0 Intermediate German II
A systematic review of grammatical structures with the aim of enhancing students' linguistic competence with particular emphasis on written communication.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE A grade of C in GRMN 201/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 203/3.0 German Conversation and Culture
An intermediate conversation course designed to advance skills in oral communication and cultural competence, supported by grammar instruction and written assignments. Students will engage with different media sources, including German-language television, film, internet, print media and music.
LEARNING HOURS 120 (36L;12T;84P)
PREREQUISITE A grade of C in GRMN 102/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 306/3.0 Business German I: German in the Workplace
Designed for students at the intermediate-advanced level. The course aims at developing communicative competence in the fields of business, commerce, industry, and German in the workplace, with specific emphasis on oral communication.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 307/3.0 Business German II: German in the Workplace
Designed for students at the intermediate-advanced level. The course aims at developing communicative competence in the fields of business, commerce, industry, and German in the workplace, with specific emphasis on approaches to intercultural communication.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 308/3.0 Topics in Cultural History I
Intensive development of language skills (reading, writing, speaking, listening) in the course of a general introduction to the cultural history of the German-speaking countries up to and including the nineteenth century.
LEARNING HOURS 120 (36L;12T;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 309/3.0 Topics in Cultural History II
Intensive development of language skills (reading, writing, speaking, listening) in the course of a general introduction to the cultural history of the German-speaking countries in the twentieth and twenty-first centuries.
LEARNING HOURS 120 (36L;12T;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 311 German Cultural through Stories- 18th & 19th Century
An introduction to reading, discussing and writing about German literary texts in German. Major periods, authors, and texts of the 18th and 19th centuries will be examined in their cultural and historical contexts. Students will be exposed to different genres: excerpts from novels and dramas, as well as short stories, poems and film adaptations.
LEARNING HOURS 120 (36L;12T;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 312/3.0 German Culture through Stories – 20th & 21st Century
An introduction to reading, discussing and writing about German literary texts in German. Major periods, authors, and texts of the 20th century will be examined in their cultural and historical contexts. Students will be exposed to different genres: excerpts from novels and dramas as well as short stories, poems and film adaptations.
LEARNING HOURS 120 (36L;12T;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 315/3.0 Work and Study in Germany
Students who have participated in the Werkstudentenprogramm (or an equivalent program or internship) may obtain academic credit on their return by presenting, by the end of the fall term of the same year, a 2,500 word essay about their experiences and submitting to a 90 minute written and a 20 minute oral exam, all in the German language.
NOTE Participation in the Werkstudentenprogramm is required.
LEARNING HOURS 120 (120P)
PREREQUISITE Permission of the Department of Languages, Literatures and Cultures.

GRMN 317/3.0 Contemporary Germany through Media and News
This course's aim is threefold: to improve students' comprehension and production of oral and written German through practice in reading, writing, listening and speaking; to increase their knowledge of contemporary issues in Germany, with a special focus on transnational perspectives; and to better their analytic skills and media literacy.
LEARNING HOURS 120.5 (36S;12.5G;72P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.

GRMN 419/3.0 Roots of Fascism: Resistance to Liberalism in the 19th Century
A survey of various currents of thought from 19th-century Europe that illustrate conservative discomfort with industrial society and help to make the outbreak of fascism understandable after 1918. The course will distinguish between conservative, nationalist, aesthetic, and religious trends, illustrated by relevant readings from different countries.
NOTE Taught in English together with LLCU 319/3.0. Students in a GMST Plan will submit written assignments, tests, and examinations in German. Normally, students will read German texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) LLCU 319/3.0.

GRMN 420/3.0 Fascism in Europe from Napoleon to Hitler
An introduction from a cultural perspective to the growth of the fascist mentality in Europe and the emergence of fascist regimes. The course will treat Italian Fascism and the Third Reich as part of the broader conservative and nationalist challenge to liberalism.
NOTE Taught in English together with LLCU 320/3.0. Students in a German Plan will submit written assignments, tests and examinations in German. Normally students will read German texts in the original.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *INTS 320/3.0.*
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) LLCU 320/3.0; *INTS 320/3.0*

GRMN 425/3.0 Is Less More? Historic and Current Cultural Aspects of Minimalism and Reduction
The current surge of minimalist movements (e.g. de-cluttering) offers insight into the texture of present and past cultures. The course will explore spiritual, health related, economic and aesthetic aspects of reductionist movements concerning nutrition, lifestyle, housing, design and exercise.
NOTE This course is taught concurrently with LLCU 325/3.0.LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission from the Department of Languages, Literatures and Cultures
EXCLUSIONS LLCU 325/3.0. GRMN 425/3.0 is taught concurrently with LLCU 325/3.0 with the same instructor/same room. Difference in level because students in GRMN 425/3.0 will complete their assignments and tests in German language, while LLCU 325/3.0 will complete their assignments and tests in English.

GRMN 426/3.0 Film in the New Europe
This course will investigate how the new Europe and film shaped each other. European film is our starting point for investigating the connections between work and art. Topics will include: urban space; (post- and para-); socialist societies; border crossings, especially gendered labour and cultural flows.
NOTE Taught in English together with LLCU 326/3.0. Students in a German Plan will submit written assignments, tests and examinations in German. Normally, they will read German texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS LLCU 326/3.0.

GRMN 427/3.0 Sickness and Health – Cultural Representations in Medical Discourse
Investigates cultural images and metaphors of disease, with an emphasis on the evolution of normalcy. We will study representations of disease (photography, museum exhibit, literary text), their historic development, and theoretic reflections on media with respect to both historical and contemporary notions of sickness and health.
NOTE Taught in English together with LLCU 327/3.0. Students concentrating in German will submit written assignments, tests and examinations in German. Normally students will read German texts in the original.
LEARNING HOURS 114 (36L;6O;72P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures
EXCLUSIONS LLCU 327/3.0

GRMN 429/3.0 Uncanny Encounters: Narrative Analysis of the Fantastic Genre
The course offers an overview of the related genres of the Fantastic, the Fairy Tale, Dystopia, Science Fiction, and Horror. Examples will include popular works such as the Twilight Saga, Harry Potter, and/or The Hunger Games, but also traditional texts by Hoffman and Kafka. Parallel to the fictional works, the course offers theoretical analysis.
NOTE Taught in English together with LLCU 329/3.0. Students in a GMST Plan will submit written assignments, tests and examinations in German. Normally, students will read German texts in the original.
LEARNING HOURS 120 (12L;24S;12G;24O;48P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures
EXCLUSIONS LLCU 329/3.0; ENGL 273/3.0

GRMN 433/3.0 Conflict and Culture: Literature, Law and Human Rights
An examination of international discourses on conflict and resolution, including theories of reconciliation, human rights, and international law, as portrayed in various media (fiction, theatre and film) and diverse cultural contexts (e.g. ancient Greece, Germany, South Africa and Canada).
NOTE Taught in English together with LLCU 322/3.0. Students in a GRMN Plan will submit written assignments, tests, and examinations in German. Normally, they will read German texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in GRMN 202/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS LLCU 322/3.0.

GRMN 531/3.0 Directed Special Studies I
Reading courses enabling individual study of a particular author or problem in greater depth, the specific topic to be selected in consultation with the Head of Department. An essay of appropriate length may, after consultation, be submitted in either course in lieu of a final examination.
LEARNING HOURS 120 (120P)
PREREQUISITE Permission of the Department of Languages, Literatures and Cultures.

GRMN 532/3.0 Directed Special Studies II

Reading courses enabling individual study of a particular author or problem in greater depth, the specific topic to be selected in consultation with the Head of Department. An essay of appropriate length may, after consultation, be submitted in either course in lieu of a final examination.

LEARNING HOURS 120 (120P)

PREREQUISITE Permission of the Department of Languages, Literatures and Cultures.

HEBR 190/6.0 Introduction to Modern Hebrew
For students with no (or a minimal) background in Hebrew. Introduces elements of grammar and vocabulary of modern Hebrew.
PREREQUISITE Permission of the instructor.

HEBR 192/3.0 Introductory Biblical Hebrew
Provides a basic introduction to reading and understanding biblical Hebrew prose. No prior knowledge of Hebrew assumed.
NOTE This course replaces the first semester of HEBR 191/6.0.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *HEBR 191/6.0*.
EXCLUSION(S) *HEBR 191/6.0*

HEBR 193/3.0 Classical Hebrew Fundamentals
Focus is on reading prose portions with comprehension in biblical texts. Certain extra-biblical second Temple literature may also be read (e.g., texts from the Dead Sea Scrolls).
NOTE This course replaces the second semester of HEBR 191/6.0.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *HEBR 191/6.0*.
PREREQUISITE HEBR 192/3.0 or permission of the instructor.
EXCLUSION(S) *HEBR 191/6.0*

HEBR 292/3.0 Intermediate Biblical Hebrew
Readings in biblical Hebrew prose and poetry.
PREREQUISITE HEBR 193/3.0 or *HEBR 191/6.0* or permission of the instructor.

HEBR 294/3.0 Intermediate Modern Hebrew I
An extensive grammar review with practice in speaking, writing, and translation, based on the reading of texts by modern Hebrew writers. HEBR 295/3.0, when offered, is a direct continuation of HEBR 294/3.0.
PREREQUISITE HEBR 190/6.0 or permission of the instructor.

HEBR 295/3.0 Intermediate Modern Hebrew II
An extensive grammar review with practice in speaking, writing, and translation, based on the reading of texts by modern Hebrew writers. HEBR 295/3.0, when offered, is a direct continuation of HEBR 294/3.0.
PREREQUISITE HEBR 294/3.0 or permission of the instructor.

HEBR 301/3.0 Special Topics in Hebrew
Specialized study, as circumstances permit, of a particular author, genre, theme, movement, literary form or some combination of these elements. Course details to be announced on website.
PREREQUISITE HEBR 294/3.0 or permission of the instructor.

HEBR 393/3.0 Reading Modern Hebrew Literature
Selections from current Israeli media including music, newspapers and television, as well as from modern Hebrew prose and poetry (e.g., Ahad Haam, Bialik, Tchernichowski, Agnon, Amichai, Oz, Yehoshua). The selections are studied in Hebrew; written assignments may be submitted in English.

HEBR 502/3.0 Directed Reading in Hebrew
Directed Hebrew reading of material not covered in other courses, appropriate to the student's level.
PREREQUISITE Permission of the instructor or the Program Director.

HIST 104/3.0 Pre-Confederation Canada: A History of the Present
This course is a critical survey of the main social, political, and economic developments in pre-Confederation Canadian history. There are weekly lectures by the course instructor, small seminar discussions run by teaching fellows, and self-directed historical research projects.
LEARNING HOURS 120(18L; 18S; 12O; 72P)
EXCLUSIONS HIST 124/6.0; HIST 260/6.0; HIST 279/3.0; HIST 278/3.0

HIST 105/3.0 Post-Confederation Canada: A History of the Present
Beginning with the post-Confederation period, this course is a critical survey of the main social, political, and economic developments in the history of modern Canada. There are weekly lectures by the course instructor, small seminar discussions run by teaching fellows, and self-directed historical research projects.
LEARNING HOURS 120(18L; 18S; 12O; 72P)
EXCLUSIONS HIST 124/6.0; HIST 260/6.0; HIST 279/3.0; HIST 278/3.0

HIST 106/3.0 The Making of Modern Europe
This course charts the processes, events, and ideologies that created modern Europe and key parts of the modern world order from ca. 1650 to ca. 1950, notably political revolution and changing notions of citizenship; the emergence of global capitalism and consumerism; colonialism; fascism and communism; and world war.
LEARNING HOURS 120(24L;12S;12O;72P)
EXCLUSIONS HIST 125/6.0

HIST 108/3.0 Early Globalization: Contact, Conflict, Pandemics
This course will focus on early globalization. We begin with the river valley civilizations, such as Mesopotamia and Egypt, and stop around the mid-1700s. The course is divided thematically into different processes of globalization. Some of the themes include Mongol conquests, the Silk Road, Black Death, and Crusades.
LEARNING HOURS 120(24L;12S;12O;72P)
EXCLUSIONS HIST 122/6.0

HIST 109/3.0 War and Revolution in the Modern World
Changes in the world order and in the day-to-day lives of many ordinary people have followed wars and revolutions, from the Industrial Revolution to the ongoing militarized policing and the Black Lives Movement. This course is a survey of these transformative forces in World History.
LEARNING HOURS 120(24L;12S;12O;72P)
EXCLUSIONS HIST 122/6.0

HIST 121/6.0 The Intellectual Origins of the Contemporary West
An introduction to European intellectual history from the ancient world to the present. Concentration is on the analysis of primary sources and ideas in their historical contexts. The course offers weekly introductory lectures followed by discussion of source material in small tutorial groups where the objective is maximum student participation.
LEARNING HOURS 240 (36L;36S;168P)

HIST 122/6.0 The Making of the Modern World
A thematic introduction to world history from prehistoric times to the present, with particular emphasis on the changing balance of power between regions of the globe and the contributions of the peoples of Africa, Asia, Oceania and the Americas to modernity.
LEARNING HOURS 240 (48L;24S;24O;144P)

HIST 124/6.0 Canada: A History of the Present
An historical survey of the liberal, capitalist, and multicultural democracy we now call Canada. Through lectures, seminars, and the analysis of historical texts and heritage sites, the course explores the social-political struggles over indigeneity and race, class and colonialism, gender and sexuality, which continue to shape contemporary Canada.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (36L;36S;24O;144P)
EXCLUSION(S) HIST 260/6.0; HIST 279/3.0; *HIST 278/3.0*.

HIST 125/6.0 The Evolution of Modern Europe
A survey of Western and Central Europe and Great Britain from about 1750 to 1950. The focus is on the revolutions which produced modern Europe, notably the political revolutions (1789 and 1848), industrialization, urbanization, population growth, secularization, the rise of new classes, and changes in ideologies and popular attitudes.
NOTE Also offered online. Consult Arts and Science Online.

HIST 200/3.0 India and the World
This course examines the history of India as a series of contacts with the rest of the world. Topics include Roman trade in ancient India, the Portuguese, Turkish, and Mughal empires, Gandhi in South Africa, and South Asian diasporas in Europe and North America. Course materials include histories, travel accounts, court chronicles, medical treatises, literature, and film.
NOTE Also offered online. Consult Arts and Science Online.

HIST 201/3.0 Europe, 1572-1815
A survey of the social, cultural, economic, political and intellectual life of Europe from the French Wars of Religion to the Age of Napoleon. Topics will include religious warfare, the Scientific Revolution, state building, economic transformation, family life, popular culture, the French Revolution, and the Napoleonic Wars.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

HIST 205/3.0 The Atlantic World
This course explores the interconnected nature of the Atlantic World between 1492 and 1860, and breaks away from traditional emphases on the nation-state and other constructed boundaries. Topics will include migration, imperial rivalries, plantation economies, systems of labor, resistance, race, class, gender, religion and ideologies of revolution.
LEARNING HOURS 136 (36L;4G;96P)
PREREQUISITE Level 2 or above.

HIST 206/3.0 The United States in the Gilded Age and Progressive Era, 1868-1920
An introduction to the history of the United States during the turbulent period from 1868 until 1920. Topics may include industrialization, reform movements, mass consumption, corporations, imperialism, immigration, urbanization, the rise of segregation, agricultural transformation, art, and literature.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 207/3.0 Global Indigenous Histories
A survey of various historical case studies that will explore the causes, conflicts, and consequences that have occurred wherever indigenous peoples have encountered colonizing invaders. Significant questions will include who is Indigenous? who is not?, and can one speak of a global indigenous history?
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 130 (2T;25G;2O;101P)
PREREQUISITE Level 2 or above.

HIST 208/3.0 Introduction to Themes in Canadian History I
An interdisciplinary course in which the Canadian nation state will be examined from a geographic, historical, political, cultural and economic perspective, with particular attention being paid to the First Nations and linguistic minorities.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 209/3.0 Introduction to Themes in Canadian History II
An interdisciplinary course in which the Canadian nation state will be examined from a geographic, historical, political, cultural and economic perspective, with particular attention being paid to ethnic and racial relations, national identity and cultural icons.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 210/3.0 The History of Sexuality in Canada
An overview of Canada's sexual past. Introduces historiographical debates and theoretical approaches to the history of sexuality. Attentive to race, class, and gender, the course employs sexuality as a prism through which to view the operations of power in Canadian history.

LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE Level 2 or above.

HIST 211/3.0 The Cold War
This course will explore the origins of the struggle between the postwar superpowers, the United States and the Soviet Union; the changing nature of their rivalry, and the way other nations were drawn into the conflict. It considers the Cold War from Western, Soviet, and various global perspectives.
NOTE Also offered online. Consult Arts and Science Online.

HIST 212/3.0 Experiential Learning in Historical Practice
Offers credit for non-academic work in historical practice. Examples include but are not limited to work in museums, archives, historic sites, NGOs, etc. Several internships are negotiated and advertised by the Department. Student-initiated proposals will also be considered. After the work has been completed, a ten-page report is required.
NOTE This course may be taken only once during a student's degree program.
LEARNING HOURS 130 (130Oc)
PREREQUISITE Level 2 or above and permission of the Department.
EXCLUSION(S) HIST 501/6.0, HIST 502/3.0.

HIST 213/6.0 Comparative Public Policy
Examines the rise of the welfare state since 1945 in North America and Western Europe. Topics include broad trends like deindustrialization, globalization, the rise of inequality, and social mobility. Specific policies discussed concern health care, pensions, unemployment, families, taxation, immigration, higher education, and public housing.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 253/3.0; *HIST 240/6.0 (2013-14)*.

HIST 214/3.0 Food in Global History
This online course will attempt to study aspects of global history using food as a central theme. We begin from the reflection that food has successfully transcended political and cultural boundaries in the global past, and it provides a promising path for interrogating socio-economic and cultural issues in transnational contexts.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 126 (54O;72P)
PREREQUISITE Level 2 or above.

HIST 215/3.0 Sport and the Spectacle of Violence from Antiquity to the Renaissance
Sports and spectacles of violence, from Ancient Greek athletic contests and Roman gladiatorial combat to jousts, hunts, executions, and mock battles of Medieval and Renaissance Europe. Exploring ruins of buildings, texts, and images illuminate such issues as gender roles, social and political functions of violence, eroticism, and animal cruelty.
LEARNING HOURS 114 (36L;36O;42P)
PREREQUISITE Level 2 or above.

HIST 216/3.0 U.S. Civil War and Reconstruction
The Civil War has been the defining moment in American history. This course examines the political, cultural and social origins of the conflict, experiences of the war itself for both soldiers and civilians, studies the unfinished revolution of Reconstruction, and considers the legacy of the Civil War and Reconstruction in the contemporary US.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 304/6.0.

HIST 218/3.0 Byzantium
An introduction to the fabled world of Byzantium. The course surveys key aspects of Byzantine political history, society and culture. It traces the transformation of the empire from its origins in third century Rome into the 'other' middle ages of the Eastern Mediterranean and the Balkans ending with the fall of Constantinople in 1453.
LEARNING HOURS 127 (36L;91P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 301/6.0.

HIST 219/3.0 "Canada": The History of an Idea
A course exploring the many meanings of "Canada", "Canadian", and "Canadien" from the 1300s to today. Asking "What is Canada?" the course is a historical overview giving particular attention to the political, demographic, ethnological and colonial changes that altered these definitions over time and what/who the name refers to.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 220/3.0 Jews on Film
A history of the film industry from a Jewish perspective. Has Hollywood's Jewish roots had a discernible impact on content? How has anti-Semitism affected the way in which Jews and Jewish issues were represented on screen? Related subjects also covered in this course: radio, television, and comic books.
LEARNING HOURS 120 (36L;84P)
EXCLUSION No more than 3.0 units from HIST 220/3.0 and HIST 244/3.0 (Topic Title: Jews on Film)
EQUIVALENCY *HIST 354/4.5*
PREREQUISITE Level 2 or above.

HIST 221/3.0 Jewish and World Civilizations (until 1492)
A thematic-chronological history of Jews; political, social, religious and cultural interactions with the ancient near east, Hellenism, Rome, Christians, and Muslims; the biblical background; the rise of rabbinic Judaism and its opponents; communal life; gender; Diaspora cultures.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 222/3.0 Jewish and World Civilizations (since 1492)
The resettlement of Jews in Europe; modernization of Jewish life and culture and resistance to it in Western and Eastern Europe, North America, Palestine, Middle East, and State of Israel; heresy, political emancipation, developments in antisemitism, enlightenment, secularization, Zionism, radicalism, modern religious movements.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 224/3.0 Religion in Canadian Francophone Communities
This course aims to introduce students to the socio-cultural and religious realities of French-language communities in Canada, from the 19th century to today. Ce cours introduit les étudiants aux réalités socio-culturelles et religieuses des communautés de langue française au Canada, du 19e siècle à nos jours.
NOTE This course can be taken in either French or English.
NOTE Also offered online. Consult Arts and Science Online.
PREREQUISITE Level 2 or above.

HIST 225/3.0 The Early Middle Ages
An introduction to Medieval Europe from the fall of Rome to the 11th century including the history of the Church, monasticism, the conversion of Europe and Carolingian Empire. The course will cover the disintegration of the Roman Empire and the subsequent emergence of new kingdoms and social structures.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 250/6.0.

HIST 226/3.0 The Later Middle Ages
An introduction to the main themes of the history of the Latin West between the 11th and 15th centuries including changes in the economy, society, religion, culture, and politics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 250/6.0.

HIST 227/3.0 The Rise of Consumer Society
This course reconstructs a new phase in humanity's relationship with nature, as urbanized societies in certain parts of the world began to rely on materials and products that were grown, refined, or manufactured across the seas. Lectures illustrate how early modern consumerism reshaped global connections, culture, and interpersonal relations.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 228/3.0 Global History of Pandemics
Choosing from the case studies of the bubonic plague, smallpox, influenza, cholera, tuberculosis, and AIDS, this course will help us understand how the history of pandemics is crucial to understanding the major turning points in global history, and how diseases can serve as a useful lens to understand the major currents of sociocultural history.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 241/3.0 Issues in History
Lecture course on a selected historical issue. Subject changes from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 242/3.0 Issues in Canadian History
Lecture course on a selected historical issue. Subject changes from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 243/3.0 The Crusades
A general introduction to the history of the Crusades and holy war in the medieval period. Western, Muslim and Byzantine perspectives will be considered.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 2 or above.
ONE-WAY EXCLUSION May not be taken with or after HIST 430/6.0; HIST 443/4.5; HIST 444/4.5

HIST 244/3.0 Selected Topics in History
Lecture course on a selected historical issue. Subject changes from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 120 (36L;84P)

HIST 245/3.0 Imperial Russia
A survey of Russian history from the reign of Peter the Great to the Russian Revolution of 1917. Developments in cultural and intellectual history will be highlighted. Particular emphasis will be placed on debates over Russia's relationship with the West and Westernization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 246/3.0 The Soviet Experiment
An introduction to the history of the Soviet Union from its origins in the Revolution of 1917 to its collapse in 1991. This course examines and assesses the Bolshevik attempt to found a new social, economic and political order and to create a new man and woman in the process. Particular attention will be devoted to the policies and practices of the state as well as to the experiences of individual Soviet citizens.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE Level 2 or above.

HIST 252/3.0 Africa in the Modern World
An examination of Africa's involvement in modern world history. Course covers material from the slave trade to the crumbling of European empires. Major topics include: Pre-colonial African states, slavery, imperialism, the colonial state, African protest and resistance, and women's issues, among other topics.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 253/3.0 History of Public Policy
An introduction to the history of social welfare and public policy in Western Europe and North America. Topics include health care and public assistance; employment, pension and education policy; economic and urban planning. A major theme of the course is the emergence and development of civil, political, economic and social 'rights'.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 213/6.0; *HIST 240/6.0 (2013-14)*

HIST 254/3.0 Women and Gender in 20th Century Canada
This course explores the diverse experiences of women in Canada, as well as how the social construction of gender shaped 20th century Canadian history. It will challenge the idea of a homogeneous "women's history" in Canada, and examine how women's experiences varied by class, race, ethnicity, religion, sexuality, and other kinds of difference.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above.

HIST 255/3.0 Renaissance and Reformation Europe
A survey of the social, cultural, political and intellectual life of Europe in the Renaissance and Reformation. Topics to be discussed include: humanism, secularism, printing, and exploration; war and the early modern state; prophecy, heresy, and dissent; popular culture; sex, marriage, and family life; witch hunts, panics, and magic; and the impact of the Reformation and the Counter Reformation.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 2 or above.

HIST 257/3.0 Environmental History
A global survey of the effects of human activity on our physical surroundings and vice versa, in pre-agricultural, agricultural and industrial/agricultural societies. The course will be organized topically and themes will include the relevant problems of historical method, and the history of human attitudes to nature.
PREREQUISITE Level 2 or above.
EXCLUSION(S) ENSC 200/3.0

HIST 258/3.0 Slavery in North America from the Colonial Era to 1865
Examines the history of slavery in the United States and Canada from the colonial era to the mid nineteenth-century. Various approaches will be emphasized.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 259/3.0 Islamophobia: Crusades to the Present
A survey history of anti-Muslim prejudice and its relationship to patterns of persecution and exclusion in European societies from medieval and early modern crusade, expulsion and forced conversion to modern transformations and manifestations of Islamophobia, racism, antisemitism, and anti-immigrant movements.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 or above.
EXCLUSION No more than 1 course from HIST 259/3.0 and *HIST 240/6.0* (Topic Title: Islamophobia)

HIST 260/6.0 Canada from the Conquest to the Present
An introduction to some of the major themes in the social, cultural, economic and political history of Canada.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 260 (144O;120P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 104/3.0; HIST 105/3.0; HIST 124/6.0; HIST 279/3.0; *HIST 278/3.0*

HIST 263/3.0 War in the Twentieth Century: Myths and Reality
A blended online/classroom course that will introduce students to armed forces in modern history, and how they relate to the societies they function within and against.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (12L;24G;12O;72P)
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 322/6.0

HIST 267/3.0 Modern Middle East

An introduction to the multi-faceted history and cultural diversity of North Africa and Southwest Asia, a region stretching from Morocco to Afghanistan. Using a variety of sources including historical documents, films, music and literature, the course explores the social coordinates, political dynamics, culture and chronology which are necessary to understand modern events (from WWI) and contemporary conflicts.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above.

HIST 269/3.0 Politics and the State in Canada to 1896

How political power was conceived, exercised, and contested in the aboriginal, French and British colonial, and early-national formations in what is now Canada. The origins and nature of liberal democracy and changing forms of popular political participation, schooling, and the criminal law receive particular attention.

LEARNING HOURS 116 (36L;24O;56P)

PREREQUISITE Level 2 or above.

HIST 270/3.0 Contemporary China

Contemporary China aims to place the dynamics of recent social and economic change in historical perspective. Rather than proceeding both thematically and chronologically, it familiarizes students with the deep continuities with the phenomena such as urbanization, environmental challenges, cultural expectations, and gender norms.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 120 (48O;72P)

PREREQUISITE Level 2 or above.

EXCLUSION(S) HIST 299/3.0

HIST 273/3.0 New Imperialism

A survey of the 'New Imperialism' of the late 19th and 20th centuries. The course examines the origins and course of European expansion in Africa and Asia, justifications for and theories of empire, and the 20th century decolonization process. It will conclude with reflection on the New Imperialism from the vantage point of 'globalization'.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above.

HIST 274/3.0 Cultural History of Modern France

A cultural history of France from 1750 to the present. In addition to examining developments in French art, literature, and music, the course considers the changing venues and institutions of culture and deals with such overarching themes as French notions of language, sociability, private and public space, gender, and individualism.

PREREQUISITE Level 2 or above.

HIST 275/3.0 The African American Experience

This course explores the post-emancipation history of African Americans in the United States. It studies the modern civil rights movement and its long roots in ongoing resistance to racial subjugation by positioning the African American perspective at the centre of its investigation.

LEARNING HOURS 117(36L;81P)

PREREQUISITE Level 2 or above.

HIST 279/3.0 20th-Century Canada

A study of the major economic, social and political themes. The emphasis is upon the interaction between political events and change in the economy and society.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above.

EXCLUSION(S) HIST 124/6.0; HIST 260/6.0

HIST 280/6.0 Gender in North American History

A survey of the history of gender in North America. Examines topics such as patriarchy and the unequal status of women, masculinity, racial and ethnic relations, and sexuality. Also considers the impact of gender on historical events and phenomena such as industrialization, class conflict, World War II and the Cold War.

NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.

LEARNING HOURS 240 (72O;168P)

PREREQUISITE Level 2 or above.

EXCLUSION(S) HIST 281/3.0; HIST 282/3.0; HIST 283/3.0

HIST 282/3.0 Gender in North American History, 1000 to 1880
A survey of the history of gender in North America. Examines topics such as patriarchy and the unequal status of women, masculinity, racial, ethnic relations, and sexuality until 1880.
LEARNING HOURS 120(36O;84P)
EXCLUSIONS HIST 280/6.0

HIST 283/3.0 Gender in North American History, 1880 to 2000
A survey of gender inequalities as a consequence of industrialization. Examines topics on the impact on gender on phenomena such as industrialization. Class conflict, World II, and the Cold War.
LEARNING HOURS 120(36O;84P)
EXCLUSIONS HIST 280/6.0

HIST 285/3.0 Latin America to 1850: The Colonial Experience
A survey of Latin American history from the pre-conquest era to the mid-19th century. Examines the complexities of Spanish and Portuguese colonialism, the Independence movements, and the ensuing struggle to build a viable post-colonial order.
LEARNING HOURS 129 (33L;24O;72P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 302/6.0

HIST 286/3.0 Latin America from 1850 to Today: The Modern Era
A survey of Latin American history from 1850 to the recent past. Major events of the 20th century will be examined in historical context, with special attention to issues of development, nation building, and political and social conflict.
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 315/6.0

HIST 287/3.0 Early Modern England
A survey of English history during the early modern period (16th- and 17th-centuries), with a thematic focus on the formative political, religious, and intellectual upheavals of the age.
LEARNING HOURS 123 (39L;84P)
PREREQUISITE Level 2 or above.

HIST 288/3.0 The Rise of the British Empire
This course surveys the emergence and development of the first British Empire, from the age of exploration through the loss of the American colonies. Topics will include: the conceptual impact of the new world; patterns of migration; slavery; the economic and political impact colonization; and ideologies of empire.
LEARNING HOURS 123 (39L;84P)
PREREQUISITE Level 2 or above.

HIST 289/3.0 Modern Britain and the World
A survey of the modern global history of Britain in the 19th and 20th centuries. The course investigates how Britain both shaped and was shaped by the world.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 329/6.0

HIST 294/3.0 Arab-Israeli Conflict and Regional Security
The history of violence and attempts at peacemaking in the Arab-Israel conflict, from its beginnings in the twilight years of the Ottoman Empire to the 'Oslo (1993) peace process' and the outbreaks of autumn 2000. The impact of this conflict on regional security.
NOTE Offered also as a Cognate course in the Program in Jewish Studies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.

HIST 295/3.0 The Holocaust
The background to and processes of the destruction of the Jews of Europe between 1933 and 1945. Themes to be covered include: modern anti-semitism, Jewish communities in the inter-war era, Nazi racial policies, the *Judenrat*, the organization of

the death camps, the attitudes of the Christian churches, the role of collaborators, the ideology of mass murder, and the questions of 'compliance', 'resistance', and 'silence'.
NOTE Offered also as a Cognate course in the Program in Jewish Studies.
LEARNING HOURS 129 (77L;52P)
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 306/6.0

HIST 296/3.0 The Making of the Muslim Middle East (550-1350 C.E.)
This course examines a formative period of Islamic society: the transformations of the late antique Near East to the Muslim Middle East. The course covers the period of the rise of Islam to the consequences of the Mongol conquests. It surveys the social, political, cultural and religious history of a civilization spanning Spain to Central Asia.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSION(S) HIST 305/6.0

HIST 298/3.0 Imperial China
A survey of Chinese history, thought, and material culture from the time of the first establishment of the unified Empire in 221 B.C.E. to the last Emperor's abdication in 1912. A variety of recent reconstructions of parts of China's imperial past will also be discussed.
PREREQUISITE Level 2 or above.

HIST 299/3.0 China since 1800
An introduction to China's recent history, offering interpretive frameworks for issues such as the competence of the Qing government, population growth, revolutionary movements, Mao Zedong's leadership, and economic expansion.
PREREQUISITE Level 2 or above.
EXCLUSIONS HIST 270/3.0

HIST 301/6.0 Medieval Societies
Selected issues in the political, social and cultural history of Medieval Europe and the Mediterranean. Emphasis on scholarly debates and the interpretation of primary sources in translation.
NOTE In Fall Term, HIST 301/6.0 meets in the same classroom with HIST 218/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 218/3.0

HIST 302/6.0 Colonial Invasions, Colonial Lives
This course will focus on learning to interpret primary and secondary sources, conduct historical analysis, discern a thesis and methodology, and write analytical short essays. Course examines the impacts of invasion and colonialism on the lives of colonial Latin American subjects.
NOTE In Fall term, HIST 302/6.0 meets in the same classroom with HIST 285/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 285/3.0

HIST 303/6.0 History of the Caribbean in a Global Perspective
An introduction to Caribbean History from the early 15th century to the present. Topics will include early Spanish contact, plantation systems, slavery and resistance, U.S. intervention and globalization. Organizing themes include gender, race and ethnicity, cultural memory systems, identity, rediasporization, popular culture, and postcolonialism.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 304/6.0 The Civil War and the Making of America
Focus on the causes and consequences of the Civil War, slavery, antebellum social and political divisions, secession, the experiences of soldiers and civilians during the war itself, reconstruction, and the place of the Civil War in US culture since 1877.
NOTE In Fall Term, HIST 304/6.0 meets in the same classroom as HIST 216/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

EXCLUSIONS HIST 216/3.0

HIST 305/6.0 Muslim Societies
A study of historical societies in which Muslims have played a predominating role, particularly in the Middle East and North Africa. Selected issues in religious, political, social, economic and cultural history will be examined with an emphasis on the interpretation of primary sources in translation and debated scholarly issues.
NOTE In Fall Term, HIST 305/6.0 meets in the same classroom with HIST 267/3.0 or HIST 296/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 296/3.0

HIST 306/6.0 Holocaust: Problems and Interpretations
This course examines competing explanations of the genocide of European jewry in the 1930s-40s and how it was allowed to occur. Students develop skills of analyzing historical documents, writing, class participation, and critical debate of historiography.
NOTE In Fall Term, HIST 306/6.0 meets in the same classroom as HIST 295/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 295/3.0

HIST 310/6.0 Modern India: Colonial, National, Global Histories
The history of the Indian subcontinent from the eighteenth century to the present. Topics include the decline of the Mughal Empire, the nature of British colonial domination, the nationalist movement and the processes by which India came to be defined as a modern nation. Course materials include standard works of history, newspapers, novels and images.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 312/6.0 Canadian Social History
An introduction to the themes and approaches pursued by Canadian social historians, including histories of race, gender, class, colonialism, and sexuality. While specific course frameworks may vary, this course seminar will emphasize the writing, research, communication, and analytical skills necessary for more advanced historical study.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 313/6.0 British North America, 1759-1867
This course will survey the political, social, economic, and cultural development of the British colonies that became Canada from the conquest of Quebec to Confederation. Native-newcomer relations, the maturation of settler societies, and new institutional structures will receive special attention. Different historical approaches and the use of primary sources will be emphasized.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS *HIST 278/3.0*

HIST 314/6.0 American Society and Culture Since 1877
An analysis of significant social and cultural trends in the United States since 1877. Topics include constructions of race and gender; consumer culture; industrialization; the myth of the frontier; popular culture; the civil rights movement.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 315/6.0 Modern Latin American History: Sources and Debates
In first semester, students join with the lecture course 'Latin America 1850-Today'. In second semester, students deepen their exploration of Latin America's modern history in a seminar format, with emphasis on major controversies, critical reading of historical sources and texts, speaking, research, and writing skills.
NOTE In Fall Term, HIST 315/6.0 meets in the same classroom with HIST 286/3.0.
LEARNING HOURS 240 (34.5L;36S;1.5T;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 286/3.0

HIST 316/6.0 European Politics and Society Since 1789
A basic survey of Europe since 1789. Topics include the origins and consequences of the French Revolution; the Industrial Revolution; the development of parliamentary democracy; nationalism; the origins and consequences of the Russian Revolution; imperialism; the two World Wars; fascism; communism.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 318/6.0 Modern East Asia
The formation of modern China, Vietnam, Korea, and Japan in historical and regional contexts. The development of research skills is emphasized, along with structured discussion of readings and research.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 321/6.0 Social and Cultural Change in Europe, 1500-1800
This course explores the society and culture of Early Modern Europe (ca 1500-1800). Students will read and discuss recent works of social and cultural history concerning peasants, impostors, heretics, missionaries, Asians, Persians, kings, and popes in Europe. Topics will include: Religion, Popular Culture, Carnival, Witchcraft, Marriage and Family Life, Imperialism, Courts, Social Criticism, Enlightenment, and Revolution.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 323/6.0 Modern European Thought and Culture
An examination of selected themes in the cultural and intellectual history of Europe from 1750 to the present.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 324/6.0 Race and Immigration in North America
Race relations and immigration in North American history, with emphasis on Canada from the 1840s to the 1980s. Covers native-non-native contact, European immigrants, migration of blacks from the U.S. south, ethnic radicalism, Asian immigration, Japanese internment, immigration policy, 'multiculturalism,' and changing definitions of 'race'.
LEARNING HOURS 240 (72S;168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 329/6.0 Modern Britain
Topics include political, social, and cultural transformations in the 19th and 20th centuries, the world wars, imperialism and empire, decolonization, the Cold War, and the 1960s. Emphasis on critical interpretation of primary source material and historical debates.
NOTE In some years, HIST 329/6.0 will meet in the same classroom as HIST 289/3.0 in the Fall.
LEARNING HOURS 228 (72S;72O;84P)
PREREQUISITE Registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 289/3.0

HIST 330/6.0 Topics in History
Seminar on a selected topic in history. Topics change from year to year. Consult department website for details.
LEARNING HOURS 240(72S; 168P)
PREREQUISITE Registration in a HIST Major or Medial Plan.

HIST 332/3.0 Medieval Britain
Combining history and archaeology, this course explores the key developments of Medieval England from the formation of the Anglo-Saxon kingdoms to the late 15th century Wars of the Roses. A significant proportion of this course will be devoted to the study of material culture, the practice of archaeology and the excavation of medieval sites.
NOTE Offered only at the Bader International Studies Centre, Herstmonceux.
LEARNING HOURS 119 (22.5L;7.5S;8Lb;16T;35G;30P)

HIST 335/9.0 The Age of Jackson
An examination of Americans' struggles with the conflicting ideals of republicanism and liberalism in the first half of the 19th century. Topics include the presidency of Andrew Jackson, political party formation, Native Americans, African-Americans, women, labour, the expansion of slavery, and the rise of sectional conflict.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 337/4.5 Multiculturalism in the Ottoman Empire
For nearly half a millennium, the Ottoman Empire ruled large parts of Europe, West Asia and North Africa. Although scholars agree on dates and places, they remain divided on almost every other aspect of the Ottoman past. This course investigates Ottoman history through the debates that have driven research over the last half century, beginning in the 13th century and concluding with World War I.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 338/4.5 Western World Ethnohistory
An introduction to European schools of ethnohistory which examine First World minority cultures, groups, and social classes within the Occidental hegemony, by focussing on the intersections of oral history, folklore, anthropology and sociology at the convergence of ethnicity, race, nationality, gender, class, sexuality and imperialism.
LEARNING HOURS 180 (36S;24O;120P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 339/4.5 Jews Without Judaism
This course explores the North American Jewish engagement with modern ideologies such as secularism, antisemitism, liberalism, nationalism, socialism, feminism, and neo-conservativism. Other specific topics include the secularization of universities; the recent retrenchment of Orthodox Judaism; and the resurgence of 'popular atheism'.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 340/9.0 French Canada, 1830-2000
The growth of French Canada since the early nineteenth century and the development of its relations with the rest of the country.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 341/9.0 The Reformation
This course offers a balanced introduction to the Reformation. The seminar takes a critical approach to a broad range of subjects including late medieval religion, Christian humanism, Luther, Zwingli, Calvin, Radical Reformation, Reformation beyond German lands, social and cultural impact of the Reformation, and Catholic Reformation.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 344/4.5 Insiders/ Outsiders: Jewish Identity in the New World
An examination of the path that led from the state-sanctioned racial profiling of immigrants in the late nineteenth century to current multicultural ideas and policies in Canada and the United States, with an emphasis on the role Jewish intellectuals, politicians, and community leaders played in developing and, sometimes, resisting such changes.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 349/4.5 Early Modern European Intellectual History
An examination of early modern European intellectual history from the early 16th century through the mid-18th century, with a particular focus on political thought. Topics will include the Scientific Revolution, the impact of the Wars of Religion and of overseas expansion on European intellectual life, constitutionalism, Cartesianism, gender, and the political philosophies of Hobbes and Rousseau.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 351/4.5 War, Reform and Revolution in Russian History
Our seminar will examine political, economic, social, and cultural aspects of the history of Russia from 1700 to the present. We will focus on the most pivotal moments of Russian history – major wars, reforms, and revolutions and study the ways they changed Russia as well as resistance to these changes.
LEARNING HOURS 180 (36S;36O;108P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSION(S) HIST 400/4.5-002 (Fall Term 2016-17) and HIST 400/4.5-003 (Fall Term 2015-16)

HIST 352/4.5 Northeast Africa from 1850s
This course examines Northeast African social, political and economic history since the mid-19th century. Topics include: birth of modern nation states in the region, onset of European colonialism, regional and international rivalry due to the region's global geostrategic significance, independence, post-independence challenges and opportunities.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 353/4.5 Revolutions and Civil Wars in Twentieth-Century Latin America
Research seminar on revolutions, civil wars, and political violence in twentieth-century Latin America. Includes case studies of Mexican and Cuban revolutions, Central American civil wars, and other insurgencies. Explores theories of revolution, patterns of unrest, and attempts to bring about revolutionary change.
LEARNING HOURS 170 (36S;2I;6O;126P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 364/4.5 Imperial Borderlands: Russia and the Soviet Union
This course examines the multi-ethnic, multi-confessional nature of the lands of the former Russian Empire and Soviet Union, focusing on the borderlands. Topics include nationality policies, the status of Muslims and Jews, definitions of Empire, and the treatment of linguistic minorities.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 365/4.5 History Outside the Book
Examination of historical research methods using primarily non-printed sources, with emphasis on material culture and its application to community history. Students will examine the use of photographs, ephemera, artefacts, oral history, popular music, movies, magazines and posters to consider how these sources can augment written documentation.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 367/9.0 Utopian Visions and Movements for a New Society
An examination of the recurring dream in European society of a glorious future and of attempts to describe and realize it. The course begins with images of the past and future in Antiquity but focuses extensively on Medieval and Early Modern Europe.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 390/9.0 Topics in History
Seminar on a selected topic in history. Topics change from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 391/9.0 Topics in Canadian History
Seminar on a selected topic in Canadian history. Topics change from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 400/4.5 Topics in History
Seminar on a selected topic in history. Topics change from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.

LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 401/4.5 Topics in Canadian History
Seminar on a selected topic in Canadian history. Topics change from year to year; course is either being offered for the first time or is being taught by visiting faculty. Consult department office or website for details.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 404/4.5 Themes in Diaspora History
Theoretical and methodological approaches to the study of diaspora, and the social and cultural history of diasporic communities in the early modern and modern world. Labour, trade and migration; race, religion and identity; tensions between national, imperial and diasporic formations are explored with a focus on a specific historical example.
LEARNING HOURS 186 (36S;6Pc;24O;120P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 405/9.0 U.S. Public Policy and Society since 1945
Key trends and issues in U.S. economy, society and politics such as rising inequality and falling social mobility levels; changes in family structures; racial diversions; globalization, de-industrialization, and the plight of the middle class. Health, education, housing, social security, welfare and tax policy examined.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 390/9.0-003 (2015-16)

HIST 406/4.5 Hunger in Modern European History
This course probes the nature and meaning of hunger in Modern European History. Students will critically examine the causes of hunger in the modern era and explore how Europeans conceived of and sought to manage hunger. Topics include colonial and Soviet famines, the World Wars, humanitarianism, poverty and the welfare state, and the cold war.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 400/4.5-001 (Fall 2015); HIST 400/4.5-002 (Winter 2018)

HIST 407/4.5 Muslims and Islam in South Asia
History of Islamic modernities and Muslim lives in South Asia from the sixteenth century to the present. Themes include early modern Islamic culture; the social history of the Mughal world; local Islamic healing cultures and legal traditions; the languages of secularism and political Islam in India, Pakistan and Bangladesh.
LEARNING HOURS 180 (36S;24Pc;120P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 409/4.5 Twentieth Century Europe
Subjects will range from social, cultural, political, economic and military history. The course will acquaint students with a few of the older 'classics' in Western European historiography. In addition, we will look at some of the most innovative recent literature.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 410/9.0 Globalization
A history of the rise of global trade, competition, cultural exchange, warfare, imperialism, and development. An examination of the benefits and pitfalls of globalization, the winners and losers, in both the developing world and the rich Western world. Other issues include the possible link between globalization and income inequality and the welfare state.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 411/4.5

HIST 411/4.5 Globalization, Wealth and Inequality in the West since 1945
Examines the major contours of Western capitalism and the emergence of a more integrated global marketplace since 1945. Topics include: the rise in prosperity followed by the rise in income inequality since the 1970s; technological change; the

'downsizing' phenomenon; related trends in social policy. A balance of pro and con literature on 'globalization' will be examined.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 410/6.0

HIST 412/4.5 One Land, Many Narratives, Israel/Palestine
A dialogue seminar on the geographical, historical, and cultural setting of the Land of Israel/Palestine; impact of foreign powers and ideas; its role in religious and political thought; nationalism; construction of narratives, competition for hegemony and territory; attempts to divide the land; the role of dialogue between Palestinians and Jews.
LEARNING HOURS 180 (36S;36O;108P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSION(S) HIST 400/4.5-001 (Fall 2016-17); HIST 400/4.5-002 (Fall 2015-16); HIST 400/4.5-003 (Fall 2013-14 and Winter 2014-15); HIST 396/4.5 (Fall 2011-12)

HIST 413/4.5 Jews/Muslims in Enlightenment
The Enlightenment used reason to make boundaries between Christian Europe and Jews and Muslims, establishing the foundation for racism, orientalism, and colonialism, which led intellectuals to formulate The Jewish Question and The Eastern Question, and societies continue to seek solutions as they struggle with antisemitism and Islamophobia.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 400/4.5-001 (Winter 2016-17); HIST 400/4.5-001 (Winter 2015-16)

HIST 416/4.5 Material History in Canada
Introduction to the basics of material history analysis focussing on the 'stuff' of everyday life in Canada, and how it has shaped Canadian identities and cultures since 1900. The main goal is to show students how artifacts can inform and enrich historical inquiry by integrating methodological frameworks from archaeology, anthropology, etc.
LEARNING HOURS 180 (6L;30S;24O;120P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 418/9.0 Reformation and Revolution in Early Modern England
Explores the two watershed crises of England's early modern era: the Tudor Reformation and the Revolution of 1640-1660. Topics will include: religious warfare; early modern state-building; social and economic upheaval; and the evolution of political thought.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 419/4.5 The Italian Renaissance
This course explores the society and culture of the Italian Renaissance (ca 1100-1520). Students will read and discuss great works of literature (Dante, Petrarch, Boccaccio), philosophy (Ficino, Erasmus), political thought (Machiavelli, More), and lesser known sources, such as letters, diaries, and trial records. Topics will include; humanism (reception of classical literature), art, religion, ethics, and violence; ideals and realities about family life, marriage, and gender.
LEARNING HOURS 180(36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 420/9.0 Culture and Society in Cold War America
This course explores the impact of the Cold War on the American home front between 1945 and 1991. Topics include reactions to the atomic bomb, the role of civil defense, McCarthyism, the culture of consumption, and the impact of the Cold War on the family, politics, religion, science, the arts, and social movements.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 421/9.0 The Russian Revolution
Beginning with the development of revolutionary movements in the late 19th century, this course will examine major problems in the history of the Russian Revolution and the former Soviet Union. Special emphasis will be placed on the first two decades of Soviet rule and the Stalin period.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 422/9.0 The French Revolution
An examination of the French Revolution and the historiographical debates it has engendered. Themes to be explored include revolutionary political culture, art and festivals, democracy and political representation, how the Revolution affected women, the Revolution in the countryside, Counterrevolution, the nature of the Terror, and revolution in the colonies.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 424/4.5 Cultural History of Enlightenment France
An examination of how the Enlightenment changed French culture, focusing on key ideas of cultural development and stagnation, changing sensibility and sociability, and cultural institutions and venues, from the academy and salon to the coffeehouse and Revolutionary festival.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 425/9.0 Black Experience in Canada
Examines the Black experience in Canada from the 16th to 20th centuries. Topics include slavery, the arrival of the Black Loyalists, the migration of fugitive slaves, abolitionism, creation of Black communities and institutions. Twentieth century themes include military and labour participation, social activism, Caribbean migration.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 428/4.5 Slavery and the Law in North America, 1600-1865
This course examines the intertwined histories of slavery and the law in North America from the colonial era until the end of the American Civil War. It explores how the law shaped the contours of slave societies (and societies with slaves), and the key institutions that sanctioned and supported slavery in its creation.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 401/4.5-001 (Winter 2013); HIST 401/4.5-001 (Winter 2015)

HIST 429/9.0 American Thought and Culture
Primary emphasis is placed on social and intellectual developments in the 19th century.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 430/9.0 The Crusades and the Latin Kingdoms
An exploration of key topics in the history and interpretation of the Crusades, the society and culture of the Latin Kingdoms, and their impact on the peoples of the eastern Mediterranean, Muslim and Christian.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 431/4.5 Atlantic Canada
The political, social, cultural and economic development of the Maritimes and Newfoundland from the early 17th century to the present.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 432/9.0 Economy and Culture in Nineteenth Century America
This course examines cultural histories of economic life in nineteenth-century America and explores the ways in which culture and the economy shaped each other throughout the century. Topics may include the market revolution, slavery, financial markets, fiction and the market, industrialization, incorporation, and consumer culture.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 433/9.0 Power, Authority and the State in Early Canada
An advanced survey of how power and authority were understood, exercised, and challenged in Canada before 1896. Topics include political cultures and ideologies, tools of governance such as the law and schools, popular political participation and protest, nationalism, citizenship, and the emergence of the modern, liberal state.
LEARNING HOURS 360 (72S;24O;264P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 435/4.5 Global History
Advanced introduction to the fields of Global, World, and Transnational History. The origins, foundational debates, and major contributions of the field. Study how commodities, people, intellectual trends, and the environment can serve as methodological avenues in uncovering the global shape of our interconnected past.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 436/4.5 Topics in Canadian Legal History
This seminar explores central issues in and approaches to legal history based on Canadian examples. Topics may include the history of crime and punishment; the legal regulation of gender, sexuality, 'race', and Native-newcomer relations; the law and the evolution of modern capitalism; and the history of the legal profession, and civil rights.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 438/4.5 The Historical Imagination
This course focuses on the individual ingredients – including choosing viable sources, chronological plotlines and framing episodes and events – that historians use to construct historical narratives and ultimately gain a deeper understanding of what constitutes "History".
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 400/4.5-004 (Fall 2017)

HIST 439/4.5 Schooling Canadians
This seminar explores the history of schooling in Canada in its political, social and cultural contexts. Topics may include the development of the public education system, the feminization of teaching, Native residential schools, the relationship of education to racial, gender, class and sexual hierarchies, and changes in pedagogy and curriculum.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSIONS HIST 401/4.5-001 (Fall 2017)

HIST 440/4.5 Britain in the Enlightenment Era
This course will offer a political, social, and intellectual history of the Enlightenment in Britain. The chronological scope of the course will run from the Restoration to the French Revolution. The purpose of the course will be to set Enlightenment ideas within their political, social, and economic context, and introduce students to the methods of contextualism.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 441/4.5 Medieval Greece
An examination of the complex political, social, and cultural history of the region now thought of as Greece, from the emergence of the Byzantine empire to the start of Ottoman domination (4th to 15th centuries CE). Attention will be paid to historiography and its role in imagining the 'orient' and constructing the Modern Greek national identity.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.
EXCLUSION(S) HIST 400/4.5-002 (Fall 2012); HIST 400/4.5-002 (Winter 2016)

HIST 442/4.5 New World Societies
An exploration of how New World societies were born out of the contact between Europe, Africa, and the Americas that followed Columbus' landing in 1492. Topics will include contact, colonisation, slavery, trade, race, culture and creolization.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 443/4.5 The Origins of Crusading and the Creation of the Crusader East: 1095-1105
This course examines the history and interpretation of the medieval Crusades in the Middle East and Western Europe from 11th-13th centuries. Students will study the society of the crusaders in the Eastern Mediterranean and Western Europe and attempt to relate medieval crusading to present-day debates and issues.
LEARNING HOURS 180(36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan
EXCLUSIONS HIST 430/9.0

HIST 444/4.5 Themes in Crusade History
This course will explore the crusades' place in the history of the medieval world and consider the long and contentious history of the crusades and their meaning in the world today. Themes include travel, trade, gender and sexuality, warfare, art and architecture, and inter-religious interaction and conflict.
LEARNING HOURS 180(36S;144P)
PREREQUISTE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan
EXCLUSIONS HIST 430/9.0

HIST 446/4.5 Gender, Sexuality and Race in South Asia
This course explores sex, gender, man, woman, as products of particular cultural and scientific contexts, drawing on South Asian material. Themes include sexuality in Hindu mythology, colonial masculinity, sex and the body in Gandhi's thought, the gendered underpinnings of imperial ideologies, transnational feminism and its postcolonial critics, and the expression of queer identities in South Asia.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 447/4.5 Sex and the History of Medicine
An introduction to discussions of sex and gender in the history of medicine. Main themes include: the impact of cultural and social relations on the production of scientific and medical knowledge on sex and gender, and the impact of science and medicine in the creation of social categories.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 449/4.5 Topics in Medieval Mediterranean History
Thematic topics in the history of the societies and cultures of the Mediterranean region during the medieval era. These can include comparative and cross-cultural studies of society, economy, religion and political formations across the Latin West, Byzantium, and the Islamic World.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 451/9.0 The Experience of War in 20th Century Europe
An examination of transformations in the conception, practice and experience of war in 20th century Europe with a focus on the two World Wars. Topics include international law, gender and the home-front, trench warfare, popular violence and genocide, collaboration and resistance, and memory. Students will read primary sources such as diaries, letters and novels as well as scholarly literature.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 452/4.5 African Decolonization and In-Dependence
This course examines contemporary African political and economic history from the euphoric days of independence through the tumultuous decades of famines and pandemics to 'Africa rising' and the 'war on terror'. Topics include European late colonial rule, ascent to independence, structural readjustment programs.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 455/9.0 The Spanish Inquisition, 1450-1800: Sexuality, Sin, and Spiritual Beliefs
This course considers the Spanish Inquisition and extirpation of idolatries campaign in Spain and Latin America between 1492 and 1700. We examine how Catholic orthodoxy and heresy, faith, sexuality, healing practices, witchcraft and mysticism served as cultural unifiers and as markers of gender and ethnic differences.
LEARNING HOURS 360 (72S;288P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 456/4.5 Islam and Muslims in World History
Thematic approach to the history of the Muslim world in a cross-cultural, trans-regional, and global perspective. Topics vary, and may include but are not limited to religion and state, gender, nomadism, migration and refugees, commodities and resources, war, diaspora.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 458/9.0 The Social History of Modern Canada
Studies in Canadian society in its pre-industrial, industrial and post-industrial aspects, 1900-1975. Topics in labour, immigration, childhood, family, urban and rural history, with emphasis upon both the cultural and technological contexts of social change. Readings from the traditional and 'new' social history literatures. The discussion is national in scope with focus upon distinctive regional developments.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 459/9.0 British Culture and Society, 1780-1914
An exploration of approaches to 'community' and 'society' in British thought and culture from the late 18th to the early 20th century.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 460/9.0 The British and India, 1765-1947
An introduction to the study of British rule in India. This course examines the impact of the colonial governance of India on Britain from the mid-eighteenth century to Independence.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 461/4.5 Race and Ethnicity in Latin America 1492 to the Present
Examines the history of race relations in Latin America from European contact to the present. Topics include indigenous resistance and adaptation to conquest, African slavery and emancipation, debates about assimilation versus cultural survival, and whether Latin America provides a unique model of race relations.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 462/4.5 Social History of Modernizing Latin America 1860 to 1960
The history of everyday life in Latin America from 1860 to 1960, a century of global economic and cultural change. Themes include urbanization, the "social question", state and class formation, gender roles, crime, science and technology.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 463/4.5 Liberalism, Authoritarianism and Citizenship in Latin America
Key debates in the political history of Latin America from Independence (1820s) to the recent past. Themes include the tension between liberalism and authoritarianism; struggles for civil, political, and human rights; populism and charismatic leaders; revolutionary and reactionary ideologies.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 464/9.0 The History of Sexuality
This course examines the history of sexuality in a comparative context, using Canada, Britain and the United States in the 19th and 20th centuries as a focus.
LEARNING HOURS 360 (72S;288P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 465/9.0 Topics in Women's History
Comparative studies in the history of women and their experiences. Topics will vary from year to year.
LEARNING HOURS 360 (72S;288P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 466/4.5 Radicalism, Revolution, and Religion in Russian History and Literature

In nineteenth-century Russia, religion, politics, and literature were inextricably intertwined. This course will look at how Turgenev, Dostoyevsky, and other Russian writers grappled with religious questions, revolutionary activism, and the role of the writer in society. In turn, the course will examine how this literature influenced wider society.

LEARNING HOURS 180 (36S;144P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

EXCLUSIONS HIST 400-002 (2017-18 and 2018-19)

HIST 467/4.5 First Nations of North America

An examination of First Nations history from ancient times to the present in North America with a particular focus on the Canadian experience. Topics include culture theory, disease, trade, missionaries, the writing of native history, and contemporary events.

LEARNING HOURS 180(36S;144P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 468/9.0 Topics in Modern European Intellectual and Cultural History

An in-depth examination of intellectual and cultural changes in continental Europe, 1750 to the present, organized around such themes as changing views of selfhood, rationality, emotions, irrationality, and technology. Movements that might be examined include the late Enlightenment, Romanticism, realism, and modernism.

LEARNING HOURS 360 (72S;288P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 471/4.5 Power and Knowledge: Foucault for Historians

A seminar exploring the influence of Michel Foucault on the study of history, including the fields of madness and medicine, prison and punishment, sexuality and the self. The course also examines how historians have employed and critiqued Foucault's concepts in their own work, particularly in the areas of gender, race, and colonialism.

LEARNING HOURS 180 (36S;144P)

PREREQUISITE A grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 473/4.5 Black Women in Modern US History

This upper-year seminar explores the history of black women in the United States from the late nineteenth century to the contemporary era. It situates the history of black women within the broader contexts of U.S. politics, culture and society, while recognizing the ways that this history is distinguishable within it.

LEARNING HOURS 180 (36S;144P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 474/4.5 History of Gender and Technology

Exploration of the historical connection between gender and technology; how gender has influenced the design, production, and consumption of technology, as well as the ways in which medical technologies have altered ideas about sex and gender. Topics include domestic design, cyborg feminism, reproductive technologies, and women in computing.

LEARNING HOURS 180 (36S;144P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 476/9.0 Canada at War

An exploration of war in a Canadian context, with an emphasis on how war has shaped Canadian society and the relationship between Canada and its armed forces. Topics to be studied, from a Canadian perspective, include the military as a profession, military culture, combat stress, leadership, gender and sexuality in the military, and mutinies.

LEARNING HOURS 360 (72S;288P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 477/4.5 Animals and History

Recent Research on the role of animals in history have eroded the barriers between human and natural sciences. By reexamining the part played by animals not merely as beasts of burden, or resources, or even as companions, but as agents in historical processes, this course poses a critique of human exceptionalism and the meaning of agency.

LEARNING HOURS 180 (36S;144P)

PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

.

HIST 478/4.5 Nations and Nationalism in Global History
This seminar provides an in-depth introduction to the history of the nation-form: narratives of its global origins, its historical development and global dispersal in Europe, Asia, Africa, and the Americas, the simultaneous emergence of anti-colonialism and ultra-nationalism, its eclipse, and subsequent resurgence and revival in the post 9/11 world.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 481/4.5 History vs Pseudohistory
Students explore the prevalence of pseudohistory in Canadian popular media and apply critical tools to identify these modern myths. From ancient aliens to destroyed civilizations, why does history inspire theories about lost civilizations, dark conspiracies, apocalyptic predictions or mysterious technologies? How do we tell the truth from the bunk?
LEARNING HOURS 168 (36S;36O;96P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 482/4.5 Historiography of Medicine
An examination of historiography aspects of medical history including History and Philosophy, old and new subjects, old and new methods, old and new text styles. Students may orient readings to focus either on specific periods and places or on broad trends in History.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 484/4.5 Topics in Irish History, 1798 to the Present
An exploration of topics in the social, cultural, political and economic history of Ireland from the Rising of 1798 onwards.
NOTE It is recommended that students have at least one course in the history of Great Britain or of the British empire as preparation for this seminar.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 3.0 units from HIST 300-330; a GPA of 3.30 in all history courses; and registration in a HIST Major or Medial Plan.

HIST 485/4.5 The Social History of Canada: 1850-1919
This course investigates some of Canada's major social questions. Marginalized people were the main groups affected by or seen to be causing them. The solutions were institutions, legislation, or both. Institutions were mainly created in the 19th century, taking the form of asylums, hospitals, prisons, workhouses, and even schools.
LEARNING HOURS 180(36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan
EXCLUSIONS HIST 458/9.0

HIST 486/4.5 Social History of Canada in the 20th Century: 1919-1980
After WWI, Canada embarked on a new trajectory and entered the modern age. New issues, particularly those concerning women, the so-called "youth problem", and Indigenous people began to make themselves evident Questions of race, poverty, and work continued to be important, particularly during the Great Depression of the 1930s.
LEARNING HOURS 180(36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan
EXCLUSIONS HIST 458/9.0

HIST 498/4.5 China's Revolutions, 1911 to 1949
A course on China's nationalist and communist revolutions. Readings explore rival revolutionaries' goals and programs. Seminars examine the internal and international struggles affecting the outcome of the civil war of 1946-1949.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 499/4.5 China Since 1949
Explores political, economic, and cultural change in the People's Republic of China, while providing an introduction to specialized research methods. Attention will also be devoted to the recent history of Taiwan and Hong Kong.
LEARNING HOURS 180 (36S;144P)
PREREQUISITE A Grade of C+ in 6.0 units from HIST 300-330 and registration in a HIST Major or Medial Plan.

HIST 501/6.0 History/Queen's Archives Internship
Offers credit for archival work undertaken in conjunction with Queen's University Archives. One month before the beginning of the term during which the work will be undertaken, students must submit an application to the Chair of Undergraduate Studies requesting credit hours commensurate with the project's learning hours.
NOTE This course may be taken only once during a student's degree program.
LEARNING HOURS 240 (216Pc;24P)
PREREQUISITE Level 2 or above and permission of the Department.
EXCLUSIONS HIST 212/3.0; HIST 502/3.0.

HIST 502/3.0 History/Queen's Archives Internship
Offers credit for archival work undertaken in conjunction with Queen's University Archives. One month before the beginning of the term during which the work will be undertaken, students must submit an application to the Chair of Undergraduate Studies requesting credit hours commensurate with the project's learning hours.
NOTE This course may be taken only once during a student's degree program.
LEARNING HOURS 120 (108Pc;12P)
PREREQUISITE Level 2 or above and permission of the Department.
EXCLUSIONS HIST 212/3.0; HIST 501/6.0

HIST 515/6.0 Independent Study Project
The project may be either a research paper involving the use of primary and secondary sources, or a more broadly conceived independent reading program.
NOTE Students must obtain the approval of the supervising instructor and of the Undergraduate Committee for any project submitted.
LEARNING HOURS 240 (24I;24O;192P)
PREREQUISITE Level 4 and (registered in a HIST Major or Medial Plan) and (a GPA of 3.30) and (30.0 units in HIST).
EXCLUSIONS HIST 517/3.0.

HIST 517/3.0 Independent Study Project
The paper may be either a research project involving the use of primary and secondary sources, or a more broadly conceived independent reading program.
NOTE Students must obtain the approval of the supervising instructor and of the Undergraduate Committee for any project submitted.
LEARNING HOURS 120 (120P)
PREREQUISITE Level 4 and (registered in a HIST Major or Medial Plan) and (a GPA of 3.30) and (30.0 units in HIST).
EXCLUSIONS HIST 515/6.0; *HIST 516/6.0*

HLTH 101/3.0 Social Determinants of Health
This course introduces students to basic concepts in public, population and global health, and introduces social determinants of health, such as poverty, income inequality, and racism, in Canadian and global contexts.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 117 (12L;9T;24O;72P)

HLTH 102/3.0 Personal Health and Wellness
This course provides an introduction to the variety of factors which could affect a person's health and wellness.
NOTE Not available to students in a PHED or KINE Plan.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 108 (36L;72P)
ONE-WAY EXCLUSION May not be taken with or after 12.0 units in KNPE (formerly PPHE; PHED; KINE).

HLTH 200/3.0 Physical Fitness and Wellness
An overview of principles of physical fitness and wellness with an emphasis on the planning and implementation of a personalized physical fitness program.
NOTE Not available to students in a KINE or PHED Plan.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2.
ONE-WAY EXCLUSION May not be taken with or after: KNPE 227/3.0 (formerly *PHED 155/3.0*); KNPE 255/3.0 (formerly *PHED 255/3.0*).

HLTH 205/3.0 Introduction to Health Promotion
A survey of the practice of health promotion. Topics include the field's history, philosophies of health promotion, the social ecological framework, program planning and evaluation, practitioner skills and competencies, cultural competence, ethics, the use of theory, community organizing, social marketing, harm reduction, information literacy, and health promotion practice in selected settings.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2 and registration in a HLTH Plan and HLTH 101/3.0.

HLTH 230/3.0 Basic Human Nutrition
Study of macronutrients, selected micronutrients, energy needs for human performance, relationship of nutrient metabolism to health, consequences of nutrient deficiencies and excesses. Examine how student's own food intake may influence present and future nutritional well-being.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 108 (36L;72P)
RECOMMENDATION 4U Biology.
PREREQUISITE Level 2.
EXCLUSION(S) NURS 100/3.0.

HLTH 235/3.0 Food Systems
This course introduces contemporary issues in the dominant food system and the ways in which food production, distribution and consumption produce and reproduce relations of power.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE GNDS 120/3.0 or GPHY 101/3.0 or HLTH 101/3.0 or SOCY 122/6.0 .

HLTH 237/3.0 Introduction to the Study of Alcohol and Drug Problems
An overview of conceptual and practical issues. Topics include drugs, drug action, theories on disordered use, treatment/recovery/healing, harm reduction, and public policy as well as the understanding of consciousness and altered states.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE PSYC 100/6.0.

HLTH 252/3.0 Introduction to Research Methods

This course provides an introduction to methods, techniques and approaches to research. The course will explore the formulation of research questions, experimental design, interpretation of results, and the use of statistical analysis in experimental research. Ethical issues in research will also be discussed.

LEARNING HOURS 108 (36L;72P)

PREREQUISITE Level 2 or above and registered in a KINE, PHED or a (HLTH Major or Medial) Plan.

COREQUISITE 3.0 units from STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0; ECON 250/3.0; PSYC 202/3.0; SOCY 211/3.0; BIOL 243/3.0; CHEE 209/3.0; GPHY 247/3.0; KNPE 251/3.0 or *PHED 251/3.0*; POLS 385/3.0; NURS 323/3.0.

EXCLUSION(S) BMED 270/3.0

ONE-WAY EXCLUSION May not be taken with or after: GPHY 240/3.0; PSYC 203/3.0; SOCY 210/3.0.

ONE-WAY EXCLUSION May not be taken with or after: GPHY 240/3.0; PSYC 203/3.0; SOCY 321/3.0; STAT 362/3.0.

HLTH 270/3.0 Movement Behaviours and Health

Movement is on a continuum that includes sleep, sedentary behaviour, and physical activity. This course will use primary prevention and life course approaches to study movement behaviour levels of the population, the influence of movement behaviours on health, and strategies for intervening on movement behaviours.

NOTE Not available to students in a KINE or PHED Plan.

LEARNING HOURS 108 (36L;72P)

PREREQUISITE HLTH 102/3.0.

EXCLUSION(S) KNPE 255/3.0.

HLTH 300/3.0 Community-Based Practicum

A community-based practicum for Health Studies students to apply knowledge gained in theory-based courses and develop a range of professional skills. Practicum opportunities vary year to year, subject to availability of an appropriate placement in a relevant workplace setting.

NOTE Students are expected to participate in professional development workshops offered by the SKHS Coordinator and Career Services.

LEARNING HOURS 126 (18G;84Oc;24P)

PREREQUISITE (Level 3 or above and registration in a HLTH Major or Medial Plan) and minimum cumulative GPA of 1.90 and permission of the Coordinator and Undergraduate Coordinator in the School of Kinesiology and Health Studies.

EXCLUSION(S) KNPE 300/3.0; KNPE 330/4.5; KNPE 346/4.5.

HLTH 305/3.0 Fundamentals of Health Policy

An overview of the fundamentals of health policy with an emphasis on the Canadian context. Topics to be discussed include history of the Canadian public health care system; the Canada Health Act; the political and economic environment of the Canadian health care system; issue and challenges in Canadian health policy; and comparative perspectives.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 3 or above and HLTH 101/3.0.

EXCLUSION *HLTH 405/3.0*.

HLTH 315/3.0 Theory and Practice of Health Behaviour Change

This course provides an overview of models and theories of health behaviour change at varying levels of practice and analysis, including individual, intrapersonal, group, and community influences on health behaviour. Students will learn how theories are applied in health promotion interventions in a variety of settings, with a variety of populations, and for a variety of health behaviours.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE PSYC 100/6.0 and (3.0 units from HLTH 205/3.0; KNPE 265/3.0) and registered in a HLTH, KINE or PHED Plan or the Certificate in Disability and Physical Activity.

HLTH 323/3.0 Epidemiology
Basic methods involved in researching the distribution and determinants of health and disease in populations. Core measurement (rates, standardization, impact, association) and interpretation (bias, confounding, interaction, chance) issues are covered. The course also examines epidemiological approaches to study design including descriptive (cross-sectional and ecological), observational (case-control and cohort), and experimental (randomized controlled trials) approaches. Restricted to students in a concentration in health studies, kinesiology or physical and health education.
NOTE Restricted to students in a HLTH, KINE, or PHED Plan. Limited spaces are available to students in the LISC(H) and BCHM(H) Plans.
LEARNING HOURS 120 (24L;6T;6G;84P)
PREREQUISITE [(KNPE 251/3.0 or STAT_Options) and HLTH 252/3.0] or [STAT_Options and registration in a LISC(H) or BCHM(H) Plan].
ONE-WAY EXCLUSION May not be taken with or after: EPID 301/3.0.

HLTH 331/3.0 Advanced Human Nutrition
Current issues relating to nutrition and health promotion/disease prevention. Such topics as cardiovascular disease, weight control, eating disorders, nutrient needs during the life cycle, fads and quackery, sociocultural, economic and media influences. Topics may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE HLTH 230/3.0 or NURS 100/3.0.

HLTH 332/3.0 Foundations for Understanding Disability: A Health Perspective
This course provides upper-year students with a solid understanding of disability. Key disability concepts, such as definitions and models of disability, attitudes, human rights, accessibility, policy, and barriers are introduced and their relevance to health, quality of life and participation in several life domains are examined.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 112 (36L;4O;72P)
PREREQUISITE Level 3 or above. Open to students registered at the BISC.
EXCLUSION(S) HLTH 397/3.0-001 (2015-16); HLTH 402/3.0 (2014-15 or earlier); *KNPE 333/3.0*.

HLTH 333/3.0 Contemporary Issues in Human Sexuality
An investigation of current influences on sexual health. Issues will be considered from social, political, and historical perspectives. Topics which may be covered include sex education; lesbian, gay, bisexual, and transgender issues; sexual human rights; sexuality and war; HIV/AIDS; the history of marriage; and sexual violence.
LEARNING HOURS 120 (24L;12T;12G;72P)
PREREQUISITE Level 3 and registration in a PHED, KINE, or HLTH Plan.

HLTH 334/3.0 The Politics of Health and Illness
Explores cultural meanings of health and illness, the power dynamics through which these meanings are constructed, and related injustices in bodily experiences.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 3 and registration in a PHED, KINE, or HLTH Plan and (HLTH 101/3.0 or KNPE 167/3.0 or SOCY 122/6.0).

HLTH 350/3.0 Topics in Global Health
This course examines global health from a variety of perspectives, including anthropological, epidemiological, and sociological, to help understand the cultural and historical patterns shaping global health inequalities. With an emphasis on resource-poor countries, specific topics may include infectious and non-communicable diseases, nutrition and maternal health.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and HLTH 101/3.0.

HLTH 351/3.0 Health in Humanitarian Crises
Humanitarian crises due to natural disasters, armed conflict, disease outbreaks and other threats are growing contributors to ill-health worldwide. Case studies, evolving current events, and experiential learning will be utilized throughout the term to anchor course content.
NOTE Only offered at the Bader International Study Centre.
LEARNING HOURS 129(18L;18S;12G;11O;10Oc;60P)

PREREQUISITES HLTH 101 and Level 3 or above or registration at the BISC. Course is open to students registered at the BISC.
EXCLUSIONS No more than 3.0 units from HLTH 351/3.0; HLTH 397/3.0 topic ID Health in Humanitarian Crises

HLTH 352/3.0 Research Skills Development Practicum

A practicum for students in Health Studies working in the research labs and on research projects of SKHS faculty members. Includes a seminar series covering research topics and methodologies in: Applied Exercise Science; Epidemiology; Health Promotion; Psychology of Sport; Physical Activity and Health; and Sociology of Sport and Health.

NOTE Students will apply for a research-based practicum at the end of their second year. Recommended for students who intend to complete HLTH 595/6.0.
LEARNING HOURS 140 (12S;84Pc;48P)
PREREQUISITE KNPE 251/3.0 and Level 3 in a HLTH Plan; and permission of the course coordinator or the Undergraduate Coordinator in the School of Kinesiology and Health Studies.
COREQUISITE HLTH 252/3.0.
EXCLUSION(S) KNPE 352/3.0.

HLTH 397/3.0 Special Topics in Health Studies

Intensive coverage of topics that are current and/or of special interest in the area of Health Studies. Offered periodically by visiting professors or members of faculty. Students should check with the School regarding availability of this course.
NOTE Restricted to students in a concentration in health studies, kinesiology or physical and health education.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above in HLTH or KINE plan. Open to students registered at the BISC.

HLTH 401/3.0 Interprofessional Collaborative Education

This course offers the theory and context of Interprofessional education and collaborative practice from a global policy viewpoint as well as the opportunity to develop and apply the required Interprofessional education core competencies.
NOTE This course falls under a selection of courses with a focus on Interdisciplinary Studies in Global Health and Disability that will be offered only at the Bader International Study Centre.
LEARNING HOURS 129 (39L;5S;21G;24Oc;40P)
PREREQUISITE Level 4 and a minimum GPA of 1.9 and registration at the BISC.

HLTH 402/3.0 Disability Studies: Issues, Research and Policy

This course is designed to advance student understanding of the field of disability studies through the examinations and analysis of disability issues in the global context. Current research and policy, controversial issues, and systems affecting people with disabilities worldwide will be the focus.
NOTE This course falls under a selection of courses with a focus on Interdisciplinary Studies in Global Health and Disability that will be offered only at the Bader International Study Centre.
NOTE Students who are unable to take HLTH 332/3.0 must complete the online training modules about the Accessibility for Ontarians with Disabilities Act prior to participation in the BISC Global Health and Disability Program. See http://www.queensu.ca/equity/accessibility/aoda
LEARNING HOURS 127 (30L;18G;39Oc;40P)
PREREQUISITE Level 4 and a minimum GPA of 1.9 and HLTH 332/3.0 and registration at the BISC, or permission of the School.

HLTH 403/3.0 Community Based Rehabilitation

Explores global perspectives of Community Based Rehabilitation as a strategy for equalization of health, education and social inclusion of persons with disabilities. Design, implement and evaluate CBR programs and examine basic CBR frameworks, health and disability policy, global partnerships, education and training strategies.
NOTE This course falls under a selection of courses with a focus on Interdisciplinary Studies in Global Health and Disability that will be offered only at the Bader International Study Centre.
LEARNING HOURS 123 (42L;18G;23Oc;40P)
PREREQUISITE Level 4 and a minimum GPA of 1.9 and registration at the BISC.

HLTH 404/3.0 Global Studies of Social Inclusion, Community Participation and Mental Illness

While people with disabilities continue to experience challenges to their full and equal community participation, in the context of mental illness they are subject to particularly profound levels of social exclusion at a global level. We will examine current disability discourse as it relates to mental illnesses and exclusion of this population.

NOTE This course falls under a selection of courses with a focus on Interdisciplinary Studies in Global Health and Disability that will be offered only at the Bader International Study Centre.
LEARNING HOURS 120 (30S;20G;4I;10Oc;56P)
PREREQUISITE Level 4 and a minimum GPA of 1.9 and registration at the BISC.

HLTH 416/3.0 Program Planning and Evaluation
An examination and application of principles of program planning in a variety of settings. Topics will include needs assessment, intervention design and implementation, and evaluation. Students will develop a program plan.
LEARNING HOURS 120 (18L;18G;84P)
PREREQUISITE Level 4 and registration in a HLTH Major or Medial Plan and (HLTH 252/3.0 and HLTH 315/3.0)
EXCLUSION(S) *HLTH 415/6.0*
EQUIVALENCY *HLTH 415/6.0*.

HLTH 417/3.0 Community Based Programming and Evaluation
Designed to advance student understanding of health promotion program planning, implementation, and evaluation, this course uses seminar discussion and community-based activities to provide students with core competencies required in health promotion and public health practice. Students complete a service learning project with community partners.
LEARNING HOURS 120 (36S;36Pc;48P)
REREQUISITE Level 4 in a HLTH Major or Medial; HLTH 416/3.0; and a minimum cumulative GPA of a 2.7
EQUIVALENCY *HLTH 415/6.0*.

HLTH 430/3.0 Critical Weight Studies
We live in a fat- phobic world where discrimination on the basis of body size is a socially acceptable form of prejudice. This seminar style course draws on the rapidly developing literature in the scholarly field of fat studies to consider body weight and fat-phobia from critical, cultural perspectives.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE [Level 3 or above in a HLTH Major or Medial Plan] or [Level 3 or above in a PHED Specialization or KINE Specialization Plan and (HLTH 333/3.0 or HLTH 334/3.0)].

HLTH 434/3.0 Social Movements in Health
This course explores the proliferation of health social movements since the 1970s. Bringing together the interdisciplinary study of health and illness with social movement theory, the course analyses the strategies, goals, and outcomes of political organizing around conditions ranging from HIV/AIDS to sick building syndrome. Students will lead seminar discussions and undertake original research on a movement of their choice.
LEARNING HOURS 120 (24S;12G;84P)
PREREQUISITE HLTH 333/3.0 or HLTH 334/3.0 or DEVS 320/3.0.

HLTH 435/3.0 Seminar on HIV/AIDS Prevention
This seminar-style course involves critical assessment of HIV prevention interventions situated at varying levels of analysis and action. Consistent with the epidemiology of HIV/AIDS, the course focuses on interventions for disadvantaged and marginalized populations. Students should be prepared to lead discussion and present in class.
LEARNING HOURS 120 (24S;12G;84P)
PREREQUISITE HLTH 315/3. And Level 4 or above in a HLTH Major or Medial or KIN or PHE Plan.

HLTH 437/3.0 Seminar on Harm Reduction
Covers the philosophy, history, implementation, and efficacy of interventions that aim to reduce adverse consequences of legal and illegal drug use, without a focus on drug use abstinence. Examples are drawn from Canada and worldwide. Also covers the application of harm reduction to other public health domains such as gambling and sex work.
LEARNING HOURS 120(36S;84P)
PREREQUISITE HLTH 237/3.0 and Level 4 in a HLTH Major or Medial or Kinesiology degree plan.
EXCLUSIONS No more than 3.0 units from HLTH 437/3.0; HLTH 493/3.0 topic ID Harm Reduction

HLTH 445/3.0 Critical Health Promotion
This course provides advanced study of the major theoretical and methodological approaches in critical health promotion. Students will be primarily exposed to academic literature across several disciplines that engage with critical health promotion. Case studies of health promotion practice that illustrate critical perspectives will be discussed.
LEARNING HOURS 120 (36S; 84P)

PREREQUISITE Level 4 and (registration in a KINE Specialization Plan, PHED Specialization Plan, or HLTH Major or Medial Plan) and (HLTH 205/3.0 or HLTH 315/3.0).
EXCLUSION(S) HLTH 493/3.0-001 (2014/15 and 2015/16)

HLTH 455/3.0 Health and Built Environments
This course will examine how characteristics and configurations of urban environments, such as urban sprawl, transportation, community design, housing, and food networks, may promote or impede health and well-being. This seminar-style course will be especially useful for students considering careers in public health and/or urban planning.
LEARNING HOURS 118 (36S;10Oc;72P)
PREREQUISITE Level 4 in a KINE Specialization Plan, PHED Specialization Plan, or HLTH Major or Medial Plan.
EXCLUSION(S) HLTH 497/3.0 (if taken between 2012-2015

HLTH 456/3.0 Survey of Research and Literature in Health Studies
Independent study involving a critical review of the literature on an approved topic of specialization in Health Studies. Students must arrange for a faculty advisor approved by the School of Kinesiology and Health Studies. Limited spaces are available.
LEARNING HOURS 126 (6I;120P)
PREREQUISITE Level 4 in a PHED Specialization, KINE Specialization or (HLTH Major or Medial) Plan and permission of the supervisor and Undergraduate Coordinator in the School of Kinesiology and Health Studies.

HLTH 491/3.0 Special Project in Health Studies
This is an independent project in an area of specialization in Health Studies. Students must arrange for a faculty advisor approved by the School of Kinesiology and Health Studies to oversee their project.
LEARNING HOURS 126 (6I;120P)
PREREQUISITE Level 4 in a PHED Specialization, KINE Specialization or (HLTH Major or Medial) Plan; permission of the supervisor and the Undergraduate Coordinator of Kinesiology and Health Studies.

HLTH 493/3.0 Advanced Topics in Health Studies I
Honours level courses exploring advanced topics that are current and/or of special interest in the area of health studies. Students should check with the School of Kinesiology and Health Studies regarding availability of these courses.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 in a PHED Specialization, KINE Specialization or (HLTH Major or Medial) Plan.

HLTH 495/3.0 Advanced Topics in Health Studies II
Honours level courses exploring advanced topics that are current and/or of special interest in the area of health studies. Students should check with the School of Kinesiology and Health Studies regarding availability of these courses.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 in a PHED Specialization, KINE Specialization or (HLTH Major or Medial) Plan.

HLTH 497/3.0 Special Topics in Health Studies
Intensive coverage of topics that are current and/or of special interest in the area of Health Studies. Offered periodically by visiting professors or members of faculty. Students should check with the School regarding availability of this course.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and (registration in a PHED Specialization, KINE Specialization, HLTH Major, or HTLH Medial Plan) or registration at the BISC.

HLTH 595/6.0 Honours Thesis in Health Studies
An independent study involving a research proposal and project on an approved topic in the area of health enhancement or disease prevention. The research proposal will be completed in the fall term and the research project in the winter term. Students must arrange for a full-time faculty advisor in the School of Kinesiology and Health Studies.
NOTE Limited spaces available; priority to Health Studies students.
LEARNING HOURS 252 (12I;240P)
RECOMMENDATION HLTH 252/3.0.
PREREQUISITE A GPA of 3.50 and level 4 in a PHED Specialization, KINE Specialization or (HLTH Major or Medial) Plan; permission of the supervisor and Undergraduate Coordinator in the School of Kinesiology and Health Studies.

IDIS 210/3.0 Arts in Society
A broad-ranging introduction to the role arts play in human society with a focus on contemporary production and research. Through a series of guest speakers, students will engage with the arts' living practices embedded in social interaction addressing topics as wide-ranging as aesthetics, politics, race, representation, critical theory, and identities.
NOTE Students will be required to attend a variety of arts events outside class time which may include concerts, gallery exhibitions, performances, film screenings.
NOTE Administered by the Department of Film and Media.
NOTE Field trips: estimated cost $75.
LEARNING HOURS 108 (36L;24O;48P)
PREREQUISITE Level 2.

IDIS 220/3.0 Hacking the Humanities: An Introduction to the Digital Humanities
The course will work towards crafting a definition of the term 'digital humanities' through examining the way in which we create, use, and think about digital resources in humanities disciplines. Students will: learn the basic skills needed to create digital objects, use digital artifacts and tools specific to their own research interests, and engage in theoretical discussions.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (18L;9S;9Lb;30O;24Oc;30P)
PREREQUISITE Level 2 or above.
EXCLUSIONS IDIS 221/3.0; IDIS 222/3.0

IDIS 221/3.0 Digital Humanities I: Theorising the Digital User
How does a 'user' compare with a 'reader' or a 'viewer'? This course will equip students with perspectives and skills required to engage in a critical assessment of the use of technology in their current research practice. Students will be asked to evaluate digital resources using the skills of critical analysis native to humanities disciplines.
NOTE This course will only be offered at the BISC.
LEARNING HOURS 120 (36L;9Lb;12Oc;60P)
EXCLUSIONS IDIS 220/3.0

IDIS 222/3.0 Digital Humanities II: The Theory and Practice of Digital Representation
Students will investigate the process of translating a text from print to digital form and how understandings of textuality, textual materiality, and readership aid in theorising this process. Students will be introduced to basic elements of the standard humanities mark-up language, TEIP5, in order to better enable them to understand this process.
NOTE This course will only be offered at the BISC.
LEARNING HOURS 120 (36L;9Lb;12Oc;60P)
EXCLUSIONS IDIS 220/3.0

IDIS 280/3.0 Interprofessional Approaches in Healthcare
This course aims to prepare learners with the knowledge and capabilities for working within complex interprofessional environments common in the healthcare sector. The course introduces the basics of collaborative practice in healthcare and the related six interprofessional competencies.
NOTE Only offered online.
LEARNING HOURS 120 (96O;24P)
PREREQUISITE Level 2 or above or permission of the instructor.

IDIS 302/3.0 'Race' and Racism
Historical and contemporary racism and anti-racism; critical 'race' theories; experiences of people of colour; case studies of 'sites of struggle' around which racism is constructed and resisted, including communities, institutions, the nation state; Canadian focus and international examples.
NOTE Administered by the Department of Geography.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 2.

IDIS 303/3.0 Mathematics and Poetry
An exploration of the way in which the patterns that we observe in the world about us can be described by language and understood with the tools of analysis and synthesis. A carefully selected sequence of poems and mathematical problems will be examined in a discussion format, and students will be expected to examine similar examples on their own.
NOTE Administered by the Departments of English Language and Literature and Mathematics and Statistics.
PREREQUISITE Level 3 or above.

IDIS 304/3.0 British Studies I
An interdisciplinary introduction to the broad development of British life and culture, focusing on British national identity. The course usually combines British art history, history, literature and geography.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or above.

IDIS 305/3.0 British Studies II
An interdisciplinary introduction to the broad development of British life and culture, focusing on cultural and political conflicts in British society. The course usually combines British art history, history, literature and geography.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or above.

IDIS 410/3.0 Contemporary Cultural Performance in Practice
Students in film, visual art, drama, and music explore new modes of interdisciplinary performance practice through the creation of a collective work performed in public. Enrolment is limited.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 120 (36Pc;18G;66P)
PREREQUISITE Level 4 and registration in a STSC, FILM, ARTF, DRAM or MUSC Plan.

IDIS 480/3.0 Advanced Interprofessional Approaches to Healthcare
Strategies crucial for safe quality teamwork prepare learners with advanced capabilities for effective collaboration with clients, family, and communities. Examples are presented from authentic diverse workplaces. Assessments lead students to apply team-based learning and collaborative practice in group situations.
NOTE Only offered online. Consult the Bachelor of Health Sciences program.
LEARNING HOURS 120 (72O;48P)
PREREQUISITE Level 4 and IDIS 280/3.0 or permission of the Department.

INDG 301/3.0 Indigenous Ways of Knowing
This course will identify and examine characteristics and sources of Indigenous knowledge and pedagogies.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above or permission of the Department of Languages, Literatures and Cultures.

INDG 302/3.0 Indigenous Theories and Methodologies: Learning through Indigenous Worldviews
An introduction to Indigenous theories and research methodologies.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above and DEVS 220/3.0 or permission of the Department of Languages, Literatures and Cultures.

INDG 401/6.0 In Community Capstone: Research and Relationships
A fourth year Honours capstone project course exploring an issue in Indigenous Studies through both library-and community-based research. Working with an Indigenous community partner and the instructor, students will integrate knowledge and skills to carry out a research project.
LEARNING HOURS 240 (36S;36I;168P)
PREREQUISITE Level 4 and registration in the INDG Major or Medial Plan and INDG 302/3.0 or permission of the Department of Languages, Literatures and Cultures.

INTN 301/1.5 Professional Internship I
Part 1 of a 12-16 month, professionally supervised, career-related position designed to offer students the opportunity to learn about current advances, practices, and technologies in workplaces including business, industry, government, and community settings. Students will develop a range of workplace skills, learn about organizational culture, and expand their knowledge of career options.
NOTE Prior to undertaking the internship, workshops on résumé preparation and interview skills are required, coordinated by Career Services.
NOTE Students enroll in INTN 301/1.5 in the first term of the internship, INTN 302/1.5 in the second term of the internship, and INTN 303/3.0 in the final term(s) of the internship, for a total of 6.0 units.
PREREQUISITE Level 2 or 3 and a minimum GPA of 1.90.

INTN 302/1.5 Professional Internship II
Part 2 of a 12-16 month, professionally supervised, career-related position designed to offer students the opportunity to learn about current advances, practices, and technologies in workplaces including business, industry, government, and community settings. Students will develop a range of workplace skills, learn about organizational culture, and expand their knowledge of career options.
NOTE Students enroll in INTN 301/1.5 in the first term of the internship, INTN 302/1.5 in the second term of the internship, and INTN 303/3.0 in the final term(s) of the internship, for a total of 6.0 units.
PREREQUISITE INTN 301/1.5 and a minimum GPA of 1.90.

INTN 303/3.0 Professional Internship III
Part 3 of a 12 month, professionally supervised, career-related position designed to offer students the opportunity to learn about current advances, practices, and technologies in workplaces including business, industry, government, and community settings. Students will develop a range of workplace skills, learn about organizational culture, expand their knowledge of career options, and reflect on linkages between classroom knowledge and professional practice.
NOTE Students enroll in INTN 301/1.5 in the first term of the internship, INTN 302/1.5 in the second term of the internship, and INTN 303/3.0 in the final term(s) of the internship, for a total of 6.0 units.
PREREQUISITE INTN 302/1.5 and a minimum GPA of 1.90.
EXCLUSION(S) INTN 304/1.5.

INTN 304/1.5 Professional Internship III
Part 3 of a 16 month, professional supervised, career-related position designed to offer students the opportunity to learn about current advances, practices and technologies in workplace including business, industry, government and community settings. Students will develop a range of workplace skills, learn about organizational culture, expand their knowledge of career options and reflect on linkages between classroom knowledge and professional practice.
NOTE This course is intended for students participating in a 16 month internship. This is part 3 of 4.
PREREQUISITE INTN 302/1.5 and a minimum GPA of 1.90.
EXCLUSION(S) INTN 303/3.0

INTN 305/1.5 Professional Internship IV
Part 4 of a 16 month, professional supervised, career-related position designed to offer students the opportunity to learn about current advances, practices and technologies in workplace including business, industry, government and community settings. Students will develop a range of workplace skills, learn about organizational culture, expand their knowledge of career options and reflect on linkages between classroom knowledge and professional practice.
NOTE This course is intended for students participating in a 16 month internship. This is part 4 of 4.
PREREQUISITE INTN 304/1.5 and a minimum GPA of 1.90.
EXCLUSION(S) INTN 303/3.0

INTS 221/3.0 Global Issues of the 21st Century
A variety of intellectual approaches will be integrated in an interdisciplinary exploration of some of the major challenges facing the world community. Examination of such issues as the environment, poverty, disease, human rights, cultural identity or armed conflict will be used to stimulate discovery of what constitutes 'global engagement'. Topics will vary and the course may not be offered in every term.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 300/3.0 Special Studies in Britain and Europe in a Global Context I
This course will offer a unique opportunity to study a special topic in Britain and Europe in a global context. Topics will vary each term, and the course may not be offered every year. For detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 301/3.0 Special Studies in Britain and Europe in a Global Context II
This course will offer a unique opportunity to study a special topic in Britain and Europe in a global context. Topics will vary each term, and the course may not be offered every year. For detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 303/3.0 The Global Village: Case Studies of South Eastern England
This course will examine ways in which southeastern England has been and is connected to the world. Students will develop an appropriate research methodology drawing on local archival and oral resources to investigate selected topics. Topics will vary yearly and may be examined from a variety of perspectives: historical, sociological, cultural or within a multidisciplinary framework.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 306/3.0 Culture, Identity and Self
An introduction to the theory and formation of cultural identity with some reference to cross-cultural issues.
NOTE Administered by the Department of Philosophy.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
PREREQUISITE Level 2 or above.

INTS 307/3.0 Intercultural Relations
An examination of individual and group relations within and between culturally diverse societies. Topics include: relations among indigenous, immigrant and ethnocultural communities; acculturation and identity strategies; the role of prejudice, discrimination, dominance, emotions and values; intercultural communications and training; and modes of mutual accommodation (pluralism, internationalism and globalism).
NOTE Administered by the Department of Sociology.
PREREQUISITE Level 2 or above.

INTS 312/3.0 Seminar in Modern European Studies I
This course will offer a unique opportunity to study a special topic in Modern European Studies. Topics will vary each term, and the course may not be offered every year. For a detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 313/3.0 Seminar in Modern European Studies II
This course will offer a unique opportunity to study a special topic in Modern European Studies. Topics will vary each term, and the course may not be offered every year. For a detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 or permission of the instructor.

INTS 321/3.0 Urban Images: Race, Gender, Sexuality and the Imagined City
A comparative discussion of the representation of a number of global cities in contemporary fiction, film, and scholarly criticism with a focus on race, gender, and sexuality. The course explores recent shifts in understanding of cities and of urban life and the widely varying narratives these shifts have engendered.
NOTE Administered by the Department of Languages, Literatures and Cultures.
PREREQUISITE Level 2 or permission of the Department.

INTS 323/3.0 International Perspectives in the Creative Arts I
A study of thematic and stylistic approaches to the representation of selected cultures and to the presentation and evocation of global issues in one or more of the fine, performing or media arts. Topics will vary each year. For detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 in the relevant arts discipline.

INTS 324/3.0 International Perspectives in the Creative Arts II
A study of thematic and stylistic approaches to the representation of selected cultures and to the presentation and evocation of global issues in one or more of the fine, performing or media arts. Topics will vary each year. For detailed course description, see www.queensu.ca/bisc
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
PREREQUISITE Level 2 in the relevant arts discipline.

INTS 363/3.0 The Philosophy of International Law
The course explores international and transnational law and institutions and the ways familiar principles might apply to them. We will ask questions such as: What is the source of the authority and legitimacy of international norms? How should we think of the rule of law or procedural justice in an international context? Can international institutions be democratic? Is there a moral basis to state sovereignty?
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 116 (36L;80P)
RECOMMENDATION It is recommended but not required, that applicants have some academic background in international law and/or political or legal theory.
PREREQUISITE Level 3 or above.

INUK 101/3.0 Beginning Inuktitut Language and Culture

An introduction to the history and culture of the Inuit of Canada with particular emphasis on their language, Inuktitut, in both writing and speaking. This course is designed for those who have little or no exposure to the Inuit language nor the history of Canada's Inuit peoples.

LEARNING HOURS 120 (36L;84P)

EXCLUSION(S) LLCU 101/3.0 (Topic: Inuktitut).

INUK 102/3.0 Beginning Inuktitut Language and Culture II

Continuation of INUK 101/3.0. This course builds on the foundation of INUK 101/3.0 expanding the student's knowledge of the vocabulary and structure which enables them to carry on limited conversation in selected everyday topics. This course will also provide an overview of the history and culture of the Inuit from the early 20th century to today.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE INUK 101/3.0.

ITLN 111/3.0 Beginning Italian I
Offers a basic level of Italian understanding, speaking, reading and writing for students with no knowledge of Italian whatsoever.
NOTE Also offered through the Venice Term Abroad Program. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
ONE WAY EXCLUSION May not be taken with or after ITLN 204/3.0; ITLN 205/3.0.
EQUIVALENCY *ITLN P10/3.0.*

ITLN 112/3.0 Beginning Italian II
The continuation of ITLN 112/3.0. Also for students who have some knowledge of Italian but have not completed 4U Italian or equivalent. For these students an assessment interview with the instructor is required before registration. Contact the Department of Languages, Literatures and Cultures for details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in ITLN 111/3.0 or *ITLN P10/3.0*.
EXCLUSION(S) ITLN 111/3.0; *ITLN P10/3.0*
ONE WAY EXCLUSION May not be taken with or after ITLN 204/3.0; ITLN 205/3.0.

ITLN 204/3.0 Italiano intermedio
A review of the fundamentals of the Italian language, designed to reinforce and develop the student's comprehension, speaking and writing ability.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in ITLN 112/3.0.
ONE WAY EXCLUSION May not be taken with or after ITLN 205/3.0.

ITLN 205/3.0 Italiano avanzato
Emphasizing the application of morphology and syntax, with written and oral practice. Readings will be discussed from lexical, syntactical and thematic points of view.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in ITLN 204/3.0.

ITLN 310/3.0 Italy and the Classical Tradition
The ancient Greek and Roman tradition in literature, art and the politics of Italy from the Middle Ages to the 18th century. Texts and works of art will be studied in the context of the historical, cultural and political settings of Italy.
NOTE Taught in English with LLCU 210/3.0. Students concentrating in Italian submit written assignments, tests and exams in Italian. Normally students will read Italian texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 210/3.0

ITLN 326/3.0 Literature and Cinema
Addresses the various issues relating to the film adaptation of a literary text. The reading of narrative texts, the viewing of films and critical readings are required.
NOTE Taught in English together with LLCU 226/3.0. Students concentrating in Italian submit written assignments, tests and examinations in Italian. Normally students will read Italian texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 226/3.0

ITLN 331/3.0 Survey of Italian Literature I
A survey of Italian literature, through selected texts of representative authors, from the Middle Ages to the eighteenth century.
NOTE Taught in English together with LLCU 233/3.0. Students submit written assignments, tests, and examinations in Italian.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 233/3.0

ITLN 332/3.0 Survey of Italian Literature II
A survey of Italian literature, through selected texts of representative authors, from the eighteenth century to the present.
NOTE Taught in English together with LLCU 234/3.0. Students submit written assignments, tests, and examinations in Italian.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 234/3.0

ITLN 357/3.0 Pirandello's Theatre
An in-depth study of Pirandello's most important plays, and an analysis of his theoretical essays on theatre. Particular attention will be paid to the following plays: *Six Characters in Search of an Author; Each in his Own Way, Henry IV, The Feast of Our Lord of the Ships, Tonight We Improvise, The Mountain Giants.*
NOTE Taught in English together with LLCU 257/3.0. Written work and exams are in Italian. Readings in translation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 257/3.0

ITLN 408/3.0 From Fellini to Benigni
This course will examine social, historic and political realities of the twentieth century through the lens of the unique Italian humorist tradition of film making. The course will focus on films by F.Fellini, L.Comencini, E.Scola, G.Tornatore, G.Salvatores, N.Moretti, R.Benigni and other film makers.
NOTE Taught in English together with LLCU 308/3.0. Students concentrating in Italian submit written assignments, tests, and examination in Italian.
LEARNING HOURS 120 (36L;36T;48P)
EXCLUSION(S) LLCU 308/3.0.

ITLN 415/3.0 Dante
A study of Dante Alighieri's life and poetry, especially the *Vita Nuova* and the *Divina Commedia*.
NOTE Taught in English together with LLCU 215/3.0. Students concentrating in Italian submit written assignments, tests and examinations in Italian. Normally they will read Italian texts in the original.
LEARNING HOURS 120 (36L;84P)
EXCLUSION(S) LLCU 215/3.0.

ITLN 432/3.0 From the Romantics to D'Annunzio
The course will focus on the study of Italian Romanticism and its relation to English, German, Spanish and French Romanticism. The rise of Realism and Decadentism will also be discussed and examined.
NOTE Taught in English together with LLCU 232/3.0. Students concentrating in Italian submit written assignments, tests and examinations in Italian. Normally students will read Italian texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE ITLN 205/3.0.
EXCLUSION(S) LLCU 232/3.0.

ITLN 501/3.0 Letteratura italiana: Temi scelti
Seminar course on topics in Italian literature. Course details to be announced on website.
PREREQUISITE Permission of the Department of Languagues, Literatures and Cultures.

ITLN 502/3.0 Letteratura italiana: Studi indipendenti
Reading courses in specialized themes of Italian literature to meet the needs of advanced students for whom a seminar course is not available. Course details to be announced on website.
PREREQUISITE Permission of the Department of Languagues, Literatures and Cultures.

JAPN 100/6.0 Introductory Japanese I

For students without any previous knowledge of Japanese. Introduction to the basic structural patterns of the language and intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials. Students are expected to study individually on a regular basis with the aid of an audio tape in addition to the four hours of classroom work per week.

NOTE Students will have their level of competence assessed by the Department of Languages, Literatures and Cultures in September.

NOTE Students with previous knowledge of the language or who have studied Japanese will not be permitted to enrol.

PREREQUISITE Level 1 or (Level 2 and a GPA of 1.90).

JAPN 200/6.0 Introductory Japanese II

Continued study of the structural patterns of the language, with intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials. Students are expected to study individually on a regular basis with the aid of an audio tape in addition to the four hours of classroom work per week.

NOTE Students with previous study background must take a placement test during orientation week.

PREREQUISITE A grade of C in JAPN 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

JAPN 301/3.0 Intermediate Japanese I

Intermediate study of the structural patterns of the language, with intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials.

NOTE Students with previous study background must take a placement test during orientation week.

PREREQUISITE A grade of C in JAPN 200/6.0 or permission of the Department of Languages, Literatures and Cultures.

EXCLUSION(S) JAPN 300/6.0; JAPN 302/3.0

JAPN 302/3.0 Intermediate Japanese II

Intermediate study of the structural patterns of the language, with intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials.

NOTE Students with previous study background must take a placement test during orientation week.

PREREQUISITE A grade of C in JAPN 301/3.0 or permission of the Department of Languages, Literatures and Cultures.

EXCLUSION *JAPN 300/6.0*; JAPN 301/3.0

JWST 301/3.0 Topics in Jewish Studies I
A topic of current interest in Jewish Studies not covered in other available courses. Seminars offered by regular and visiting faculty on topics related to their own research or interest. Consult the Jewish Studies website.

JWST 302/3.0 Topics in Jewish Studies II
A topic of current interest in Jewish Studies not covered in other available courses. Seminars offered by regular and visiting faculty on topics related to their own research or interest. Consult the Jewish Studies website.

JWST 501/3.0 Directed Reading in Jewish Studies I
Directed reading on topics in Jewish Studies not covered in other courses available to the student.

JWST 502/3.0 Directed Reading in Jewish Studies II
Directed reading on topics in Jewish Studies not covered in other courses available to the student.

KNPE 125/3.0 Introduction to Human Physiology
This course provides an introduction to human physiology from the cellular to the systemic level with special emphasis on the systems that adapt to exercise stress. The following areas will be covered: the cell, nervous system, skeletal muscle system, respiratory system, cardiovascular system, neuroendocrine system, and renal system.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 1 or above in a PHED, KINE or HLTH Plan.
EXCLUSIONS IDIS 150/6.0 or (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*

KNPE 153/3.0 Introductory Biomechanics
This course will present the fundamentals of biomechanics which includes an understanding of joint structure and function, forces and moments, tools used to record motion and use of these tools for description of motion and skill evaluation.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 1 or above in a PHED or KINE Plan.

KNPE 167/3.0 Socio-Cultural Dimensions of Sport and Physical Activity
An introduction to sociological thinking about sport and physical activity. Among the topics to be discussed are: an exploration of what constitutes sport and under what conditions; how social relations of class, race, gender, and sexuality shape sport experiences; the business of sport; and the relationship between the media and sport.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 1 or above in a PHED or KINE Plan.

KNPE 203/3.0 Coaching and Leadership in Sport
The course will explore the concepts of coaching and leadership in relation to sport. The course addresses topics such as theoretical models of coaching and leadership, coaching behaviours, coach education, and the role of coaches in promoting performance, participation, and personal development through sport.
LEARNING HOURS 108 (36L;72P)
RECOMMENDATION KNPE 237/3.0.
PREREQUISITE Level 2 or above in a PHED or KINE Plan and KNPE 265/3.0.

KNPE 225/3.0 Advanced Human Physiology
The emphasis will be placed on understanding the concept of homeostasis and the integrated control of cellular and organ responses involved in regulation to maintain homeostasis. Special emphasis will be placed on the systems that respond to exercise stress.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 2 or above and registration in a PHED, KINE or HLTH Plan and KNPE 125/3.0.
EXCLUSIONS IDIS 150/6.0 or (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

KNPE 227/3.0 Exercise Physiology
An introduction to the basic components of physiology as they apply to health, fitness and exercise physiology.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2 or above in a PHED or KINE Plan and KNPE 125/3.0 and KNPE 225/3.0.

KNPE 237/3.0 Child and Adolescent Motor Development
This course is an exploration of behavioural and biological research on physical activity and how it relates to the psychosocial, structural, and physiological development of children between birth and approximately age 13.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2 or above in a PHED or KINE Plan.

KNPE 251/3.0 Introduction to Statistics
An introduction to the analysis of data from real life situations. Covers study design, descriptive and inferential statistics. Topics include probability, t-tests, regression, Chi-square tests, analysis of variance. Emphasis is in the foundation of statistical inference and practical application of statistical methods using statistical software.
LEARNING HOURS 126 (12L;18Lb;48O;48P)
PREREQUISITE Level 2 or above in a PHED, KINE or HLTH plan.
EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0

KNPE 254/3.0 Biomechanical Analysis of Human Movement
Students will learn to apply the knowledge and skills acquired in KNPE 153 to conduct detailed analyses of human movement including how to analyze human movement using information obtained from different measurement tools. Examples will be used to demonstrate how biomechanics can be used to enhance and maintain human health, fitness and performance.
LEARNING HOURS 108 (24L;12T;72P)
RECOMMENDATION ANAT 315/3.0.
PREREQUISITE Level 2 or above in a PHED or KINE Plan and KNPE 153/3.0.

KNPE 255/3.0 Physical Activity, Fitness and Health
An introduction to the interrelationships between physical activity, fitness and health. Current techniques for the measurement of health related fitness components, evaluation of diet, weight loss principles, psychological aspects of fitness and suitable activities for fitness development. Concepts related to prescription of physical activity and exercise counselling are introduced.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2 or above in a PHED or KINE Plan and KNPE 125/3.0.
COREQUISITE KNPE 225/3.0 and KNPE 227/3.0.
EXCLUSIONS HLTH 270/3.0

KNPE 261/3.0 Motor Control and Learning
Provides an introductory understanding of how we control our movements and learn new motor skills. Explores current theories in motor control and learning, as well as the foundational sensorimotor and behavioural evidence that underpin these theories. A focus will be placed on applying this understanding to the rehabilitation of movement disorders and skill acquisition of sport.
LEARNING HOURS 132 (30L;12Lb;6G;84P)
PREREQUISITE Level 2 or above in a PHED or KINE Plan.

KNPE 265/3.0 Psychology of Sport and Exercise
This course will introduce both theoretical and applied/professional aspects of human social behaviour in sport and exercise settings.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 2 or above in a PHED, KINE, or HLTH Plan.
COREQUISITE PSYC 100/6.0.

KNPE 300/3.0 Community-Based Practicum
A community-based practicum for Health Studies students to apply knowledge gained in theory-based courses and develop a range of professional skills. Practicum opportunities vary year to year, subject to availability of an appropriate placement in a relevant workplace setting.
NOTE Students are expected to participate in professional development workshops offered by the SKHS Coordinator and Career Services.
LEARNING HOURS 126 (18G;84Oc;24P)
PREREQUISITE (Level 3 or above and registration in a KINE or PHED Plan) and minimum cumulative GPA of 1.90 and permission of the Coordinator and Undergraduate Coordinator in the School of Kinesiology and Health Studies
EXCLUSIONS HLTH 300/3.0; KNPE 330/4.5; KNPE 346/4.5

KNPE 327/3.0 Exercise Physiology Laboratory
A laboratory experience designed to establish understanding of, and technical skills in, the measurement of human physiological responses and performance capacity in exercise. Students will develop familiarity with tests of physiological function during rest and exercise in preparation for work in human performance, clinical and medical settings.
NOTE Priority given to students in Level 3 of the KINE Specialization Plan followed by students in Level 3 of the PHED Specialization Plan.
LEARNING HOURS 126 (24L;36Lb;6I;12O;48P)
PREREQUISITE Level 3 or above in a PHED or KINE Plan and KNPE 125/3.0, KNPE 225/3.0, and KNPE 227/3.0.

KNPE 330/4.5 Athletic Therapy Field Placement

Under the tutelage of the Coordinator of Athletic Therapy Services, students will complete a field placement that involves assignment to a varsity team as a student trainer. Student trainers are responsible for onsite coverage of the team during competition and possibly during practices. The student trainers are also responsible for the taping needs of athletes on the team, and assisting with assessment and rehabilitation.

NOTE Students must hold valid First Aid/CPR certification and proof of completion of Athletic Therapy experience (36 hours) in second year.

LEARNING HOURS 177 (165Pc; 12P)

PREREQUISITE Level 3 or above in a PHED Specialization or KINE Specialization Plan and (ANAT 315/3.0 and KNPE 331/3.0) and (a GPA of 2.70) and permission of the course coordinator and the Undergraduate Coordinator in the School of Kinesiology and Health Studies.

EXCLUSIONS HLTH 300/3.0; KNPE 300/3.0; KNPE 346/4.5

KNPE 331/3.0 Care and Prevention of Athletic Injuries

The care and prevention of common athletic injuries with emphasis placed on the practical portion of taping and wrapping of athletic trauma.

NOTE Lab materials: estimated cost $15.

LEARNING HOURS 120 (24L;24Lb;72P)

PREREQUISITE Level 3 or above in a PHED or KINE Plan and ANAT 315/3.0 and ANAT 316/3.0.

KNPE 335/3.0 Healthy Aging

This course looks at what happens to the body as we age, including an examination of the physiological, psychological and emotional changes that occur during the aging process. The role of a healthy lifestyle in achieving quality of life as we age is a key perspective.

NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 3 or above in a KINE, HLTH or DIPA.

COREQUISITE HLTH 332/3.0.

KNPE 336/3.0 Community Field Placement in Disability and Physical Activity

Students gain experience assisting adults with a disability to engage in exercise. Students develop an understanding of the nature of disability, the benefits of exercise, factors that promote exercise participation, and appropriate exercise prescription.

NOTE Students must hold valid First Aid/CPR certification and CPIC.

NOTE Uniform $25.

LEARNING HOURS 138 (18S;84Pc;12O;24P)

PREREQUISITE Level 3 or above and (HLTH 200/3.0 or KNPE 255/3.0) and registration in the Certificate in Disability and Physical Activity.

COREQUISITE HLTH 332/3.0.

KNPE 337/3.0 Physical Activity Promotion for Children and Youth

This course explores topics such as theoretical models of motivation, interest, and interpersonal behaviours, and the design, implementation, and provision of inclusive physical activity environments for children/youth. This course emphasizes the application of theory through activity-based classroom sessions and community placements.

NOTE Transportation and other costs directly related to the student (e.g. required Criminal Checks) are the responsibility of the student.

LEARNING HOURS 126 (24L;18Lb;24Oc;60P)

PREREQUISITE Level 3 or above in a KINE or HLTH Plan and (KNPE 237/3.0 or HLTH 270/3.0)

EXCLUSIONS PACT 237/3.0

KNPE 338/3.0 Exploring Active Urban Communities
The goal of this course is to explore the interconnections between active living, natural spaces and the built urban environment. Students will participate in an expedition style learning experience spending a week traveling and learning together as a group; engaging with community members; and partaking in an array of recreational activities.
NOTE An additional fee of approximately $400 is charged to defray cost of transportation, accommodation, and food. Students will need to provide some of their own camping equipment (example; sleeping bag, sleeping pad, rain gear). General equipment for the outdoor education camp school will be provided.
LEARNING HOURS 110 (40G;50Oc;20P)
PREREQUISITE Level 3 or above in a PHED or KINE degree Plan or Health Honours (Medial and Major) Plan.
EQUIVALENCY *PACT 338/3.0*.

KNPE 339/3.0 Advanced Exercise Metabolism
This course focuses on aspects of skeletal muscle energy metabolism related to exercise, with a particular emphasis on the regulation of carbohydrate and fat metabolism and the mechanisms regulating their use as substrates for muscle during rest and exercise.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *KNPE 427/3.0*.
PREREQUISITE Level 3 or above in a KINE Specialization Plan or PHED Specialization Plan and KNPE 225/3.0 and KNPE 227/3.0

KNPE 345/3.0 The Science and Methodology of Sport Training Conditioning Programs
This course focuses on the development of sport conditioning programs from periodization concepts to specific training components and how the components can be integrated to create a comprehensive and balanced athlete training plan. Laboratory sessions will work on skill development applicable to conducting training and conditioning programs.
LEARNING HOURS 126 (36L;18Pc;72P)
PREREQUISITE Level 3 or above in a PHED or KINE Plan and KNPE 227/3.0; Reserved for BPHEH, BSCH KINE students only.
COREQUISITE KNPE 254/3.0.

KNPE 346/4.5 Strength and Conditioning Field Placement
Under the tutelage of the Strength and Conditioning Coordinator, students will complete a field placement that involves a range of practical experiences in the area of strength and conditioning programs for elite athletes. Practical sessions will be rotated weekly in order to provide students with a variety of experiences in program delivery, training sessions, and testing.
NOTE Students must hold valid First Aid/CPR certification and proof of completion of Athletic Therapy experience (36 hours) in second year.
LEARNING HOURS 168 (120Pc;24G;24P)
PREREQUISITE Level 3 or above in a PHED Specialization or KINE Specialization Plan and (ANAT 315/3.0 and KNPE 345/3.0) and (a GPA of 2.70) and permission of the course coordinator and the Undergraduate Coordinator in the School of Kinesiology and Health Studies.
EXCLUSIONS HLTH 300/3.0; KNPE 300/3.0; KNPE 330/3.0

KNPE 352/3.0 Research Skills Development Practicum
A practicum for students in Kinesiology and Physical Education working in the research labs and on research projects of SKHS faculty members. Includes a seminar series covering research topics and methodologies in: Applied Exercise Science, Epidemiology, Health Promotion, Psychology of Sport and Physical Activity, and Sociology of Sport and Health.
NOTE Students will apply for a research-based practicum at the end of their second year.
Recommended for students who intend to complete KNPE 595/6.0.
LEARNING HOURS 140 (12S;80Pc;48P)
PREREQUISITE KNPE 251/3.0; Level 3 in a PHED Specialization or KINE Specialization Plan; and permission of the course coordinator or the Undergraduate Coordinator.
COREQUISITE HLTH 252/3.0.
EXCLUSIONS HLTH 352/3.0

KNPE 354/3.0 Occupational Biomechanics and Physical Ergonomics
An introduction to occupational biomechanics and physical ergonomics. The course will apply principles of biomechanics to describe relationships between job demands, functional/tissue capacities and work-related injury. Demand, capacity and injury risk evaluation tools will also be presented.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above in a KINE or PHED Plan and KNPE 254/3.0.

KNPE 355/3.0 Lifestyle and Cardiometabolic Assessment Laboratory
A lecture/laboratory experience designed to help prepare students to participate in a variety of multidisciplinary clinical and/or professional environments. Concept and skill development pertaining to exercise/lifestyle for general as well as selected special populations will prepare students for experiences in clinical and medical settings.
NOTE Priority given to students in Level 3 of the KINE Specialization Plan followed by students in Level 3 of the PHED Specialization Plan.
LEARNING HOURS 120 (12L;36Lb;72P)
PREREQUISITE Level 3 or above in a KINE or PHED Plan and KNPE 125/3.0, KNPE 225/3.0, KNPE 227/3.0 and KNPE 255/3.0.

KNPE 363/3.0 Team Dynamics in Sport: Theory and Practice
This course explores group dynamics in sport and involves the integration of theory, research, and practice. Topics include team structure (e.g. roles), its processes (e.g., communication), and emergent states (e.g., cohesion). Students will be encouraged to critically analyze the body of research and discuss relevant practical implications.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above in a PHED or KINE Plan and KNPE 265/3.0.

KNPE 365/3.0 Motivational Interviewing for Physical Activity Behaviour Change
Study of strategies to enhance intrinsic motivation and self-regulation for physical activity and health behaviour change in clinical settings. Students will learn and practice motivational interviewing skills for behaviour change in intensive weekly tutorial sessions.
LEARNING HOURS 126 (18L;24T;84P)
PREREQUISITE Level 3 or above in a PHED, KINE or HLTH Plan and PSYC 100/6.0 and (KNPE 265/3.0 or HLTH 315/3.0).

KNPE 367/3.0 Fitness, the Body and Culture
This course looks at the ways that notions of fitness are tied to historically specific ideas about the body. The course focuses on ideas about race, class, gender, ability and sexuality while addressing the politics of fitness and exercise and their relationship to social, economic, and cultural institutions.
LEARNING HOURS 129 (36L;9Lb;84P)
PREREQUISITE KNPE 167/3.0, or (SOCY 226/3.0 and SOCY 227/3.0) or *SOCY 221/6.0*.

KNPE 397/3.0 Special Topics in Kinesiology
Intensive coverage of topics that are current and/or of special interest in the area of Kinesiology. Offered periodically.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and registration in a KINE or PHED Plan.

KNPE 400/3.0 Professional Issues in Allied Health
Through problem-based learning, students will gain an understanding of what it means to be an applied health care professional. Students will work collaboratively on case studies and develop critical thinking skills to prepare them as they transition to their careers as health care practitioners.
LEARNING HOURS 120 (24L;12G;84P)
PREREQUISITE Level 4 in a KINE Specialization Plan, PHED Specialization Plan, or HLTH Major Plan.

KNPE 425/3.0 Physiology of Stress
An in-depth exploration of physiological responses to primarily psychological sources of stress. An emphasis is placed on understanding the interaction between stress responses and function/health and the action of selected stress management techniques.
LEARNING HOURS 120 (36L/S;84P)
PREREQUISITE (Level 4 in a PHED Specialization or KINE Specialization Plan) and KNPE 225/3.0 and KNPE 227/3.0.
EXCLUSIONS KNPE 493-001 (2015-16).

KNPE 429/3.0 Skeletal Muscle Oxygen Delivery: Demand Matching in Exercise
The focus of this course is to develop an advanced understanding of cardiovascular and respiratory responses in meeting oxygen demand of exercising skeletal muscle. Topics: oxygen delivery in exercising skeletal muscle metabolism/contraction; compromised exercise performance in selected diseases; mechanisms of enhancement of exercise tolerance.
LEARNING HOURS 132 (36L;12T;12O;72P)
PREREQUISITE Level 3 or above in a PHED Specialization or KINE Specialization Plan and KNPE 125/3.0 and KNPE 225/3.0 and KNPE 227/3.0.

KNPE 430/4.5 Athletic Therapy Internship
Working with the Coordinator of Athletic Therapy (AT), and building on the practical skills and knowledge acquired in KNPE 330/4.5, students will complete an Athletic Therapy internship. AT interns will be responsible for serving as a mentor to student trainers and onsite trainers in the Athletic Therapy clinic and at varsity events. They will also serve as teaching assistants in the laboratory component of KNPE 331/3.0.
NOTE Valid First Aid/CPR Certification required.
LEARNING HOURS 189 (165Pc;24P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and KNPE 330/4.5 and (a GPA of 2.70) and permission of the course coordinator and the Undergraduate Coordinator in the School of Kinesiology and Health Studies.

KNPE 433/3.0 Global Sport and Disability
The UN recognizes the important role of sport participation in promoting physical and mental health as well as fundamental human rights. This course will critique the use of sport and recreation on a global level as a tool for improving the lives of people with disabilities with the goal of removing barriers and enabling participation for all.
NOTE Only offered at the Bader International Study Centre.
LEARNING HOURS 125 (27L;8S;4Pc;8G;16Oc;62P)
PREREQUISITE Level 4 or above and [(registration in PHED Specialization or KINE Specialization or HLTH Major or Medial Plan) or (registration in the Certificate in Disability and Physical Activity and HLTH 332/3.0) or (registration at the Bader International Study Centre)].
EXCLUSION(S) HLTH 497/3.0 (2015-16)

KNPE 436/3.0 Advanced Placement in Disability and Physical Activity
Students gain leadership experience in an exercise program for adults with a disability. Students develop an understanding of the operational considerations to run an adapted exercise program including the necessary human and financial resources, and the skills to develop, implement, and evaluate exercise opportunities for persons with a disability.
NOTE Students must hold valid First Aid/CPR certification and CPIC.
NOTE Uniform $25.
LEARNING HOURS 138 (18S;84Pc;12O;24P)
PREREQUISITE Level 4 and or above and a minimum of a B on the practical assessment in KNPE 336/3.0. Registration in the Certificate in Disability and Physical Activity and permission of the course coordinator and the undergraduate Chair in the School of Kinesiology and Health Studies is required.

KNPE 439/3.0 Critical Appraisal and Translation of Muscle Physiology Research
In this course students will read, evaluate and discuss recent scientific literature in the areas of exercise metabolism, exercise nutrition, and performance. Students will develop a systematic approach to scientific writing and write translational literature that accurately communicates recent scientific findings to the general population.
LEARNING HOURS 132 (36S;96P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and KNPE 339/3.0.
EXCLUSIONS KNPE 493/3.0 (Fall Term 2016-17)

KNPE 446/4.5 Strength and Conditioning Internship
Building on the skills and knowledge acquired in KNPE 346/3.0, students will complete a Strength and Conditioning (SC) internship with a varsity team. SC interns will be responsible for the design and implementation of training programs, functional screening, and athlete injury management. They will also assist with the Complete Athlete program and contribute to the laboratory component of KNPE 345/3.0 as TAs.
NOTE Valid First Aid/CPR Certification required.
LEARNING HOURS 168 (120Pc;24G;24P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and KNPE 346/4.5 and (a GPA of 2.70) and permission of the course coordinator and the Undergraduate Chair in the School of Kinesiology and Health Studies.

KNPE 450/3.0 Ergonomics
This is an interdisciplinary lecture/seminar course designed to provide a comprehensive overview of ergonomics emphasizing applications to product design and prevention of musculoskeletal injuries. The focus includes anthropometry, workplace design, and biomechanical and other human factors. Ergonomic assessment methodologies will be used to assess design features and possible musculoskeletal problems.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 4 in a KINE, PHED, or HLTH Plan and (ANAT 101/3.0 or ANAT 315/3.0) and (KNPE 254/3.0 or 6.0 units in PHYS at the 100-level).

EXCLUSIONS MECH 495/3.0; PT 419/3.0; RHBS 428/3.0

KNPE 454/3.0 Clinical Biomechanics
This advanced course will present the general biomechanical techniques used in clinical evaluation. This will be followed by assessment techniques, how assessment is done, and how the results of assessment can be used to evaluate performance and the effectiveness of treatment.
LEARNING HOURS 132 (18L;18S;12Lb;84P)
PREREQUISITE Level 3 or 4 in a PHED Specialization or KINE Specialization Plan and KNPE 254/3.0

KNPE 455/3.0 Advanced Physical Activity and Health
Provides advanced understanding of concepts related to the use of physical activity/lifestyle as a strategy for reducing morbidity and mortality in general and selected special populations in preparation to participate in a variety of multidisciplinary clinical and/or professional health care environments.
NOTE This course will normally be offered in academic years starting with an odd number (eg., 2013-2014). Students in a KINE Plan will have priority over students in a PHED Plan.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above in a KINE Specialization Plan or PHED Specialization Plan and KNPE 125/3.0, KNPE 225/3.0, KNPE 227/3.0 and KNPE 255/3.0.

KNPE 456/3.0 Survey of Research and Literature in Kinesiology and Physical Education
Independent study involving a critical review of the literature on an approved topic of specialization in health enhancement, disease prevention and human performance. Students must arrange for a faculty adviser approved by the School of Kinesiology and Health Studies.
LEARNING HOURS 126 (6I;120P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan; permission of the supervisor and the Undergraduate Coordinator.

KNPE 459/3.0 Clinical Exercise Physiology
An in-depth coverage of principles of health screening, exercise testing and exercise prescription for individuals with cardiovascular, metabolic and pulmonary diseases. An emphasis is placed on understanding disease pathophysiology and how this interacts with the acute response to exercise and the adaptation to training.
NOTE This course will normally be offered in academic years starting with an even number (e.g., 2012-2013). Students in a KINE Specialization Plan will have priority over students in a PHED Specialization Plan.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION KNPE 255/3.0.
PREREQUISITE Level 3 or above in a PHED Specialization or KINE Specialization Plan and KNPE 125/3.0 and KNPE 225/3.0 and KNPE 227/3.0.

KNPE 463/6.0 Community-Based Physical Activity Promotion
Program planning and evaluation for the promotion of physical activity in the community, workplace, school, and health care settings. Using a combination of lecture, group discussions, and a community-based placement, students will acquire the skills and understand the philosophies used in promoting physical activity involvement in the community.
LEARNING HOURS 244 (72S;72Pc;100P)
RECOMMENDATION HLTH 315/3.0.
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and KNPE 265/3.0 and a GPA of 2.90 in all KNPE courses.

KNPE 465/3.0 Sport Participation and Performance
An exploration of the theoretical and empirical work in the development of sport participation and performance. Specific discussion of the developmental aspects and learning conditions that allow individuals to maintain participation and reach high levels of excellence in sport will be included.
LEARNING HOURS 120 (36S;84P)
RECOMMENDATION KNPE 237/3.0
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and a grade of B in KNPE 265/3.0.

KNPE 473/3.0 Sport and Culture
This course draws on critical theories to look at sport in Western cultures. It examines sport's contribution to systems of gender, race, class, sexuality and ability. Topics include sport's relationship to nationalism, media, commodification, globalization, and the environment.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan.

KNPE 491/3.0 Special Project in Kinesiology and Physical Education
This is an independent project in an area of specialization in health enhancement, disease prevention and human performance. Students must arrange for a faculty advisor approved by the School of Kinesiology and Health Studies to oversee their project.
LEARNING HOURS 126 (6I;120P)
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan and permission of the supervisor and the Undergraduate Coordinator.

KNPE 493/3.0 Advanced Topics in Kinesiology
Intensive coverage of advanced topics that are current and/or of special interest in Kinesiology.
NOTE Offered periodically by visiting professors or members of faculty. Students should check with the School regarding availability of this course.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in a PHED Specialization or KINE Specialization Plan.

KNPE 595/6.0 Honours Thesis in Kinesiology and Physical Education
An independent study involving a research proposal and project on an approved topic in the area of health enhancement, disease prevention, and human performance. The research proposal will be completed in the Fall Term and research project in the Winter Term. Students must arrange for a full-time faculty advisor in the School of Kinesiology and Health Studies.
LEARNING HOURS 252 (12I;240P)
RECOMMENDATION HLTH 252/3.0.
PREREQUISITE Level 4 in a PHED Specialization or KINE Specialization Plan with a GPA of 3.50; permission of the supervisor and Undergraduate Coordinator in the School of Kinesiology and Health Studies.

LANG 101/3.0 Language Acquisition - Beginning Level I
For students studying abroad or at a Canadian University who wish to learn a modern language other than English and who have no previous knowledge of that language. A basic level of understanding, speaking, reading, and writing in the language. An introduction to elements of culture of the countries in which the language is spoken.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *LANG P10/3.0*.

LANG 102/3.0 Language Acquisition - Beginning Level II
For students studying abroad or at a Canadian University who wish to learn a modern language other than English and who have no previous knowledge of that language. A basic level of understanding, speaking, reading, and writing in the language. An introduction to elements of culture of the countries in which the language is spoken.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *LANG P11/3.0*.

LANG 201/3.0 Language Acquisition - Advanced Level I
For students studying abroad or at a Canadian University who wish to learn a modern language other than English and who have acquired a basic knowledge of that language. An increased emphasis on the study of the grammatical structures of the language and on the acquisition of vocabulary. Practice in speaking, reading, and writing.
NOTE A language placement test will be administered by the host university.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *LANG 120/3.0*.
PREREQUISITE (LANG 101/3.0 and LANG 102/3.0) or (*LANG P10/3.0* and *LANG P11/3.0*) or permission of the Department.

LANG 202/3.0 Language Acquisition - Advanced Level II
For students studying abroad or at a Canadian University who wish to learn a modern language other than English and who have acquired a basic knowledge of that language. An increased emphasis on the study of the grammatical structures of the language and on the acquisition of vocabulary. Practice in speaking, reading, and writing.
NOTE A language placement test will be administered by the host university.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *LANG 121/3.0*.
PREREQUISITE (LANG 101/3.0 and LANG 102/3.0) or (*LANG P10/3.0* and *LANG P11/3.0*) or permission of the Department.

LATN 110/6.0 Introductory Latin
Fundamentals of grammar, syntax and etymology for students with no or little knowledge of Latin; provides sufficient background to read Latin prose and poetry.
NOTE Normally not open to students with 4U Latin.
LEARNING HOURS 276 (72L;24T;180P)

LATN 209/6.0 Intermediate Latin
Review of grammar followed by a study of representative works of Ovid and other authors. In addition to developing facility in translation, study of literary content and background of authors.
NOTE A student with 4U Latin may alternatively use this as a prerequisite and should contact the Department for permission to register in the course.
LEARNING HOURS 282 (72L;210P)
PREREQUISITE LATN 110/6.0.

LATN 321/3.0 Latin Prose
Selected passages of Latin prose, usually drawn from oratory, history, and philosophy, read in the original Latin and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with LATN 421/3.0.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE A grade of C in LATN 209/6.0 or permission of the Department of Classics.

LATN 322/3.0 Latin Verse
Selected passages of Latin verse, usually drawn from epic, lyric, elegy, and drama, read in the original Latin and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with LATN 422/3.0.
LEARNING HOURS 126 (36L;90P)
PREREQUISITE A grade of C in LATN 209/6.0 or permission of the Department of Classics.

LATN 327/6.0 Medieval Latin
Representative works of prose and poetry to illustrate various aspects of the history and culture of the period.
LEARNING HOURS 264 (72L;192P)
PREREQUISITE A grade of C- in LATN 209/6.0 or permission of the Department of Classics.

LATN 421/3.0 Advanced Latin Prose
Selected works of Latin prose, usually drawn from oratory, history, and philosophy, read in the original Latin and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with LATN 321/3.0.
LEARNING HOURS 141 (36L;105P)
PREREQUISITE A grade of C in LATN 321/3.0 or permission of the Department of Classics.

LATN 422/3.0 Advanced Latin Verse
Selected works of Latin verse, usually drawn from epic, lyric, elegy, and drama, read in the original Latin and commented upon for their linguistic, literary, and historical significance.
NOTE This course is normally co-taught with LATN 322/3.0.
LEARNING HOURS 141 (36L;105P)
PREREQUISITE A grade of C in LATN 322/3.0 or permission of the Department of Classics.

LATN 431/6.0 Research Course
Detailed study of certain aspects of Latin Literature and Roman history through directed readings and essay assignments.
LEARNING HOURS 240 (24I;216P)
PREREQUISITE A minimum GPA of 1.90 in 6.0 units from LATN at the 300 level.

LATN 591/0.0 General Examination

LIBS 100/3.0 Origins and Practices of Liberal Arts

The Liberal Arts comprise three foundational disciplines: humanities, social sciences, and natural sciences. Such divisions have shaped everything from the organization of universities to the ways in which we organize and understand knowledge in our daily lives. The course will provide a background for each of the three liberal disciplines in ways that explain their historical origins and development over time, including their modern applications.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 120 (48O;72P)

LIBS 300/6.0 The Liberal Arts in the Contemporary World

A summative capstone course for the minor in Liberal Studies that will bring the humanities, social sciences, and natural sciences to bear on the study and interpretation of a contemporary global issue.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 240 (96O;144P)

PREREQUISITE Level 3 and registration in a LIBS Plan and LIBS 100/3.0.

LING 100/6.0 Introduction to Linguistics
This course provides an introduction to the linguistic study of language. Topics covered include phonetics, phonology, morphology, and syntax. The course focuses on universal characteristics of language and draws on examples from a variety of languages.
LEARNING HOURS 240 (72L;24T;144P)

LING 202/3.0 Canadian English
This course investigates the distinctive characteristics of Canadian English as it is spoken and written today. Topics include historical development, regional dialects, and current changes. Students will have access to the extensive bibliographic and computer corpus resources of the Strathy Language Unit.
LEARNING HOURS 120 (36L;84P)

LING 205/3.0 Language and Power
This course examines how language reflects and creates power relations in society. Students will learn fundamentals in the linguistic study of language usage and style, and examine language and power in areas such as language socialization, language and age, language and gender, language and education, and language and culture.
LEARNING HOURS 120 (36L;84P)

LING 210/3.0 Language Acquisition and Learning
How do children acquire their first language? How are second/subsequent languages learned? Topics include first language stages of learning, bilingualism, language disorders, theories of learning, individual differences, interlanguage, and language instruction, including contexts of heritage languages and language revitalization.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 2.

LING 310/3.0 Phonetics
This course provides a foundation in the study of speech sounds. The focus is on articulatory phonetics, how to classify and transcribe different sounds of speech according to their articulatory features. The course also offers an introduction to acoustic phonetics and feature geometry theory.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE LING 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

LING 320/3.0 Phonology
Principles and methods of modern generative phonology. Examination of the formal properties of the sound systems of languages. Current theoretical controversies as well as particular synchronic and diachronic problems in a variety of languages.
LEARNING HOURS 120 (18L;18G;84P)
PREREQUISITE LING 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

LING 330/3.0 Morphology
This course provides a foundation in principles of morphological analysis. Topics covered include inflectional and derivational morphology as well as the morphology-syntax and morphology-phonology interfaces. Emphasis is placed on practical discovery method, and formal analysis and explanation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE LING 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

LING 340/3.0 Syntax
This course provides a foundation in syntactic analysis and explanation. The course focuses on the relation between structure and meaning, and assumes the framework of Universal Grammar Theory. Topics covered include thematic roles, case, anaphora, NP movement and WH movement.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE LING 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

LING 350/3.0 Introduction to Historical Linguistics
This course introduces the linguistic study of historical language change. The focus is on principles and method in the study of phonological, morphological and syntactic change. Case studies will be drawn from a cross-section of languages, including but not limited to members of the Indo-European language family.
LEARNING HOURS 120 (18L;18G;84P)
PREREQUISITE LING 320/3.0 or permission of the Department of Languages, Literatures and Cultures.

LING 360/3.0 Comparative Morpho-Syntax
This course examines morpho-syntactic variation across languages. Topics covered include argument structure, derivation versus compounding, case, anaphora, determiners, clause typing and related phenomena. The course assumes the framework of Universal Grammar theory with a focus on how comparative studies in morpho-syntax inform linguistic analysis and theory.
PREREQUISITE LING 330/3.0 and LING 340/3.0 or permission of the Department of Languages, Literatures and Cultures.

LING 370/3.0 Living Languages: Resilience and Revitalization in Practice
This course examines how Indigenous and minority peoples globally are responding to the potential loss of their languages. In addition to the social, political, and economic causes and impacts of language loss, we will examine how diverse groups of people are resisting this loss. Strategies for reclaiming and strengthening languages are analyzed.
LEARNING HOURS 120(36L;84P)
PREREQUISITE One of LLCU 110/3.0, LING 100/6.0, or LING 205/3.0.

LING 400/3.0 Linguistic Analysis and Argumentation
This course explores the forms of reasoning and evidence used in constructing and evaluating scientific arguments in linguistics, through discussion of articles that represent significant innovations and controversies in linguistic theory. Emphasis is on the structure of arguments, rather than on the analysis of individual languages or phenomena.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE (LING 320/3.0 and LING 340/3.0) or permission of the Department of Languages, Literatures, and Cultures.

LING 415/3.0 Semantics
The aim of this course is to provide students with an understanding of the fundamental concepts and tools of analysis in semantics. Students will learn to recognize and identify different features of word meaning and a variety of semantic relations between words and sentences. The characteristics of logical relations and truth-functional semantics and the role these play in the interpretation of words and sentences will be discussed.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE LING 340/3.0 or permission of the Department of Languages, Literatures, and Cultures.

LING 435/3.0 Advanced Morpho-Syntax
This course addresses advanced topics in the interface between morphology and syntax from comparative perspective, drawing on evidence from different languages. Readings are selected from the current research literature, and the class includes a substantial component of student presentations and class discussion.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE LING 330/3.0 and LING 340/3.0.

LING 475/6.0 Field Methods in Linguistics
This course provides instruction in method and procedure in linguistic fieldwork. The course investigates the syntax, morphology and phonology of a language unfamiliar to the participants. The instruction is structured around weekly fieldwork sessions dedicated to data collection working with a native speaker of the language, and weekly workshops devoted to analysis. The course contains an intensive independent study component.
LEARNING HOURS 210 (18S;18Lb;6T;168P)
PREREQUISITE LING 310/3.0 and LING 320/3.0 and LING 330/3.0 and LING 340/3.0.

LING 490/3.0 Special Topics in Linguistics
This is a seminar course on a selected topic relating to linguistics. Content varies from year to year. For detailed information, consult the Department of Languages, Literatures and Cultures web page.
LEARNING HOURS 120(36S;84P)
PREREQUISITE 9.0 units at the 300 level or above in LING.

LING 501/3.0 Directed Readings in Linguistics

Upon agreement with a qualified instructor, this course may be taken by an upper-year student in Linguistics to explore a specific area or methodology. Regular meetings, directed readings.

LEARNING HOURS 120 (12I;108P)

PREREQUISITE 6.0 units at the 300 level or above in LING) and (a GPA of 3.50) and permission of the Department of Languages, Literatures and Cultures.

LING 505/9.0 Honours Thesis in Linguistics

Upon agreement with a qualified instructor, students with fourth year standing in Linguistics may take this course to develop and demonstrate research skills in Linguistics. Working under supervision, students will choose a specific topic in a particular language, prepare a research proposal which involves the collection and analysis of data, carry out the research, and write a thesis based on the results. Fall and Winter Terms.

LEARNING HOURS 348 (36I;312P)

PREREQUISITE Level 4 in a LING Plan and (12.0 units at the 300 level or above in LING) and (a GPA of 3.50) and permission of the Department of Languages, Literatures and Cultures.

LISC 171/3.0 Social and Physical Determinants of Health and Disease
This course will use an evidence-based approach to address the impact of social and environmental exposures and circumstances on health at both an individual and population level.
NOTE Only open to LISC and BCHM students.
EXCLUSIONS GLPH 171/3.0; HLTH 101/3.0; HLTH 102/3.0; GPHY 339/3.0

LISC 173/3.0 History and Philosophy of Health and Healthcare
Multidisciplinary course organized around five major fields of scientific endeavour: anatomy, physiology, pathology, pharmacology, and population and global health.
NOTE Only open to LISC and BCHM students.
EXCLUSIONS BMED 173/3.0; PHIL 201/3.0

LISC 270/3.0 Fundamentals of Health Research Methodology
Introduction to fundamentals of health-related research methods with a focus on developing critical reasoning skills. Using examples from a wide range of health-related research topics, students will gain familiarity and skills to assess primary literature at a basic level.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 2nd year (Level 2) standing and one of STAT 263/3.0; BIOL 243/3.0; STAM 200/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0 or permission of the instructor. NOTE: Proof of completion of CORE (Course on Research Ethics) must be provided in the first week of class.
EXCLUSIONS No more than 3.0 units from BMED270; SOCY210; GPHY240; LISC 270/3.0
No more than 3.0 units from BMED270; HLTH252; LISC 270/3.0
No more than 3.0 units from BMED270; LISC 270/3.0; PSYC203
No more 3.0 units from BMED 270; EPID 301; HLTH 323; LISC 270/3.0

LISC 271/3.0 Global and Population Health
Emphasis will be placed on population health, instead of the health of individuals. Population and Global health prioritize partnerships and resource sharing, instead of unilateral relationships, and focuses on advocacy.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 2nd year (Level 2) standing or permission of the instructor.
EXCLUSIONS GLPH 271/3.0

LISC 300/3.0 The Process of Discovery in the Biomedical Sciences
Teams of students will identify the critical questions that must be answered to resolve major controversies or gaps of knowledge that impede the application of fundamental principles in the Life Sciences to health care. The end product will be a written report and public presentation that is accessible to a wide audience.
NOTE Restricted to students registered in Level 3 or above of a LISCor BCHM Specialization or Major Plan or BIOL Plan, or PSYC Plan. Limited enrollment available to BIOL and PSYC students.
NOTE Limited enrollment available to BIOL and PSYC students.
LEARNING HOURS 126 (6L;6S;33G;33O;48P)
PREREQUISITE Level 3 and above[registration in a LISC or BCHM Honours Plan (LISC-M-BSH; LISC-P-BSH; BCHM-M-BSH; BCHM-P-BSH) or BIOL or PSYC Plan].

LISC 373/3.0 Health Ethics, Law and Policy
Introduction to ethical, legal and regulatory requirements for people working in the health professions.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 3rd year (Level 3) standing
EXCLUSIONS BMED 373/3.0

LISC 383/3.0 Advanced Research Methodologies
Students will develop an understanding of the three primary types of research employed in health sciences: Experimental quantitative, observational quantitative, and qualitative.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 3rd year (Level 3) standing and (BMED 270/3.0 or EPID 301/3.0 or HLTH 252/3.0 or PSYC 203/3.0 or SOCY 210/3.0) or permission of the instructor.
EXCLUSIONS BMED 383/3.0

LISC 385/3.0 Biohacking and Gerontechnology
Examines technologies that are in use/evolving in the aging support and anti-aging arsenal, including gerontechnology and anti-aging technologies.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 3rd year (Level 3) standing, or permission from the instructor.
EXCLUSIONS GLPH 385/3.0

LISC 390/3.0 Integrated Life Sciences Laboratory I
Students will learn a number of different laboratory techniques, developing skills in scientific methodology, data acquisition, and interpretation. Students will also attain skills in critical thinking and hypothesis development, as well as gain experience in writing a laboratory report, and participating in research presentations.
NOTE Priority will be given to students registered in a LISC Specialization Plan.
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or one of (PHAR 230/3.0 or PHAR 270/3.0 or PHAR 340/3.0 or LISC 391/3.0) or *PHGY 210/6.0 or PHGY 214/6.0*.
EXCLUSION(S) BMED 384/3.0.

LISC 391/3.0 Integrated Life Sciences Laboratory
An intermediate laboratory course on the Physiology and Pharmacology of Cardiorespiratory Sciences and Neuroscience. Students develop skills to acquire and evaluate data and methods. Critical thinking skills are used for the development of arguments, assumptions, and information required to evaluate concepts and hypotheses.
NOTE Priority will be given to students registered in a LISC Specialization Plan.
LEARNING HOURS 108 (36Lb;36O;36P)
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 214/6.0*.
EXCLUSION(S) BMED 384/3.0

LISC 426/3.0 Current Concepts in Sensorimotor Neuroscience
A multi-disciplinary course exploring advanced concepts of sensorimotor integration from a systems neuroscience perspective. Topics include the neural basis of perception, action selection, reinforcement learning, and motor control. Students will learn to critically evaluate scientific literature and present these concepts to classmates.
PREREQUISITE Level 4 and registration in the LISC Major or Specialization Plan and a GPA of 2.50 and (NSCI 323/3.0 or NSCI 324/3.0).

LISC 471/3.0 Advanced Global and Population Heath
Students will take knowledge gained from GLPH 271/3.0 or LISC 271/3.0, and apply it in this course, which will focus on more advanced topics of population and global health, as well as provide experiential learning.
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 4th year (Level 4) standing + GLPH 271/3.0 or permission of instructor
EXCLUSIONS GLPH 471/3.0

LISC 483/3.0 Advanced Topics in Infectious Disease
This course examines basic principles of infectious diseases, including epidemiology, pathophysiology, transmission, and control of infectious agents, with an emphasis on antimicrobial therapy and resistance.
NOTE Only open to LISC and BCHM students.
PREPREQUISTE Minimum 4th year (Level 4) standing and one of (MICR320/3.0; MICR 270/3.0; MICR 271/3.0; MICR 221/3.0), or permission from the instructor.
EXCLUSIONS BMED 483/3.0

LISC 493/3.0 Global Health Practice
This course will strengthen students' abilities to respond to a community's health needs through a practical service learning position with an approved local or international community health organization
NOTE Only open to LISC and BCHM students.
PREREQUISITE Minimum 4th year (level 4) standing and GLPH 271/3.0.
EXCLUSIONS GLPH 493/3.0

LLCU 101/3.0 Beginning Indigenous Language and Culture I
Offers a basic level of understanding, speaking, reading and writing for students with no knowledge of the language. The specific language will be announced on the Department of Languages, Literatures and Cultures web page.
LEARNING HOURS 120 (36S;84P)

LLCU 102/3.0 Beginning Indigenous Language and Culture II
Continuation of LLCU 101/3.0: offering a basic level of understanding, speaking, reading and writing in the language. The specific language will be announced on the Department of Languages, Literatures and Cultures web page.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE LLCU 101/3.0 in same language.

LLCU 103/3.0 Beginning Language and Culture I
A topics course on a language not already offered within the department. Offers a basic understanding, speaking, reading and writing for students with no knowledge of the language. The specific language will be announced on the Department of Languages, Literatures and Cultures web page.
LEARNING HOURS 120 (36L;84P)

LLCU 104/3.0 Beginning Language and Culture II
LLCU 104/3.0 is a topics course on a language not already offered within the department. It is a continuation of LLCU 103/3.0 building on the speaking, reading and writing of the language. The specific language will be announced on the Department of Languages, Literatures and Cultures web page.
LEARNING HOURS 120 (36L;72P)
PREREQUISITE LLCU 103/3.0

LLCU 110/3.0 Linguistic Diversity and Identity
This course explores the diversity of human languages, and the nature of linguistic identity across and within speech communities from a linguistics perspective. Topics that will be covered include: language families; linguistic typology; writing systems; language endangerment and revitalization; and situations of language contact, bilingualism, and sociolinguistic variation.
LEARNING HOURS 120 (36L;84P)

LLCU 111/3.0 Introduction to Cultures
This course offers an overview of the theoretical framework behind the study of intercultural communication and proposes practical applications of these theories, including in-class guest speakers and a 4-session workshop on Intercultural Competence by the Queen's University International Centre (QUIC). Students will obtain a Certificate by QUIC.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)

LLCU 200/3.0 Semiotics: Interpreting the World
Semiotics is the discipline that studies signs and how these participate in creating meaning and communication. This course focuses on the theoretical system on which semiotic analyses is based (F. de Saussure, C. Peirce, R. Barthes, and others) and will be devoted to various subject areas such as literature, art, film, theatre, and other fields.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 201/3.0 Introduction to Romance Philology
This course aims at familiarizing students from diverse programs with some of the fundamental concepts of Romance Philology. The analysis of the first literary and non-literary documents of the Romance languages will be a fundamental part of the course together with the understanding of the evolution of Latin into Vulgar Latin and its differentiation into Romance languages. Particular attention will be paid to Spanish, Italian, and French.
LEARNING HOURS 120 (36L;84P)
EXCLUSIONS *IDIS 201/6.0*
EQUIVALENCY *IDIS 201/6.0.*

LLCU 203/3.0 Cultural Anthropology
Cultural anthropology provides an understanding of the range of human cultural and social diversity – the many ways that humans organize their lives. This course covers the main theories, methods, and topics in the field (e.g. economy, politics, religion, power, identity, environment, health), with a focus on major contemporary social problems.

LEARNING HOURS 120 (36L;84P)
PREREQUISITES Level 2 or permission of the Department of Languages, Literatures and Cultures

LLCU 205/3.0 The Cultures of a Nation
This course will introduce major themes and concepts in the cultures of a specific nation with an emphasis on understanding and examining the important social, historical and cultural contexts of the country and its people. Topics may include art, film, economy, religion, and politics. The specific 'Nation' details to be announced on the Languages, Literatures and Cultures website.
LEARNING HOURS 120 (36L;36T;48P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 206/3.0 Rebel Cities
This course examines cities from a cultural perspective, focusing through film to see how different urban spaces have, at different moments in time, been incubators of great social changes. It seeks to understand why, when, and with what result such upheavals occur.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Culture

L**LCU 207/3.0 Representations of Business in the Movies**
How are businesses and business people represented in film? This course draws from a range of international films to analyze how business at different levels of development in different places in the world is represented on screen. It asks why Hollywood and other film industries seem to heroize and demonize their usually male, White entrepreneurs. And it asks how such depictions matter.
LEARNING HOURS 120 (36L;24G;60P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 209/3.0 Rio de Janeiro: the Marvelous City
This course goes beyond the typical representations of Rio de Janeiro to provide an understanding of the complex social, political, economic, and cultural history that have shaped the city's development and character. Focus is on the twentieth century, but provides the necessary historical background to understand the dynamics of life in Rio.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 132 (48O;84P)
PREREQUISITE Level 2 or above.

LLCU 210/3.0 Italy and the Classical Tradition
The ancient Greek and Roman tradition in literature, art and the politics of Italy from the Middle Ages to the 18th century. Texts and works of art will be studied in the context of the historical, cultural and political settings of Italy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 310/3.0

LLCU 213/3.0 The Social History of Organized Crime in Canada
Students will analyze and understand the most important forms of organized crime present in Canada. Its history and evolution are defined, in an attempt to interpret the relationship between major criminal organizations and economic, social, cultural, political, and demographic changes, both domestically and internationally.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 214/3.0 Mafia Culture and the Power of Symbols, Rituals and Myth
The course will analyze the cinematic representation of the Mafia and other criminal organizations, such as Yakuza, Triads, Vory V Zakone. The course will focus on how North American cinema (Hollywood) often glorifies the mafiosi's lifestyle. The goal is the deconstruction of the romantic portrayal of the gangster life style created on screen.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 120 (36L;36T;48P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 215/3.0 Dante
A study of Dante Alighieri's life and poetry, especially the Vita Nuova and the Divine Comedy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 415/3.0

LLCU 226/3.0 Italian Literature and Cinema
Addresses the various issues relating to the film adaptation of an Italian literary text. The reading of narrative texts, the viewing of films and critical readings are required.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 326/3.0

LLCU 232/3.0 From the Romantics to D'Annunzio
The course will focus on the study of Italian Romanticism and its relation to English, German, Spanish and French Romanticism. The rise of Realism and Decadentism will also be discussed and examined.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 432/3.0

LLCU 233/3.0 Survey of Italian Literature I
A survey of Italian literature, through selected texts of representative authors, from the Middle Ages to the eighteenth century.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 331/3.0

LLCU 234/3.0 Survey of Italian Literature II
A survey of Italian literature, through selected texts of representative authors, from the eighteenth century to present.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 332/3.0

LLCU 244/3.0 Hips Don't Lie? Music and Culture in Latin America
This survey course explores key aspects of Hispanic history and culture in the 20th century through the study of its musical production. We will study notions of race, class, gender, and national identity by focusing on specific musical genres.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS LLCU 495/3.0 (2015-2016)

LLCU 247/3.0 The Dynamic History of Spain
This course covers the most significant political, historical, and artistic events and people that have shaped Spanish civilization from prehistoric times to the present. Students will acquire essential knowledge about one of Europe's most dynamic countries and at the same time improve their analytical, writing, and professional skills.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 248/3.0 Spanish American Cultural Contexts
This survey course covers a vast area, several cultures, and many centuries. Students are expected to develop a general understanding of Spanish American culture through an examination of important historical, social, political, economic, and artistic developments in the area.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 249/3.0 Latin Lovers: Love, Sex, and Popular Culture
This course explores the emergence, development, and criticism of the Latin Lover figure in the West, from the creation of the archetypical Don Juan in the 17th century to contemporary Hollywood representation of Italian and Latin-American lovers.

NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 114 (36O;78P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 257/3.0 Pirandello's Theatre
An in-depth study of Pirandello's most important dramatic works, together with analysis of his theoretical essays on theatre. Particular attention will be paid to the following plays: Six Characters in Search of an Author; Each in his Own Way, Henry IV, The Feast of Our Lord of the Ships, The New Colony; Tonight We Improvise and The Mountain Giants.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 357/3.0

LLCU 270/3.0 Contemporary Events and Indigenous Cultural Politics
An interdisciplinary analysis of contemporary events and Indigenous cultural politics, with a focus on how Indigenous writers, filmmakers, artists, and community members participate in and recount defining moments. Indigenous knowledges and epistemologies are mobilised to foster a critical understanding of core questions put forward by events.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS LLCU 295/3.0-002 (2017-18)

LLCU 271/3.0 "Other's" Eyes Viewing Indigenous Peoples
This course surveys English, American, and Canadian literature that includes scholarship, philosophy, poetry, fiction, non-fiction, art, and audio-visual productions about Indigenous Peoples by non-Indigenous Peoples.
LEARNING HOURS 120 (36L;27G;5I;18O;36P)
PREREQUISITE Level 2.
EXCLUSIONS LLCU 295/3.0 l Topic: Other's Viewing Indigenous Peoples

LLCU 295/3.0 Special Topics
Special Topics: For detailed information, consult the Department of Languages, Literatures, and Cultures website.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.

LLCU 301/3.0 Oral Tradition and Innovation in Cultural Transmission
An examination of traditional and innovative forms of oral cultural transmission in a selection of American, African and European contexts with particular focus on the interaction of narrative and technology.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.

LLCU 302/3.0 Unsettling: Indigenous Peoples & Canadian Settler Colonialism
An intersectional/interdisciplinary approach to the analysis of, and possible alternatives to, Canadian settler colonialism. Primacy given to Indigenous voices/theories/methods related to the history of Indigenous lands and associated traditions/identities, the course focuses on the theory/practice of 'unsettling' the settler colonial societies.
LEARNING HOURS 119 (36L;9G;6O;8Oc;60P)
PREREQUISITE DEVS 220/3.0 or DEVS 221/3.0.
EXCLUSIONS LLCU 495/3.0 (2015-2016)

LLCU 303/3.0 Applied Intercultural Communication
This course examines the main concepts of intercultural communication, identifies the obstacles for successful intercultural communication, and explores strategies for overcoming these barriers. Students apply their conceptual understanding as well as their language skills to real-world situations as part of the applied portion of the course.
LEARNING HOURS 120 (24L;24Oc;72P)
PREREQUISITE Level 3 and LLCU 111/3.0 and registration in LLCU Major Plan or permission of the instructor.

LLCU 308/3.0 From Fellini to Benigni
This course will examine social, historic and political realities of the twentieth century through the lens of the unique Italian humorist tradition of film making. The course will focus on films by F.Fellini, L.Comencini, E.Scola, G.Tornatore, G.Salvatores, N.Moretti, R.Benigni and other film makers.
LEARNING HOURS 120 (36L;36T;48P)

PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS ITLN 408/3.0

LLCU 309/3.0 The Films of Pedro Almodóvar
Students will view and analyze a selection of Almodóvar's films within the context of Spain and other countries. The study of gender, sexual, cultural and societal identity and other fundamentals of contemporary theory will be central to this course.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 408/3.0

LLCU 316/3.0 Introduction to Contemporary Literary Theory and Analysis
An introduction to contemporary literary theories and the analysis of Hispanic texts from reader-, structural-, and author-oriented perspectives.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 406/3.0

LLCU 319/3.0 Roots of Fascism: Resistance to Liberalism in the 19th Century
A survey of various currents of thought from 19th-century Europe that illustrate conservative discomfort with industrial society and help to make the outbreak of fascism understandable after 1918. The course will distinguish between conservative, nationalist, aesthetic, and religious trends, illustrated by relevant readings from different countries.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Third year standing of permission of the Department of Languages, Literatures, and Cultures.
EXCLUSIONS GRMN 419/3.0

LLCU 320/3.0 Fascism in Europe from Napoleon to Hitler
An introduction from a cultural perspective to the growth of the fascist mentality in Europe and the emergence of fascist regimes. The course will treat Italian Fascism and the Third Reich as part of the broader conservative and nationalist challenge to liberalism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS *INTS 320/3.0;* GRMN 420/3.0.
EQUIVALENCY *INTS 320/3.0*

LLCU 322/3.0 Conflict and Culture: Literature, Law, and Human Rights
An examination of international discourses on conflict and resolution, including theories of reconciliation, human rights, and international law, as portrayed in various media (fiction, theatre and film) and diverse cultural contexts (e.g. ancient Greece, Germany, South Africa and Canada [indigenous settler relations]).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS GRMN 433/3.0

LLCU 325/3.0 Is Less More? Historic and Current Cultural Aspects of Minimalism and Reduction
The current surge of minimalist movements (e.g. de-cluttering) offers insight into the texture of present and past cultures. The course will explore spiritual, health related, economic and aesthetic aspects of reductionist movements concerning nutrition, lifestyle, housing, design and exercise.
LEARNING HOURS 120(36S;24G;24O;36P)
PREREQUISITE LLCU 111/3.0 and Level 2, or permission of the instructor.
EXCLUSIONS GRMN 425/3.0. GRMN 425/3.0 is taught concurrently with LLCU 325/3.0 with the same instructor/same room. Difference in level because students in GRMN 425/3.0 will complete their assignments and tests in German language, while LLCU 325/3.0 will complete their assignments and tests in English.

LLCU 326/3.0 Film in the New Europe
European film is our starting point for investigating the connections between work and art. Topics include: urban space; (post- and para-); socialist societies; border crossings, especially gendered labour and cultural flows. This course will investigate how the new Europe and film shape each other.
NOTE A screening will be made available each week for viewing films.

LEARNING HOURS 120 (36L; 84P)
PREREQUISITE Level 2 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS GRMN 426/3.0

LLCU 327/3.0 Sickness and Health – Cultural Representations in Medical Discourse
The course investigates German cultural images and metaphors of disease, with an emphasis on the evolution of normalcy. We will study representations of disease (photography, museum exhibit, literary text), their historic development, and theories of media with respect to both historical and contemporary notions of sickness and health.
NOTE Readings are in translation.
LEARNING HOURS 114 (36L;6O;72P)
PREREQUISITE Level 2 or above or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS GRMN 427/3.0

LLCU 328/3.0 Gender, Development and Film in Latin America
This course will explore major themes of development in relation to gender in Latin America through its manifestation in film. Films will be chosen from all regions of Latin America, including Brazil.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) SPAN 428/3.0

LLCU 329/3.0 Uncanny Encounters: Narrative Analysis of the Fantastic Genre
This course offers an overview of the related genres of the Fantastic, the Fairy Tale, Dystopia, Science Fiction, and Horror. Examples will include popular works such as the Twilight Saga, Harry Potter, and/or The Hunger Games, but also traditional texts by Hoffman and Kafka. Parallel to the fictional works, the course offers theoretical analysis.
LEARNING HOURS 120 (12L;24S;12G;24O;48P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS GRMN 429/3.0; ENGL 273/3.0

LLCU 330/3.0 Cervantes I: Earlier Works
A study of Don Quijote I and a selection of his short theatrical Interludes. The course will consider the socio-economic and historical context and the literary implications of these works to provide a better understanding of 17th century Spain and the significance Cervantes' works still hold today.
NOTE Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 330/3.0

LLCU 331/3.0 Cervantes II: Later Works
In this course students will study Don Quijote II and a selection of novellas from Cervantes' Exemplary Novels. The course will consider the socio-economic and historical context and the literary implications of the continuation of Don Quijote I to provide a better understanding of 17th century Spain and the significance Cervantes' works hold today.
NOTE Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 331/3.0

LLCU 332/3.0 Spanish Baroque Short Theatre
Short theatre played an important role in the theatre of Spanish Golden Age. In this course students will study the literary particularities of the genre and the social ramifications of the themes present in short theatre (gender, battle of the sexes, diversity, authority amongst others) and their historical and contemporary relevance.
NOTE Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 332/3.0

LLCU 333/3.0 Acting Out: Sexual and Gender Subversion in Baroque Theatre
Baroque playwrights took full advantage of the actor Juan Rana's well-known queerness to subvert implicitly and explicitly the social norms of sexual and gender identity still questioned today. Course will examine Spanish Baroque short theatre in general and historically contextualize its subversion of social, sexual, gender, and patriarchal norms.
NOTE Readings in translation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSIONS SPAN 333/3.0

LLCU 339/3.0 XX-Century Italian Playwrights: In Search of the Theatre
Investigate the life and works of 20 internationally renowned Italian playwrights (including two Nobel Prize winners Luigi Pirandello and Dario Fo) in a philosophical, political, social, and historical context. Particular emphasis will be given on the aesthetic solutions proposed by the playwrights to deal with the new realities of the 21st-Century.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Third year standing or permission of the Department of Languages, Literatures, and Cultures.

LLCU 340/3.0 European Romanticism
The course will focus on the major trends of European Romanticism, mainly English, French, German and Italian. A comparison of both the 'poetics' together with a comparative analyses poems will serve as the backbone of the course.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.

LLCU 354/3.0 Women's Voices in Latin America
A study of recent contributions to Latin American cultural production by women, including an overview of gender issues and the role women have played in their nations' history. The course will also explore the variety of voices that make up the cultural production of women in Latin America in terms of class, ethnicity, race, and sexual orientation.
NOTE Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above.
EXCLUSIONS SPAN 354/3.0

LLCU 358/3.0 Film and Politics in Argentina
This course will examine critically a variety of representative Latin American films from a historical and filmic perspective. Beginning with the Peron era in the 1940s and 50s, and continuing through the dictatorship years of 1976 to 1983 and its aftermaths, we will examine how Argentine filmmakers express national reality and identity.
NOTE Films and readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above.
EXCLUSIONS SPAN 458/3.0

LLCU 370/3.0 Indigenous Women and Power
This course presents an interdisciplinary examination of Indigenous women and power through the lens of Indigenous scholars, writers, filmmakers, artists, and activists. Close reading methodologies are used to examine what it may mean for Indigenous women, including girls and LGBTQ2S+, "to reclaim their power and place."
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above.

LLCU 372/3.0 Rotinohnsyonni Indigenography: Iroquois Language, Literatures and Culture
This course explores Rotinohnsyonni (Iroquois) scholarship, philosophy, literature, and contemporary arts that introduces students to the passive, habitual, and stative aspect of Indigenous epistemologies.
LEARNING HOURS 111 (36L;27G;48P)
PREREQUISITE Level 3.
EXCLUSIONS LLCU 295/3.0 Topic: Rotinohnsyonni Indigenography

LLCU 395/3.0 Special Topics
Special topics. For detailed information, consult the Department of Languages, Literatures and Cultures web page.
PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.
LEARNING HOURS 120 (36L; 48P)

LLCU 432/6.0 Field Research Practicum at Fudan University

Provides students with an opportunity to conduct social research under the guidance of a Fudan instructor. Queen's students attend lectures on the interdisciplinary study of Shanghai and team up with Fudan counterparts to undertake research on social change in Shanghai. Assignments include in-class presentations and a final paper. Fall term.

NOTE This course is part of the Semester in Shanghai program in Arts and Science, which will require students to pay a $500 program fee to cover costs over and above tuition.

LEARNING HOURS 225.26 (26L;6.5S;2.86T;9.75Pc;6.5G;0.65I;77Oc;96P)

PREREQUISITE Acceptance as a participant in the Semester in Shanghai program administered by the International Programs Office.

EXCLUSIONS DEVS 420/3.0

LLCU 495/3.0 Special Topics I

Special topics. For detailed information, consult the Department of Languages, Literatures and Cultures.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.

EXCLUSIONS LLCU 244/3.0; LLCU 302/3.0; LLCU 495/3.0 (2015-2016)

LLCU 501/3.0 Directed Readings in Languages, Literatures and Cultures

This course enables a student or a group of students to explore a body of literature on a selected topic in Languages, Literatures, and Cultures. The focus may be by theme, by region, or academic approach and can span the humanities, social sciences, and environmental sciences.

NOTE The student(s) is responsible for approaching a professor with whom they wish to work and who is willing to undertake this project.

PREREQUISITE Level 3 or permission of the Department of Languages, Literatures and Cultures.

MAPP 200/3.0 Media and Performance
This introductory course explores the integration of media and performance across a variety of contexts beyond traditional theatre and film. Students will be introduced to key theoretical concepts through which media and performance intersect, and will mobilize these concepts through their own original intermedial performance projects.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 120 (24S;36G;60P)
PREREQUISITE Level 2 and registration in a COCA, DRAM, FILM, MAPP, MUSC, MUTH plan or permission of the Department/School.

MAPP 300/3.0 Media and Performance II
The course explores the relationship between different media within and across traditional domains such as theatre, film, art, dance, and music. It also focuses on the multiplicity of interactive forms that encompass digital media, by studying digital media practices beyond changing art forms, commercial, and non-profit realms.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 120 (24S;36G;60P)
PREREQUISITE MAPP200/3.0 or (Level 3 and registration in a COCA, DRAM, FILM, MAPP, MUSC or MUTH plan) or permission of the Department/School.
EQUIVALENCY *STSC 339/3.0*.

MAPP 311/3.0 Sound Production
A production class exploring the formal concepts, historical underpinnings, and technical tools used in the production of independent sound works, or in the production of more elaborate sound components for video, film or theatrical projects.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 123 (36S;15Lb;72P)
PREREQUISITE Level 3.
EQUIVALENCY *IDIS 311/3.0*.

MAPP 395/3.0 Internship
Students can apply to undertake a practical internship in media or performance production, criticism, or curatorship. Approval will depend on the quality of the proposal and the academic record of the applicant. It is the responsibility of students, not the departments, to arrange internships. Internships can be completed in any academic term.
NOTE Students will be given a grade of Pass/Fail for work done.
LEARNING HOURS 120 (120I)
PREREQUISITE (Level 3 and registration in the MAPP Specialization) and permission of the MAPP Undergraduate Chair
EXCLUSIONS DRAM 395/3.0; FILM 395/3.0; MUSC 395/3.0; MUTH 395/3.0

MAPP 400/6.0 Media and Performance Major Project
This course will include a focus on the development of 'social design' as a framework for understanding the evolution of digital interactivity and live performance. Students will undertake a creative thesis project that experiments with or explores the intersection of live performance and media technology.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 228(36L;36G;36O;120P)
PREREQUISITE (MAPP 300/3.0 or *STSC 339/3.0*) or permission of the Department/School.
EXCLUSIONS IDIS 410/3.0.

MAPP 493/3.0 Visual Music
An introduction to the history, theory, aesthetics and applications of Visual Music, a term broadly categorizing experiments in art and science which closely mesh visual and sonic media. Through workshops, practical production exercises and research assignments this course examines relationships between music and image from the 1600s to present.
NOTE Administered by the Department of Film and Media.
LEARNING HOURS 120(36L;24Lb;60P)
PREREQUISITE (Level 3 and Registration in STSC/MAPP Specialization or a COCA, FILM, DRAM, MAPP, MDIA, MUSC or MUTH Plan)

MATH 110/6.0 Linear Algebra
For students intending a medial or major concentration in Mathematics or Statistics. Provides a thorough introduction to linear algebra up to and including eigenvalues and eigenvectors.
LEARNING HOURS 264 (72L;24T;168P)
RECOMMENDATION At least one 4U mathematics course.
EXCLUSIONS MATH 111/6.0; MATH 112/3.0; MATH 212/3.0

MATH 111/6.0 Linear Algebra
An introduction to matrices and linear algebra. Emphasis on applications to biological and economic systems and to computer applications. Topics covered will include systems of equations, eigenvalues, recursions, orthogonality, regression analysis, and geometric transformations.
LEARNING HOURS 240 (72L;168P)
RECOMMENDATION At least one 4U mathematics course.
EXCLUSIONS MATH 110/6.0; MATH 112/3.0

MATH 112/3.0 Introduction to Linear Algebra
A brief introduction to matrix algebra, linear algebra, and applications. Topics include systems of linear equations, matrix algebra, determinants, the vector spaces R^n and their subspaces, bases, co-ordinates, orthogonalization, linear transformations, eigenvectors, diagonalization of symmetric matrices, quadratic forms.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION At least one 4U mathematics course.
EXCLUSIONS MATH 110/6.0; MATH 111/6.0

MATH 120/6.0 Differential and Integral Calculus
A thorough discussion of calculus, including limits, continuity, differentiation, integration, multivariable differential calculus, and sequences and series.
NOTE For students intending to pursue a medial or major plan in Mathematics or Statistics or Physics.
LEARNING HOURS 288 (72L;24T;192P)
RECOMMENDATION MHF4U and MCV4U or 4U AFIC, or permission of the Department.
EXCLUSIONS MATH 121/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0

MATH 121/6.0 Differential and Integral Calculus
Differentiation and integration with applications to biology, physics, chemistry, economics, and social sciences; differential equations; multivariable differential calculus.
NOTE For students intending to pursue a medial or major plan in a subject other than Mathematics or Statistics.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 240 (72L;168P)
RECOMMENDATION MHF4U and MCV4U or equivalent, or 4U AFIC, or *MATH P06/3.0*, or permission of the Department.
EXCLUSIONS MATH 120/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0

MATH 123/3.0 Differential and Integral Calculus I
Differentiation and integration of elementary functions, with applications to physical and social sciences. Topics include limits, related rates, Taylor polynomials, and introductory techniques and applications of integration.
NOTE Not intended for students pursuing a MATH or STAT plan.
PREREQUISITE Permission of the Department.
EXCLUSIONS MATH 120/6.0; MATH 121/6.0; MATH 126/6.0

MATH 124/3.0 Differential and Integral Calculus II
Topics include techniques of integration, differential equations, and multivariable differential calculus.
NOTE For students who have credit for a one-term course in calculus. Topics covered are the same as those in the Winter term of MATH 121/6.0.
LEARNING HOURS 126 (36L;12T;78P)
PREREQUISITE MATH 123/3.0 or permission of the Department.
EXCLUSIONS MATH 120/6.0; MATH 121/6.0; MATH 126/6.0

MATH 126/6.0 Differential and Integral Calculus
Differentiation and integration of the elementary functions, with applications to the social sciences and economics; Taylor polynomials; multivariable differential calculus.
NOTE Primarily intended for students in the BAH program. Students in the BSCH, BCMPH and BCOM programs should not enroll in this course.
LEARNING HOURS 240 (72L;24T;144P)
EXCLUSION(S) MATH 120/6.0; MATH 121/6.0; MATH 123/3.0; MATH 124/3.0

MATH 210/3.0 Rings and Fields
Integers, polynomials, modular arithmetic, rings, ideals, homomorphisms, quotient rings, division algorithm, greatest common divisors, Euclidean domains, unique factorization, fields, finite fields.
NOTE Students with MATH 112/3.0 may ask for admission with the permissions of the Department.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE MATH 110/6.0 or MATH 111/6.0 or (MATH 112/3.0 with permission of the Department).
EXCLUSIONS MATH 211/6.0

MATH 211/6.0 Algebraic Methods
Algebraic techniques used in applied mathematics, statistics, computer science and other areas. Polynomials, complex numbers; least squares approximations; discrete linear systems; eigenvalue estimation; non-negative matrices - Markov chains; permutation groups; linear Diophantine equations; introduction to algebraic structures.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0) and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0).
EXCLUSIONS MATH 210/3.0

MATH 212/3.0 Linear Algebra II
Vector spaces, direct sums, linear transformations, eigenvalues, eigenvectors, inner product spaces, self-adjoint operators, positive operators, singular-value decomposition, minimal polynomials, Jordan canonical form, the projection theorem, applications to approximation and optimization problems.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE MATH 111/6.0 or MATH 112/3.0 or MTHE 217/3.0.
EXCLUSIONS MATH 110/6.0
EQUIVALENCY *MATH 312/3.0*.

MATH 221/3.0 Vector Calculus
Double and triple integrals, including polar and spherical coordinates. Parameterized curves and line integrals. Gradient, divergence, and curl. Green's theorem. Parameterized surfaces and surface integrals. Stokes' and Gauss' Theorems.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION Some linear algebra.
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0.
EXCLUSIONS MATH 280/3.0

MATH 225/3.0 Ordinary Differential Equations
An introduction to solving ordinary differential equations. Topics include first order differential equations, linear differential equations with constant coefficients, and applications, Laplace transforms, systems of linear equations.
NOTE Some knowledge of linear algebra is assumed.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12T;72P)
EQUIVALENCY *MATH 232/3.0*.
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0.
EXCLUSIONS MATH 231/3.0; *MATH 232/3.0*.

MATH 228/3.0 Complex Analysis
Complex arithmetic, complex plane. Differentiation, analytic functions. Elementary functions. Contour integration, Cauchy's Theorem, and Integral Formula. Taylor and Laurent series, residues with applications to evaluation of integrals.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0).
EXCLUSIONS MATH 326/3.0; PHYS 317/3.0; *PHYS 312/6.0*

MATH 231/3.0 Differential Equations
An introduction to ordinary differential equations and their applications. Intended for students concentrating in Mathematics or Statistics.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE MATH 110/6.0 or MATH 111/6.0 **or MATH 212/3.0**) and (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0)
EXCLUSION(S) MATH 225/3.0; MATH 226/3.0; *MATH 232/3.0*

MATH 272/3.0 Applications of Numerical Methods
An introductory course on the use of computers in science. Topics include: solving linear and nonlinear equations, interpolation, integration, and numerical solutions of ordinary differential equations. Extensive use is made of MATLAB, a high level interactive numerical package.
LEARNING HOURS 120 (36L;12Lb;12T;60P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 212/3.0) and (CISC 101/3.0 or CISC 121/3.0).
COREQUISITE MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*.
EXCLUSIONS CISC 271/3.0; PHYS 213/3.0; *PHYS 313/3.0*

MATH 280/3.0 Advanced Calculus
Limits, continuity, C^1, and linear approximations of functions of several variables. Multiple integrals and Jacobians. Line and surface integrals. The theorems of Green, Stokes, and Gauss.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0).
EXCLUSIONS MATH 221/3.0

MATH 281/3.0 Introduction to Real Analysis
Taylor's theorem, optimization, implicit and inverse function theorems. Elementary topology of Euclidean spaces. Sequences and series of numbers and functions. Pointwise and uniform convergence. Power series.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0.

MATH 310/3.0 Group Theory
Permutation groups, matrix groups, abstract groups, subgroups, homomorphisms, cosets, quotient groups, group actions, Sylow theorems.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 210/3.0.

MATH 311/3.0 Elementary Number Theory
Congruences; Euler's theorem; continued fractions; prime numbers and their distribution; quadratic forms; Pell's equation; quadratic reciprocity; introduction to elliptic curves.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 210/3.0 or MATH 211/6.0.

MATH 314/3.0 Representations of the Symmetric Group
The symmetric group consists of all permutations of a finite set or equivalently all the bijections from the set to itself. This course explores how to map the symmetric group into a collection of invertible matrices. To handle, count, and manipulate these objects, appropriate combinatorial tools are introduced.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 210/3.0 or MATH 211/6.0.

MATH 326/3.0 Functions of a Complex Variable
Complex numbers, analytic functions, harmonic functions, Cauchy's Theorem, Taylor and Laurent series, calculus of residues, Rouche's Theorem.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE MATH 281/3.0.
EXCLUSIONS MATH 228/3.0; PHYS 317/3.0; *PHYS 312/6.0*

MATH 328/3.0 Real Analysis
Metric spaces, topological spaces, compactness, completeness, contraction mappings, sequences and series of functions, uniform convergence, normed linear spaces, Hibert space.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 281/3.0.

MATH 334/3.0 Mathematical Methods for Engineering and Physics
Banach and Hilbert spaces of continuous- and discrete-time signals; spaces of continuous and not necessarily continuous signals; continuous-discrete Fourier transform; continuous-continuous Fourier transform; discrete-continuous Fourier transform; discrete-discrete Fourier transform; transform inversion using Fourier series and Fourier integrals.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 212/3.0) and MATH 281/3.0.
EXCLUSIONS PHYS 316/3.0; *PHYS 312/6.0*

MATH 335/3.0 Mathematics of Engineering Systems
Linear input/output systems and their stability. Frequency-domain and time-domain analysis. Continuous and discrete time-modeling. Fourier, Laplace, and Z-transforms. Sampling and the discrete-time Fourier transform. Application to modulation of communications signals, filter design, and digital sampling.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE MATH 334/3.0 and (MATH 326/3.0 or MATH 228/3.0).
EXCLUSIONS *PHYS 312/6.0*.
EQUIVALENCY *MATH 236/3.0*.

MATH 337/3.0 Introduction to Operations Research Models
Some probability distributions, simulation, Markov chains, queuing theory, dynamic programming, inventory theory.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (STAT 268/3.0 or STAT 351/3.0) and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0).

MATH 338/3.0 Fourier Methods for Boundary Value Problems
Methods and theory for ordinary and partial differential equations; separation of variables in rectangular and cylindrical coordinate systems; sinusoidal and Bessel orthogonal functions; the wave, diffusion, and Laplace's equation; Sturm-Liouville theory; Fourier transform.
LEARNING HOURS 118 (36L;12T;70P)
PREREQUISITE (MATH 221/3.0 or MATH 280/3.0) and (MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*) and (MATH 110/6.0 or MATH 111/6.0).
EXCLUSIONS PHYS 316/3.0; *PHYS 312/6.0*

MATH 339/3.0 Evolutionary Game Theory
This course highlights the usefulness of game theoretical approaches in solving problems in the natural sciences and economics. Basic ideas of game theory, including Nash equilibrium and mixed strategies; stability using approaches developed for the study of dynamical systems, including evolutionary stability and replicator dynamics; the emergence of co-operative behaviour; limitations of applying the theory to human behaviour.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION MATH 110/6.0 or MATH 111/6.0.
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0.

MATH 341/3.0 Differential Geometry
Introductory geometry of curves/surfaces: directional/covariant derivative; differential forms; Frenet formulas; congruent curves; surfaces in R^3: mappings, topology, intrinsic geometry; manifolds; Gaussian/mean curvature; geodesics, exponential map; Gauss-Bonnet Theorem; conjugate points; constant curvature surfaces.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 110/6.0 and MATH 280/3.0.

MATH 381/3.0 Mathematics with a Historical Perspective
A historical perspective on mathematical ideas focusing on a selection of important and accessible theorems. A project is required.
LEARNING HOURS 120 (36L;12G;72P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 212/3.0) and (MATH 120/6.0 or MATH 121/6.0 or MATH 126/6.0).

MATH 382/3.0 Mathematical Explorations
Elementary mathematical material will be used to explore different ways of discovering results and mastering concepts. Topics will come from number theory, geometry, analysis, probability theory, and linear algebra. Much class time will be used for problem solving and presentations by students.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 221/3.0 or MATH 225/3.0 or MATH 231/3.0 or MATH 280/3.0 or *MATH 232/3.0*) and (MATH 210/3.0 or MATH 211/6.0).

MATH 384/3.0 Mathematical Theory of Interest
Interest accumulation factors, annuities, amortization, sinking funds, bonds, yield rates, capital budgeting, contingent payments. Students will work mostly on their own; there will be a total of six survey lectures and six tests throughout the term, plus opportunity for individual help.
LEARNING HOURS 102 (12L;84P)
PREREQUISITE Level 3 and (MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0).

MATH 385/3.0 Life Contingencies
Measurement of mortality, life annuities, life insurance, premiums, reserves, cash values, population theory, multi-life functions, multiple-decrement functions. The classroom meetings will be primarily problem-solving sessions, based on assigned readings and problems.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0) and MATH 384/3.0 and (STAT 268/3.0 or STAT 351/3.0), or permission of the Department.

MATH 386/3.0 Our Number System – an Advanced Perspective
Integers and rationals from the natural numbers; completing the rationals to the reals; consequences of completeness for sequences and calculus; extensions beyond rational numbers, real numbers, and complex numbers.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 281/3.0.

MATH 387/3.0 Elementary Geometry – an Advanced Perspective
In-depth follow-up to high school geometry: striking new results/connections; analysis/proof of new/familiar results from various perspectives; extensions (projective geometry, e.g.); relation of classical unsolvable constructions to modern algebra; models/technology for geometric exploration.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 and (MATH 221/3.0 or MATH 280/3.0 or MATH 281/3.0), or permission of the Department.

MATH 401/3.0 Graph Theory
An introduction to graph theory, one of the central disciplines of discrete mathematics. Topics include graphs, subgraphs, trees, connectivity, Euler tours, Hamiltonian cycles, matchings, independent sets, cliques, colourings, and planarity. Given jointly with MATH 801/3.0.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION Experience with abstract mathematics and mathematical proof, and a good foundation in linear algebra.
PREREQUISITE MATH 210/3.0 or MATH 211/6.0.

MATH 402/3.0 Enumerative Combinatorics
Enumerative combinatorics is concerned with counting the number of elements of a finite set. The techniques covered include inclusion-exclusion, bijective proofs, double-counting arguments, recurrence relations, and generating functions. Given jointly with MATH 802/3.0.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION Experience with abstract mathematics and mathematical proof, and a good foundation in linear algebra.
PREREQUISITE MATH 210/3.0 or MATH 211/6.0.

MATH 406/3.0 Introduction to Coding Theory
Construction and properties of finite fields. Polynomials, vector spaces, block codes over finite fields. Hamming distance and other code parameters. Bounds relating code parameters. Cyclic codes and their structure as ideals. Weight distribution. Special codes and their relation to designs and projective planes. Decoding algorithms.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 210/3.0.

MATH 413/3.0 Introduction to Algebraic Geometry
An introduction to the study of systems of polynomial equations in one or many variables. Topics covered include the Hilbert basis theorem, the Nullstellenstaz, the dictionary between ideals and affine varieties, and projective geometry.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 210/3.0.

MATH 414/3.0 Introduction to Galois Theory
An introduction to Galois Theory and some of its applications.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 310/3.0.

MATH 418/3.0 Number Theory and Cryptography
Time estimates for arithmetic and elementary number theory algorithms (division algorithm, Euclidean algorithm, congruences), modular arithmetic, finite fields, quadratic residues. Simple cryptographic systems; public key, RSA. Primality and factoring: pseudoprimes, Pollard's rho-method, index calculus. Elliptic curve cryptography.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 210/3.0 or (MATH 211/6.0 with permission of the Department).

MATH 421/3.0 Fourier Analysis
An exploration of the modern theory of Fourier series: Abel and Cesàro summability; Dirichlet's and Fejér's kernels; term by term differentiation and integration; infinite products; Bernoulli numbers; the Fourier transform; the inversion theorem; convolution of functions; the Plancherel theorem; and the Poisson summation theorem.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE MATH 281/3.0 or permission of the Department.

MATH 427/3.0 Introduction to Deterministic Dynamical Systems
Topics include: global properties of flows and diffeomorphisms, Invariant sets and dynamics, Bifurcations of fixed and periodic points; stability and chaos. Examples will be selected by the instructor. Given jointly with MATH 827/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 328/3.0 and MATH 231/3.0, or permission of the Department.

MATH 429/3.0 Functional Analysis and Quantum Mechanics
A generalized linear algebra and calculus to infinite dimensional spaces. Now questions about continuity and completeness become crucial, and algebraic, topological, and analytical arguments need to be combined. We focus mainly on Hilbert spaces and the need for Functional Analysis will be motivated by its application to Quantum Mechanics.
LEARNING HOURS 132 (36L; 12G;84P)
PREREQUISITE MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0, MATH 281/3.0 or permission of the department.

MATH 434/3.0 Optimization Theory and Applications
Theory of convex sets and functions; separation theorems; primal-duel properties; geometric treatment of optimization problems; algorithmic procedures for solving constrained optimization programs; engineering and economic applications.
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 212/3.0) and MATH 281/3.0

MATH 436/3.0 Partial Differential Equations
Quasilinear equations: Cauchy problems, method of characteristics; Cauchy-Kovalevski theorem; generalized solutions; wave equation, Huygens' principle, conservation of energy, domain of dependence; Laplace equation, boundary value problems, potential theory, Green's functions; heat equation, maximum principle.
LEARNING HOURS 132 (36L;96P)
RECOMMENDATION MATH 328/3.0 or MATH 334/3.0 or MATH 338/3.0 or *PHYS 312/6.0*.
PREREQUISITE MATH 231/3.0 and MATH 280/3.0.

MATH 437/3.0 Topics in Applied Mathematics
Subject matter to vary from year to year. Given jointly with MATH 837/3.0.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Permission of the Department.

MATH 439/3.0 Lagrangian Mechanics, Dynamics, and Control
Geometric modeling, including configuration space, tangent bundle, kinetic energy, inertia, and force. Euler-Lagrange equations using affine connections. The last part of the course develops one of the following three applications: mechanical systems with nonholonomic constraints; control theory for mechanical systems; equilibria and stability.
LEARNING HOURS 132 (36L;12T;84P)
PREREQUISITE MATH 231/3.0 and (MATH 280/3.0 or MATH 281/3.0), or permission of the Department.

MATH 474/3.0 Information Theory
Topics include: information measures, entropy, mutual information, modeling of information sources, lossless data compression, block encoding, variable-length encoding, Kraft inequality, fundamentals of channel coding, channel capacity, rate-distortion theory, lossy data compression, rate-distortion theorem. Given jointly with MATH 874/3.0.
LEARNING HOURS 140 (36L;104P)
RECOMMENDATION STAT 353/3.0.
PREREQUISITE STAT 268/3.0 or STAT 351/3.0.

MATH 477/3.0 Data Compression and Source Coding
Topics include: arithmetic coding, universal lossless coding, Lempel-Ziv and related dictionary based methods, rate distortion theory, scalar and vector quantization, predictive and transform coding, applications to speech and image coding.
LEARNING HOURS 120 (36L;12O;72P)
RECOMMENDATION STAT 353/3.0.
PREREQUISITE MATH 474/3.0.

MATH 497/3.0 Topics in Mathematics IV
An important topic in mathematics not covered in any other courses.
PREREQUISITE Prerequisites vary depending on specific course content; consult instructor or departmental webpage.

MATH 498/3.0 Topics in Mathematics V
An important topic in mathematics not covered in any other courses.
PREREQUISITE Prerequisites vary depending on specific course content; consult instructor or departmental webpage.

MATH 499/3.0 Topics in Mathematics
Important topics in mathematics not covered in any other courses.
PREREQUISITE Permission of the Department.

MICR 121/3.0 Microbiology for Nursing Students
This course provides the student with a foundation in the subdisciplines of bacteriology, virology, parasitology, and immunology. The course is designed to examine common infectious diseases through a body-systems approach. Laboratory and tutorial sessions emphasize diagnostic microbiology.
PREREQUISITE BCHM 102/3.0.
ONE-WAY EXCLUSION May not be taken with or after MICR at the 200-level or above.

MICR 221/3.0 Basic Microbiology
A fundamental study of the structure and growth of microorganisms and viruses. The roles of microbes in aquatic, terrestrial and human environments will be considered.
LEARNING HOURS 120 (36L;18Lb;66P)
EQUIVALENCY *MICR 229/3.0*.
PREREQUISITE (A GPA of 1.90 (obtained in any term) or a 'Pass' (obtained in Winter 2020) in BIOL 102/3.0 and BIOL 103/3.0) and CHEM 112/6.0.
EXCLUSIONS MICR 271/3.0

MICR 290/3.0 Antibiotic Resistance Lab
This immersive laboratory course is designed to give students the opportunity to apply important microbiological and biochemical research techniques to the study of antibiotic resistance. Students work in small groups on a semester-long project, developing valuable lab skills that will support them with future research opportunities.
LEARNING HOURS 120(36Lb;48O;36P)
PREREQUISITE Minimum 2nd year(Level 2) standing, registration in a Health Sciences, Life Sciences, or Biochemistry degree plan, and one of (MICR 270/3.0;MICR 271/3.0)
EXCLUSION MICR 221/3.0

MICR 270/3.0 Infection, Immunity and Inflammation
This course focuses on 1) the overall organization of the immune system, 2) the role of the immune system in combating diseases caused by common pathogens as well as adverse reactions of the immune system and 3) application of the basic knowledge of immunology to the field of infectious disease prevention and control by vaccines and treatment of cancer. The unique features of this course lie in its overall structure and delivery that will prepare the student for further in-depth learning in the field of immunology.
NOTE This online course in infection and immunity is designed for students from various biological sciences and allied health backgrounds at all levels of post-secondary education and is recommended as a foundation course for students pursuing a life sciences career.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
NOTE May not be taken for credit towards the Plan requirements of the LISC Specialization or Major Plans.
LEARNING HOURS 114 (36O;78P)
RECOMMENDATION 4U Biology.
PREREQUISITE Level 2 and (BIOL 102/3.0 or MICR 121/3.0 or PHGY 170/3.0).
ONE-WAY EXCLUSION May not be taken with or after MICR 360/3.0; BMED 386/3.0.

MICR 271/3.0 Introduction to Microbiology
An introduction to the biology of microbes, including both pathogenic & beneficial bacteria, viruses, fungi, & protozoa. This overview of the biological features of these microorganisms will highlight these organisms' roles in the environment & in human health contributing to infectious diseases vs. maintaining healthy microbiomes.
NOTE Only offered online. Consult. Consult the Bachelor of Health Sciences program office.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 2 or above and (BIOL 102/3.0 or PHGY 170/3.0).
EXCLUSIONS MICR 221/3.0

MICR 320/3.0 Microbes in Health and Disease
This course will focus on the roles of microbes in health (human microbiome) and disease (pathogens). The molecular mechanisms of bacterial/viral virulence and the host response will be examined in order to develop an in depth understanding of the etiology of infectious diseases and the benefits derived from the human microbiome.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (34L;2S;4T;8G;72P)
PREREQUISITE (MICR 221/3.0 or MICR 271/3.0 or *MICR 229/3.0*) and (MICR 360/3.0 or BMED 386/3.0)

MICR 360/3.0 Immunology
The general principles and mechanism of immune reaction. Immunochemical and immunobiological aspects of antibody formation and cell-mediated immunity in health and disease will be considered.
LEARNING HOURS 144 (36L;36O;72P)
PREREQUISITE MICR 221/3.0 or MICR 271/3.0.

MICR 386/3.0 Fundamentals of Immunology
Integrates the key principles of immunology to facilitate learning of immunology as it relates to human health and disease. This course offers real-life case studies, problems encountered and solutions applied, immunology virtual laboratory simulation, and extensive coverage of the basic science underlying each topic in the module.
LEARNING HOURS 120(48O;72P)
PREREQUISITE Minimum 3rd year (level 3) standing and one of (BCHM 218/3.0 or BCHM 270/3.0), and one of (MICR 270/3.0; MICR 271/3.0; MICR 221/3.0)
EXCLUSIONS May not be taken with or after MICR 360/3.0
EQUIVALENCY *BMED 386/3.0*

MICR 435/3.0 Advanced Procaryotic Structure and Function
An in-depth analysis of the genetics, biochemistry, assembly and function of the major structures of the procaryotic cell. Emphasis on the experimental approaches in the current literature.
NOTE Offered in alternate years to MICR 436/3.0.
PREREQUISITE Registration in the LISC Major or Specialization Plan and a GPA of 2.5 and BIOL 205/3.0 and (a grade of B- in MICR 221/3.0 or MICR 271/3.0 or *MICR 229/3.0*).
COREQUISITE BCHM 310/9.0 or BCHM 315/3.0 or BIOL 334/3.0.

MICR 436/3.0 Microbial Genetics
A detailed description of the processes of heredity in bacteria including a discussion of gene structure and evolution, gene expression and its control, the exchange of genetic material in the microbial world and genetic engineering and its applications. The laboratory component will emphasize modern approaches to genetic engineering.
NOTE Offered in alternate years to MICR 435/3.0.
LEARNING HOURS 132 (12L;12S;36Lb;12T;60P)
PREREQUISITE Registration in the LISC Major or Specialization Plan and a GPA of 2.5 and BIOL 205/3.0 and (a grade of B in MICR 221/3.0 or MICR 271/3.0 or *MICR 229/3.0*).
COREQUISITE BCHM 310/9.0 or BCHM 315/3.0 or BIOL 334/3.0.

MICR 450/3.0 Principles of Molecular Virology
Further study of contemporary virology, using the textbook as a guide to particles, genomes, replication, expression, infection and pathogenesis. Emphasizing reading and writing to develop skills in observation and critical thinking, important attributes in understanding the scientific method.
NOTE Offered in alternate years to MICR 451/3.0.
RECOMMENDATION BCHM 218/3.0.
LEARNING HOURS 140 (36L;12S;8T;24G;24I;36P)
PREREQUISITE Level 4 and registration in the LISC Major or Specialization Plan and a GPA of 2.5 and BIOL 205/3.0 and (a grade of B- in MICR 221/3.0 or MICR 271/3.0 or *MICR 229/3.0*).
COREQUISITE BCHM 310/9.0 or BCHM 315/3.0.

MICR 451/3.0 Selected Topics in Viral Pathogenesis
The nature of selected animal virus groups and their interactions with the host in disease production. Special emphasis on the pathogenesis of tumour and human immunodeficiency viruses.
NOTE Offered in alternate years to MICR 450/3.0.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE Level 3 or above and registration in the BIOL or LISC Major or Specialization Plan and a GPA of 2.5 and (BCHM 218/3.0 or a minimum grade of B- in BIOL 330/3.0 or a minimum grade of B- in BIOL 331/3.0).

MICR 452/3.0 Viral Infection and Immunity

Course material will focus on the molecular basis for virus pathogenesis including host immune responses to virus infection, and viral countermeasures. Emphasis will be on viral infections that result in gastrointestinal, haematological, neurological, and respiratory diseases. Tutorials will focus on discussion of current and seminal literature.

PREREQUISITE Level 4 and registration in the LISC Major or Specialization Plan and a GPA of 2.5 and (MICR 221/3.0 or MICR 271/3.0) and MICR 360/3.0.

MICR 461/3.0 Advanced Immunology

Advanced immunology course focused on current topics in immunology and immunology-related scientific research.

LEARNING HOURS 132 (12L;24T;96P)

PREREQUISITE Level 4 and registration in the LISC Major or Specialization Plan and a GPA of 2.5 and a minimum grade of A- in MICR 360/3.0.

MICR 499/12.0 Research Project in Microbiology and Immunology

A research project supervised by and closely related to the research program of a faculty member. The research project involves experimental design, data collection and analysis, written report and oral presentation. Students will be required to attend seminars and tutorials on topics related to research. Limited enrolment.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in a LISC or ELSC Specialization Plan and a GPA of 2.50 and MICR 221/3.0.

EXCLUSIONS ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; *LISC 499/12.0*; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

MOHK 101/3.0 Beginning Mohawk Language and Culture I
An introduction to the language and culture of the Kanyen'kehá:ka, the people of the Mohawk Nation. This course is designed for those who have neither been exposed to Kanyen'kéha, the Mohawk language, nor its traditional societal practices. Learn basic Mohawk language and gain a rich understanding of the Mohawk culture and tradition.
LEARNING HOURS 120 (36L;84P)
EXCLUSION(S) LLCU 101/3.0 (Topic: Mohawk I).
ONE-WAY EXCLUSION: May not be taken with or after MOHK 103/3.0; MOHK 104/3.0; MOHK 201/3.0; MOHK 202/3.0.

MOHK 102/3.0 Beginning Mohawk Language and Culture II
A continuation of MOHK 101/3.0. Students will participate and begin to develop the ability to read, write and speak some basic Mohawk language and further their understanding of the richness of Mohawk culture, traditions, and worldviews.
NOTE Also offered in the Mohawk Territory of Tyendinaga for students registered in the Certificate of Mohawk Language and Culture. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MOHK 101/3.0 or LLCU 101/3.0 (Topic: Mohawk I).
EXCLUSION(S) LLCU 102/3.0 (Topic: Mohawk II).
ONE-WAY EXCLUSION: May not be taken with or after MOHK 103/3.0; MOHK 104/3.0; MOHK 201/3.0; MOHK 202/3.0.

MOHK 103/3.0 Oral Mohawk Language - Beginning I (TMT)
This course is delivered in Tyendinaga and will offer foundational instruction in Kanyen'kéha, the language of the Mohawk People. It will build oral language skills for everyday communication and lay the groundwork for continuing study in MOHK 104. It is especially designed for those who have never been exposed to Kanyen'kéha as a living language.
LEARNING HOURS 120(108Oc;12P)
NOTE Only offered in Tyendinaga

MOHK 104/3.0 Beginning Mohawk Language and Culture II Tyendinaga
This course will be delivered in Tyendinaga and will be a continuation of MOHK 103/3.0. It will provide further instruction in Kanyen'kéha, the language of the Mohawk People at the beginning level. This course will allow students to continue developing their language abilities at the beginning level for continuing study in MOHK 201/3.0.
LEARNING HOURS 120(108Oc;12P)
NOTE Only offered in Tyendinaga.
PREREQUISITE MOHK 103/3.0.

MOHK 201/3.0 Intermediate Mohawk Language and Culture
Students will continue to develop their language skills in Kanyen'kéha (the Mohawk language) beyond the basics and be able to interact meaningfully in a greater number of daily activities.
NOTE Offered only in the Mohawk Territory of Tyendinaga and open only to students registered in the Certificate of Mohawk Language and Culture.
LEARNING HOURS 120 (102Oc;18P)
PREREQUISITE MOHK 102/3.0 or MOHK 104/3.0.

MOHK 202/3.0 Oral Mohawk Language
This course will finalize the transition from reading to writing to hearing and speaking in Kanyen'kéha (the Mohawk language). It will also give students the tools necessary to learn and improve their abilities in conversation with first language speakers (either in person, in recordings, or in written materials).
NOTE Offered only in the Mohawk Territory of Tyendinaga and open only to students registered in the Certificate of Mohawk Language and Culture.
LEARNING HOURS 120 (102Oc;18P)
PREREQUISITE MOHK 201/3.0.

MUSC 100/1.5 Small Ensemble
Chamber music, collaborative piano, or small ensemble experience for qualified instrumentalists and singers. Topics vary. Course includes weekly coachings and a minimum of one evaluation concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 300)
NOTE Collaborative Piano is strongly recommended for all piano and organ majors in the BMUS program.
LEARNING HOURS Vary.
PREREQUISITE Permission of the School.

MUSC 102/3.0 Western Music: Napoleon to 9/11
The history of Western art music from 1750 to the present. The course focuses on musical styles, genres, and composers, as well as historical and social contextual considerations.
NOTE Students registered in a MUSC Plan should not register in this course.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)
EXCLUSIONS MUSC 211/3.0; *MUSC 203/3.0*; *MUSC 204/3.0*.
.
MUSC 104/3.0 Music Fundamentals
An introduction to musical notation, ear training, theory and analysis.
NOTE Students who hold Royal Conservatory Advanced Rudiments or higher should consult with the School for appropriate course placement. May not be taken for credit by students in the B.Mus. Plan.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 123 (36L;3G;36O;48P)
EXCLUSIONS *MUSC P52/3.0*.

MUSC 105/3.0 Foundations in Tonal Music
An exploration of the theoretical and practical applications of the rudiments of tonal music. Students gain fluency and competency in basic musicianship skills by completing modules in areas such as harmonization, ear-training, composition, arranging, music analysis, writing concert reviews, group performances and singing in the class choir.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MUSC 104/3.0 or completion of a recognized music conservatory examination in advanced rudiments.

MUSC 112/1.5 Medium Ensemble
Mid-size ensemble experience for qualified performers. Topics vary. Course includes weekly rehearsals of a wider variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 312).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 114/3.0 Introduction to Teaching Music to Children
Hands-on, blended approach to the theory and practice of teaching and engaging with children through music. Students will be introduced to concepts through educational activities and will learn to identify and describe musical characteristics heard in a variety of repertoire as well as perform short pieces appropriate for novice performers.
NOTE May not be taken for credit by students in the B.Mus. Plan.
LEARNING HOURS 120 (36L;24O;60P)
RECOMMENDATION MUSC 104/3.0 or *MUSC P52/3.0* is recommended.

MUSC 115/1.5 Large Ensemble
Large ensemble for qualified instrumentalists and singers. Topics vary. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term, for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 315).
LEARNING HOURS 168 (72Pc;96P)

PREREQUISITE Permission of the School upon audition.

MUSC 120/6.0 Applied Study I to IV (Performance)
A first year study of the student's applied subject (instrument or voice) in the performance concentration.
NOTE Open only to students who have demonstrated a considerably higher level of performance ability than the minimum required for B.Mus. admission.
LEARNING HOURS 263 (24Pc;23I;216P)
PREREQUISITE Permission of the School.
COREQUISITE MUSC 125/6.0.
EXCLUSIONS MUSC 121/6.0

MUSC 121/6.0 Applied Study I to IV
The first year of study of the student's chief practical subject (instrument or voice).
NOTE Accompanist fee - wind, brass, string, and voice students.
LEARNING HOURS 263 (24Pc;23I;216P)
EXCLUSION(S) MUSC 120/6.0; MUSC 125/6.0

MUSC 124/6.0 Applied Music I to IV
Private instrumental or vocal instruction for non-B.Mus. students. Auditions required.
NOTE In addition to the regular tuition fee, students are charged an additional fee ($1600 in 2020-21, but subject to change to cover the cost of private music lessons.)
NOTE Accompanist fee - wind, brass, string, and voice students.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 263 (24Pc;23I;216P)
RECOMMENDATION At least i) Royal Conservatory Grade IX (or equivalent) for pianists; or ii) Grade VIII piano and Grade VIII organ (or equivalent) for organists; or iii) Grade VIII (or equivalent) for all other instrumentalists and vocalists.
PREREQUISITE Permission of the School.

MUSC 125/6.0 Applied Study I (Performance Recital)
Students will perform in a public recital in accordance with the guidelines established by the Dan School of Music.
NOTE Accompanist fee - wind, brass, string, and voice students.
COREQUISITE MUSC 120/6.0.
EXCLUSION(S) MUSC 121/6.0

MUSC 127/3.0 Ear Training and Sight Singing I
Training in sight reading and dictation.
NOTE Students with RCM Grade 8 Theory or equivalent may request permission from the School to take the course.
PREREQUISITE (Registration in a MUTH or MUSC Specialization Plan) or MUSC 104/3.0 or permission of the School.

MUSC 129/3.0 Keyboard Skills
A fundamental keyboard skills course designed for non-keyboard majors.
NOTE Course content will support and coordinate with the traditional diatonic harmonic material covered in MUSC 191 but will also include other styles. Successful completion of the course will require a working fluency at the keyboard in sight-reading, melodic and harmonic analysis as well as transcription. Activities will include harmonization, transposition and improvisation.
NOTE Students require previous rudiments and piano experience to take this course.
LEARNING HOURS 120 (24Lb;96P)
RECOMMENDATION MUSC 191/6.0.
PREREQUISITE Registration in a MUTH or MUSC Specialization Plan or permission of the School.

MUSC 151/3.0 Introduction to Instrumental Composition
This course teaches students the basics of instrumental music composition in the Western Art Music tradition with a strong emphasis on creativity and class participation.
NOTE No prior experience with composition is required, but students must demonstrate a thorough understanding of the rudiments of music prior to enrollment.
LEARNING HOURS 136 (12L;24S;4G;96P)
PREREQUISITE Registration in a MUTH or MUSC Specialization Plan or MUSC 104/3.0 or *MUSC P52/3.0* or permission of the School.

EXCLUSIONS *MUSC 153/6.0*

MUSC 152/3.0 Introduction to Vocal Composition

This course teaches students the basics of vocal composition in the Western Art Music tradition with a strong emphasis on creativity and class participation.
NOTE No prior experience with composition is required, but students must demonstrate a thorough understanding of the rudiments of music prior to enrollment.
LEARNING HOURS 136 (12L;24S;4G;96P)
PREREQUISITE MUSC 104/3.0 or *MUSC P52/3.0* or permission of the School.
EXCLUSIONS *MUSC 153/6.0*

MUSC 156/3.0 Introduction to Digital Audio Recording, Editing, and Mixing

Basics of digital audio recording, with a focus on free/open-source software tools. Through assignments oriented towards mastering basics necessary for podcast or music recording/mixing, you will gain experience with digital audio workstation software for multitrack production, and tools such as EQ, compression, and limiting.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24Lb;24O;72P)

MUSC 171/3.0 Social History of Popular Music

A survey of important trends in 20th century Western popular music. Topics include genres, individual artists and groups, record labels and stylistic trends, and sociological issues.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)

MUSC 191/6.0 Theory and Analysis I

Diatonic voice-leading and harmony, principles of form and small structures (binary, ternary) through part-writing and analysis.
NOTE Students having received 80% or higher on a conservatory advanced rudiments exam may enroll in the course with permission of the School.
LEARNING HOURS 240 (72L;24T;144P)
PREREQUISITE (Registration in a MUTH or MUSC Specialization Plan) or a grade of A- in MUSC 104/3.0 or permission of the School.

MUSC 200/1.5 Small Ensemble

Chamber music, collaborative piano, or small ensemble experience for qualified instrumentalists and singers. Topics vary. Course includes weekly coachings and a minimum of one evaluation concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 300).
NOTE Collaborative Piano is strongly recommended for all piano and organ majors in the BMUS program.
LEARNING HOURS Vary
PREREQUISITE Permission of the School.

MUSC 210/3.0 Western Art Music: Crusades to Colonialism

This course is an examination of the styles, genres, and composers of Western art music between ca. 1000 and 1800 CE. Exploring the historical trajectory of Western music in global context, we will continue to build skills to critically analyze musical works and connect their production with social and cultural contexts.
LEARNING HOURS 119 (36L;18O;65P)
PREREQUISITE MUTH 110/3.0.
COREQUISITE MUSC 191/6.0.
EXCLUSIONS *MUSC 204/3.0*;) *MUSC 205/3.0*

MUSC 211/3.0 Western Art Music: Industrialization to the Internet

This course is an examination of the styles, genres, and composers of Western art music between 1750 and the present. Exploring the historical trajectory of Western music in global context, we will build skills to critically analyze musical works and connect their production with social and cultural contexts.

LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE MUTH 111/3.0.
COREQUISITE MUSC 191/6.0.
EXCLUSIONS MUSC 102/3.0; *MUSC 203/3.0*; *MUSC 204/3.0*

MUSC 212/1.5 Medium Ensemble
Mid-size ensemble experience for qualified performers. Topics vary. Course includes weekly rehearsals of a wider variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 312).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 215/1.5 Large Ensemble
Large ensemble for qualified instrumentalists and singers. Topics vary. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term, for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 315).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 220/6.0 Applied Study II (Performance)
Continuation of MUSC 120/6.0.
NOTE Students who do not hold the prerequisite may audition for admission to this course. They must obtain a grade of A- in the jury examination component of MUSC 121/6.0 or MUSC 124/6.0 and receive recommendation of the jury.
PREREQUISITE A grade of B in both MUSC 120/6.0 and MUSC 125/6.0.
COREQUISITE MUSC 225/6.0.
EXCLUSIONS MUSC 221/6.0

MUSC 221/6.0 Applied Study II
Continuation of MUSC 121/6.0.
NOTE Accompanist fee - wind, brass, string, and voice students.
PREREQUISITE MUSC 121/6.0.
EXCLUSIONS MUSC 220/6.0; MUSC 225/6.0

MUSC 224/6.0 Applied Music
Continuation of MUSC 124/6.0.
NOTE Accompanist fee - wind, brass, string, and voice students.
NOTE Open to non-B.Mus. students only.
PREREQUISITE MUSC 124/6.0 and permission of the School.

MUSC 225/6.0 Applied Study II (Performance Recital)
Students will perform in a public recital in accordance with guidelines established by the Dan School of Music.
NOTE Accompanist fee - wind, brass, string, and voice students.
COREQUISITE MUSC 220/6.0.
EXCLUSIONS MUSC 221/6.0

MUSC 227/3.0 Ear Training and Sight Singing II
A continuation of MUSC 127/3.0.
PREREQUISITE MUSC 127/3.0.

MUSC 229/3.0 Keyboard Lab
A comprehensive keyboard musicianship course in a laboratory format specifically designed for keyboard majors and others receiving advanced placement. Course content will include practical instrument-specific activities for pianists.
NOTE Course content will support and coordinate with the traditional diatonic harmonic material covered in MUSC 191 but will also include other styles. Successful completion of the course will require a working fluency at the keyboard in

sight-reading, melodic and harmonic analysis as well as transcription. Activities will include harmonization, transposition and improvisation.
RECOMMENDATION MUSC 292/3.0 and MUSC 293/3.0.
LEARNING HOURS 120 (24Lb;96P)
PREREQUISITE MUSC 129/3.0 or Permission of the School.

MUSC 240/3.0 Music of Video Games
An examination of the music of video games, focusing on sociological perspectives of gameplay. Content will include game history, theories of play, immersion and interactivity, interactions with social media and other online communities, and related interdisciplinary topics such as trope, intertextuality, and narrative.
LEARNING HOURS 120(36L;24O;60P)
PREREQUISITE Level 2 or above.
EXCLUSIONS MUSC 245/3.0 (Topic: Music and Video Games)

MUSC 245/3.0 Topics in Musics and Cultures
An exploration of a specific topic or skillset in musicology, ethnomusicology, music and society, and/or music creation.
LEARNING HOURS 120 (36L;24O;60P)
PREREQUISITE Level 2 or above.

MUSC 247/1.5 Music Practicum
A credit/non-credit practicum for 48 hours of extra-curricular work in music related fields, including School productions.
LEARNING HOURS 60 (12I;48P)
PREREQUISITE Level 2 or above and registration in a COCA, DRAM, MUSC, MUTH, or MAPP Plan.
EXCLUSIONS DRAM247/1.5 and MUTH 247/1.5

MUSC 253/3.0 Introduction to Jazz Improvisation
An introduction to the skills required to improvise in the jazz style. Students will develop their ability to improvise by analyzing, listening and performing repertoire from the Swing and Bebop eras.
PREREQUISITE Level 2 or above and registration in a MUSC Specialization or MUTH Plan or permission of the School.

MUSC 255/6.0 Electroacoustic Music Composition
Basic techniques of electroacoustic music composition, including recording, sound editing, synthesis, MIDI, sequencers and synthesizer voicing. Emphasis is also placed on the history and aesthetics of electroacoustic music through listening, discussion and analysis.
RECOMMENDATION Experience in music composition is encouraged but not a prerequisite.

MUSC 258/3.0 Science and Technology of Music
Practical aspects of the physics of musical instruments, architectural acoustics, physiology of the ear and of the voice, tuning and temperament, psychoacoustics, and audio electronics including analog and digital technologies for recording, synthesis and broadcasting. Attention will also be given to the history and literature of electroacoustic music.
LEARNING HOURS 114 (36L;12O;66P)

MUSC 270/3.0 Conducting Techniques
An introduction to basic principles of choral and instrumental conducting including baton and rehearsal techniques.
NOTE Rental of instruments may be required.
COREQUISITE 3.0 units from *MUSC 180/3.0; 181/3.0; MUSC 183/3.0*; *MUSC 185/3.0*; *MUSC 187/3.0;* MUSC 280/3.0; MUSC 281/3.0; MUSC 283/3.0; MUSC 285/3.0; MUSC 287/3.0

MUSC 272/3.0 Medieval Music Performance
A practical performance course devoted to the exploration of performance practice, musical works, and historical context of secular vocal and instrumental music of the Medieval era. The course will culminate in performances at England's Medieval Fair.
LEARNING HOURS 104 (36S;32Oc;36P)
NOTE Offered only at the Bader International Study Centre
PREREQUISITE Level two or above
COREQUISITE *DRAM 271/3.0;* MUTH 271/3.0.

MUSC 274/3.0 Music Education: Partnership Placement
A laboratory course emphasizing weekly field-based observations and supervised practice teaching experiences in music within schools and/or community organizations in conjunction with music education theory.

PREREQUISITE Level 2 or above and [registration in a MUSC or MUTH Plan or (MUSC 114/3.0 and 3.0 units from MUSC or MUTH)] or permission of the School.

MUSC 280/3.0 Vocal Techniques and Methods
Study of the principles of the musical voice. Topics include vocal care and development, singing techniques, diction and score study. The selection of age, agility, and culturally appropriate repertoire and activities will also be examined.
LEARNING HOURS 114 (36L;78P)
EXCLUSION *MUSC 180/3.0*

MUSC 281/3.0 Woodwind Techniques and Methods
Study of the principles of playing Woodwind Instruments through the performance of select instruments and examination of salient repertoire and pedagogical resources used to support beginner and intermediate students. Topics include handling and posture, playing techniques, ranges, fingerings, transpositions, maintenance and care.
NOTE Students will need to access their own instrument(s) and rental options will be made available on the first day of class if needed.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE (Registration in a MUSC, DRAM, or MUTH plan) or (MUSC 104 or MUSC 105) or permission of the School.
EXCLUSION *MUSC 181/3.0*

MUSC 282/3.0 Exploring Global Music in the Classroom
Group instruction in performing and teaching a selected World Music. Students will learn ways to introduce this music within an age-, ability-, and culturally-appropriate context to teaching.
LEARNING HOURS 114(36L;78P)
PREREQUISITE Level 2 or above.
EQUIVALENCY *MUSC 189/3.0*

MUSC 283/3.0 Brass Techniques and Methods
Study of the principles of playing brass instruments through the performance of select instruments and examination of salient repertoire and pedagogical resources used to support beginner and intermediate students. Topics include handling and posture, playing techniques, ranges, fingerings, transpositions, maintenance and care.
NOTE Students will need to access their own instrument(s) and rental options will be made available on the first day of class if needed.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE (Registration in a MUSC, DRAM, or MUTH plan) or (MUSC 104 or MUSC 105) or permission of the School.
EXCLUSION *MUSC 183/3.0*

MUSC 285/3.0 String Techniques and Methods
Study of the principles of orchestral stringed instruments through the performance of select instruments and examination of salient repertoire and pedagogical resources. Fundamental playing techniques will be emphasized including posture and handling, fingerings, bowings, tuning, and maintenance.
NOTE Students will need to access their own instrument(s) and rental options will be made available on the first day of class if needed.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE (Registration in a MUSC, DRAM, or MUTH plan) or (MUSC 104 or MUSC 105) or permission of the school.
EXCLUSION *MUSC 185/3.0*

MUSC 286/3.0 Women, Gender and Music
A study, from feminist perspectives, of women's roles in music and relation to music in popular and classical genres of various historic and contemporary traditions. Critical examination of the construct of gender and identity in several musics is included.
LEARNING HOURS 120 (36S;24O;60P)

MUSC 287/3.0 Percussion Techniques and Methods
Study of the principles of playing percussion instruments through performance of select instruments, and examination of salient repertoire and pedagogical resources. Students will also develop proficiency reading salient percussion notation and examine appropriate resources and activities for learning these instruments in a group setting.
LEARNING HOURS 114(36L;78P)
PREREQUISITES (Registration in a MUSC or MUTH plan) or (MUSC 104/3.0 or MUSC 105/3.0) or permission of the School.

EQUIVALENCY *MUSC 187/3.0*

MUSC 288/3.0 Guitar Techniques and Methods
Study of the principles of playing guitar through performance, and examination of salient repertoire and pedagogical resources. Topics include playing and accompaniment techniques, range, fingerings, handling, care and maintenance. Students will examine how guitar playing techniques can be transferred to ukelele and salient repertoire for teaching.
NOTE Students must provide their own instruments.
LEARNING HOURS 114(36L;78P)
PREREQUISITES (Registration in a MUSC or MUTH plan) or (MUSC 104 or MUSC 105) or permission of the School
EQUIVALENCY *MUSC 188/3.0*

MUSC 289/3.0 Global Musics
An introduction to the study of music in culture, based on world music traditions. The course focuses on a selection of Native North American, African, European, Eastern and Middle Eastern, as well as other musical contexts.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 112 (36L;24O;52P)

MUSC 292/3.0 Theory and Analysis IIA
Tonal and chromatic voice-leading and harmony, phrase structure, bipartite, tripartite, and composite formal structures, through part-writing and analysis.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE A minimum grade of C- in MUSC 191/6.0 or permission of the School.

MUSC 293/3.0 Theory and Analysis IIB
Chromatic voice-leading and harmony, large-scale and expanded formal structures, including sonata, rondo, and expanded 19th-century forms, through part-writing and analysis.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE MUSC 292/3.0.

MUSC 300/1.5 Small Ensemble
Chamber music, collaborative piano, or small ensemble experience for qualified instrumentalists and singers. Topics vary. Course includes weekly coachings and a minimum of one evaluation concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 300).
NOTE Collaborative Piano is strongly recommended for all piano and organ majors in the BMUS program.
LEARNING HOURS Vary
PREREQUISITE Permission of the School.

MUSC 312/1.5 Medium Ensemble
Mid-size ensemble experience for qualified performers. Topics vary. Course includes weekly rehearsals of a wider variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 312).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition

MUSC 315/1.5 Large Ensemble
Large ensemble for qualified instrumentalists and singers. Topics vary. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term, for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 315).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 320/6.0 Applied Study III (Performance)
Continuation of MUSC 220/6.0.
NOTE Students who do not hold the prerequisite may audition for admission to this course. They must obtain a grade of A- in the jury examination component of MUSC 221/6.0 or MUSC 224/6.0 and receive recommendation of the jury.
PREREQUISITE A grade of B in both MUSC 220/6.0 and MUSC 225/6.0.
COREQUISITE MUSC 325/6.0.
EXCLUSION(S) MUSC 321/6.0; MUSC 324/6.0

MUSC 321/6.0 Applied Study III
Continuation of MUSC 221/6.0 at an advanced level.
NOTE Accompanist fee - wind, brass, string, and voice students.
PREREQUISITE A grade of B- in (MUSC 220/6.0 or MUSC 221/6.0).
EXCLUSION(S) MUSC 320/6.0; MUSC 324/6.0; MUSC 325/6.0

MUSC 324/6.0 Applied Music
Continuation of MUSC 224/6.0.
NOTE Open to non-B.Mus. students only.
NOTE Accompanist fee - wind, brass, string, and voice students.
PREREQUISITE A grade of B- in MUSC 224/6.0.
EXCLUSION MUSC 320/6.0; MUSC 321/6.0

MUSC 325/6.0 Applied Study III (Performance Recital)
Students will perform in a public recital in accordance with guidelines established by Dan School of Drama and Music.
NOTE Accompanist fee - wind, brass, string, and voice students.
COREQUISITE MUSC 320/6.0.
EXCLUSION MUSC 321/6.0

MUSC 326/3.0 Lyric Diction
Introduction to phonetics, the International Phonetic Alphabet and voice physiology together with a study of the rules of pronunciation in English, Italian, French and German. Emphasis on active skills, singing and discussion. Highly recommended for all voice students and students planning graduate study in voice, choral conducting or collaborative piano.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above and permission of the School.
EQUIVALENCY *MUSC 226/3.0*.

MUSC 328/3.0 Applied Pedagogy I
The practical study of teaching techniques of standard musical repertoire (solo, chamber, orchestral, operatic, etc.) of a particular instrument. The course requires student performances of representative musical works. The instruments studied will rotate from year to year as resources permit.
NOTE Students must have previous experience on the instrument/vocal area listed in the topic ID. Contact the School for more information.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above and permission of the School.

MUSC 329/3.0 Applied Pedagogy II
The practical study of teaching techniques of standard musical repertoire (solo, chamber, orchestral, operatic, etc.) of a particular instrument. The course requires student performances of representative musical works. The focus of study will rotate from year to year as resources permit.
NOTE Students must have previous experience on the instrument/vocal area listed in the topic ID. Contact the School for more information.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 or above and permission of the School.

MUSC 333/3.0 Dalcroze, Kodaly and Orff
An historical overview and introduction to the philosophical and pedagogical views of Emile Jaques-Dalcroze, Zoltan Kodály and Carl Orff to teaching music.
LEARNING HOURS 120 (12L;12Pc;12G;24O;60P)
PREREQUISITE Level 3 or above and MUSC 274/3.0.

MUSC 334/3.0 Elementary Music Education
An examination of the literature, instructional methods, resources, and planning structures for teaching music to elementary students.
LEARNING HOURS 120 (36G;24O;60P)
PREREQUISITE MUSC 274/3.0 or permission of the School
EXCLUSIONS *MUSC 332/3.0*; *MUSC 336/3.0*

MUSC 335/3.0 Music Education in the Community
This course examines formal, informal and non-formal structures that support music teaching and learning in the community across the lifespan.
NOTE Non-Music students should note that a significant music background is required to be successful in this course.
LEARNING HOURS 120 (36G;24O;60P)
PREREQUISITE Level 3 or above and registration in a MUTH or MUSC Plan or permission of the School.

MUSC 338/3.0 Secondary Music Education
An introduction to the methods, materials, and curriculum design suitable for teaching music to senior high school students.
LEARNING HOURS 106 (36L;6Pc;12G;52P)
PREREQUISTES Level 3 or above and 6.0 units from (*MUSC 180/3.0-MUSC 188/3.0*; MUSC 280/3.0; MUSC 281/3.0; MUSC 283/3.0-288/3.0

MUSC 351/3.0 Acoustic Composition
Guidance in the development of the student as a composer for instruments and voice.
NOTE Students must submit a portfolio of compositions to the Music Office by the last day of classes in the Winter Term. Admission is determined through evaluation of portfolios by a Faculty jury. Submission of a portfolio does not guarantee admission.

MUSC 352/3.0 Electroacoustic Composition
Guidance in the development of the student as a composer of electroacoustic music.
NOTE Students must submit in writing to the Music Office their request to apply for this course by the last day of classes in the Winter Term.
PREREQUISITE MUSC 255/6.0 and permission of the School.

MUSC 354/6.0 Acoustic Composition
Guidance in the development of the student as a composer for instruments and voice.
NOTE Students must submit a portfolio of compositions to the Music Office by the last day of classes in the Winter Term. Admission is determined through evaluation of portfolios by a Faculty jury. Submission of a portfolio does not guarantee admission.

MUSC 355/6.0 Electroacoustic Composition
Guidance in the development of the student as a composer of electroacoustic music.
NOTE Students must submit in writing to the Music Office their request to apply for this course by the last day of classes in the Winter Term.
PREREQUISITE MUSC 255/6.0 and permission of the School.

MUSC 358/3.0 Jazz and Popular Music Arranging
Notation, symbols and format of popular music, jazz and music theatre. Scoring and arranging for small jazz groups, studio bands, rock bands, and commercial orchestra.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE MUSC 293/3.0 or permission of the School.

MUSC 370/3.0 Advanced Conducting
Study of advanced conducting techniques, score analysis and rehearsal procedures. Issues of style, interpretation and relationship between gesture and response will be examined through the preparation of selected repertoire. Students will explore rehearsal techniques and develop manual dexterity and baton technique.
LEARNING HOURS 120 (24L;12; Lb;12O;72P)
PREREQUISITE MUSC 270/3.0 or permission of the School.

MUSC 380/3.0 Topics in Music History and Culture I
An intensive study of a topic within historical musicology, ethnomusicology, or popular music(s).
LEARNING HOURS 112 (36L;24O;52P)
PREREQUISITE MUSC 191/6.0 and [(MUSC 210/3.0 or MUSC 211/3.0) or (*MUSC 203/3.0* or *MUSC 204/3.0* or *MUSC 205/3.0*)] or permission of the School.

MUSC 381/3.0 Topics in Music
An intensive survey of a topic within music.
LEARNING HOURS 112 (36L;24O;52P)
PREREQUISITE Level 3 or above

MUSC 388/3.0 Music in Canada Since 1930
A study of the lives and works of composers and musicians in Canada, in a diverse range of genres, as well as the development of institutions and infrastructure in the arts. This course will approach these topics through various lenses including nationalism, politics, pedagogy, and Settler/Indigenous interactions.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE Level 3 or above and (MUSC 104/3.0 or MUSC 191/6.0) or permission of the School.

MUSC 392/3.0 Theory and Analysis III
Introductory study of 20th- and 21st-century systems of musical organization through analysis and writing.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE MUSC 293/3.0 or permission of the School.

MUSC 393/3.0 Music and Digital Media
The study of music, technology, and digital media/multimedia and their interactions in contemporary contexts.
PREREQUISITE Level 3 or above or permission of the School.

MUSC 394/3.0 Contrapuntal Analysis
Study, through analysis, of contrapuntal procedures and styles, from the earliest use of counterpoint through to contemporary contrapuntal compositions.
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE MUSC 293/3.0 or permission of the School.

MUSC 395/3.0 Internship
Students can apply to undertake a practical internship in applied music, music education, or administration.
NOTE Students will be given a grade of Pass/Fail for work done.
LEARNING HOURS 120 (96Oc;24P)
PREREQUISITE Level 3 or above and registration in a MUSC Plan and a GPA of 2.9 in MUSC and permission of the School.
EXCLUSIONS DRAM 395/3.0; FILM 395/3.0; MUTH 395/3.0

MUSC 396/3.0 Introduction to Orchestration
The examination of individual instruments in the string, woodwind, brass and percussion sections. Course includes score analysis, transcription, arranging and orchestration. A recommended course for MUSC Specialization composition students.
PREREQUISITE MUSC 191 or permission of the School.

MUSC 397/3.0 Introduction to MIDI Orchestration
This course provides foundational knowledge in MIDI Orchestration and Digital Audio Workstation software. Students demonstrate their understanding of the technology by creating compositions in a variety of genres and styles. The final project introduces students to writing music to support a short video.
LEARNING HOURS 120 (48L;72P)
PREREQUISITE Level 3 in BMus or Level 3 and (3.0 from MAPP311/3.0 or MUSC255/3.0 or MUSC396/3.0) or permission of the School.
EXCLUSIONS MUSC 475/3.0 (Topic: Intro. To MIDI Orchestration)

MUSC 398/3.0 Modal Counterpoint
Study, through rule-based writing, of 16th century modal counterpoint, from two-part species exercises to free counterpoint in Renaissance style.
LEARNING HOURS 114 (36L;78P)

PREREQUISITE MUSC 293/3.0 or permission of the School.

MUSC 399/3.0 Tonal Counterpoint
Study, through composition, of the contrapuntal procedures of the 18th century, with an emphasis on J.S. Bach's two-part inventions and fugues.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE MUSC 293/3.0 or permission of the School.

MUSC 400/1.5 Small Ensemble
Chamber music, collaborative piano, or small ensemble experience for qualified instrumentalists and singers. Topics vary. Course includes weekly coachings and a minimum of one evaluation concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 300).
NOTE Collaborative Piano is strongly recommended for all piano and organ majors in the BMUS program.
LEARNING HOURS Vary.
PREREQUISITE Permission of the School.

MUSC 412/1.5 Medium Ensemble
Mid-size ensemble experience for qualified performers. Topics vary. Course includes weekly rehearsals of a wider variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 312).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 415/1.5 Large Ensemble
Large ensemble for qualified instrumentalists and singers. Topics vary. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term, for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUSC 315).
LEARNING HOURS 168 (72Pc;96P)
PREREQUISITE Permission of the School upon audition.

MUSC 420/6.0 Applied Study IV (Performance)
Continuation of MUSC 320/6.0.
NOTE Students who do not hold the prerequisite may audition for admission to this course. They must obtain a grade of A- in the jury examination component of MUSC 321/6.0 or MUSC 324/6.0 and receive recommendation of the jury.
PREREQUISITE A grade of B in both MUSC 320/6.0 and MUSC 325/6.0.
COREQUISITE MUSC 425/6.0.
EXCLUSIONS MUSC 421/6.0; MUSC 424/6.0

MUSC 421/6.0 Applied Study IV
Continuation of MUSC 321/6.0.
NOTE Accompanist fee - wind, brass, string, and voice students.
PREREQUISITE A grade of B- in (MUSC 320/6.0 or MUSC 321/6.0).
EXCLUSIONS MUSC 420/6.0; MUSC 424/6.0; MUSC 425/6.0

MUSC 424/6.0 Applied Music
Continuation of MUSC 324/6.0.
NOTE Open to non-B.Mus. students only.
NOTE Accompanist fee - wind, brass, string, and voice students.
PREREQUISITE MUSC 324/6.0 and permission of the School.
EXCLUSIONS MUSC 420/6.0; MUSC 421/6.0

MUSC 425/6.0 Applied Study IV (Performance Recital)

Students will perform in a public recital in accordance with guidelines established by the Dan School of Music.
NOTE Accompanist fee - wind, brass, string, and voice students.
COREQUISITE MUSC 420/6.0.
EXCLUSIONS MUSC 421/6.0

MUSC 438/3.0 Music Education Seminar
Advanced study and synthesis of educational theories and practices in music introduced in music education courses. Students are expected to engage in independent and cooperative study of agreed upon topics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above or permission of the School

MUSC 443/3.0 Introduction to Schenkerian Analysis
The concepts and principles of a reductive/linear approach to the analysis of music named after its first proponent, Heinrich Schenker. Both theoretical and practical applications are studied.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE MUSC 293/3.0

MUSC 445/3.0 Topics in Advanced Analysis
Intensive study of a particular style or method of analysis, usually of a specific musical genre.
LEARNING HOURS 126 (36S;12O;78P)
PREREQUISITE MUSC 392/3.0 or permission of the School.

MUSC 446/3.0 Advanced Analysis of 20th-Century Music
Advanced study of an aspect of organization in 20th-century music through analysis of the repertoire and analytical readings.
LEARNING HOURS 126 (36S;12O;78P)
PREREQUISITE MUSC 392/3.0 or permission of the School.

MUSC 451/3.0 Acoustic Composition
A continuation of MUSC 351/3.0, MUSC 354/6.0.
NOTE In addition to the prerequisites, students must submit a portfolio of compositions to the Music Office by the last day of classes in the Winter Term. Admission is determined through evaluation of portfolios by a Faculty jury. Submission of a portfolio does not guarantee admission.
PREREQUISITES MUSC 351/3.0 or MUSC 354/6.0.

MUSC 452/3.0 Electroacoustic Composition
A continuation of MUSC 352/3.0, MUSC 355/6.0.
NOTE Students must submit in writing to the Music Office their request to apply for this course by the last day of classes in the Winter Term.
PREREQUISITES (MUSC 352/3.0 or MUSC 355/6.0 or MUSC 356/6.0) and permission of the School.

MUSC 454/6.0 Acoustic Composition
A continuation of MUSC 351/3.0, MUSC 354/6.0.
NOTE In addition to the prerequisites, students must submit a portfolio of compositions to the Music Office by the last day of classes in the Winter Term. Admission is determined through evaluation of portfolios by a Faculty jury. Submission of a portfolio does not guarantee admission.
LEARNING HOURS 264 (24I;240P)
PREREQUISITE MUSC 351/3.0 or MUSC 354/6.0.

MUSC 455/6.0 Electroacoustic Composition
A continuation of MUSC 352/3.0, MUSC 355/6.0.
NOTE Students must submit in writing to the Music Office their request to apply for this course by the last day of classes in the Winter Term.
PREREQUISITE (MUSC 352/3.0 or MUSC 355/6.0 or MUSC 356/6.0) and permission of the School.

MUSC 470/3.0 Topics in Music Education I
Seminars offered by faculty related to their music education research/interests. Content varies year to year. See departmental brochure for further details.

PREREQUISITE Level 3 or above or permission of the School.

MUSC 475/3.0 Special Topics in Music I
An intensive analysis of a particular topic within a specific area of music: ethnomusicology, musicology or theory/analysis. Details regarding specific topics will be available from Dan School of Drama and Music on an annual basis.
PREREQUISITE Level 3 or above and permission of the School.

MUSC 476/3.0 Special Topics in Music II
An intensive analysis of a particular topic within a specific area of music: ethnomusicology, musicology or theory/analysis. Details regarding specific topics will be available from Dan School of Drama and Music on an annual basis.
PREREQUISITE Level 3 or above and permission of the School.

MUSC 477/3.0 Special Topics in Music III
An intensive analysis of a particular topic within a specific area of music. Topics vary by year.
LEARNING HOURS 120 (24S;12G;24O;60P)
PREREQUISITE Level 3 or above and permission of the School.

MUSC 480/3.0 Genre Studies
An intensive study of the development of a particular musical genre. Emphasis will be placed on the analysis of significant contributions to the genre and the place of the genre in the total cultural milieu of a given period. Content varies from year to year.
LEARNING HOURS 127 (36L;91P)
PREREQUISITE MUSC 293/3.0 and [(MUSC 210/3.0 or MUSC 211/3.0) or (*MUSC 203/3.0* or *MUSC 204/3.0* or *MUSC 205/3.0*)] or permission of the School.

MUSC 481/3.0 Composer Studies
A detailed examination of the life, times and works of a particular composer. Content varies from year to year.
LEARNING HOURS 127 (36L;91P)
PREREQUISITE MUSC 293/3.0 and [(MUSC 210/3.0 or MUSC 211/3.0) or (*MUSC 203/3.0* or *MUSC 204/3.0* or *MUSC 205/3.0*)] or permission of the School.

MUSC 486/3.0 Area Studies in Ethnomusicology
An intensive study of the music culture of a specific country or geographical area.
PREREQUISITE (Level 3 or above and [*MUSC 103/3.0* or MUSC 289/3.0]) or permission of the School.

MUSC 490/3.0 Gender and Popular Music
In this course we explore gender, sexuality and performativity in Western popular music with an emphasis on musical technologies, musical consumption practices, and sonic and visual texts. A range of musical genres will be covered with a particular emphasis on rock, pop, country, rap, and R and B.
NOTE Not open to students who previously have taken Gender and Popular Music as a special topics course (MUSC 475/3.0, Special Topics in Music I).
LEARNING HOURS 120 (36S;12O;72P)
PREREQUISITE Level 3 or above.
EXCLUSIONS MUSC 475/3.0 (2013-14 to 2016-17)

MUSC 491/3.0 Music and Mass Media
In this course we explore both how we consume sound and music within a range of media (film, television, radio), and where we consume it (homes, elevators, gyms, grocery stores) in order to help educators think critically about the functions and effects of sound and music in everyday environments.
NOTE Not open to students who previously have taken Music and Mass Media as a special topics course (MUSC 470/3.0, Topics in Music Education I).
LEARNING HOURS 120 (36S;12O;72P)
PREREQUISITE Level 3 or above.
EXCLUSIONS MUSC 470/3.0 (2011-12 to 2014-15)

MUSC 500/6.0 Honours Thesis
A substantive research project in music on a topic of the student's choice, completed under the supervision of a faculty member.

NOTE MUTH 380/3.0 is recommended as a prerequisite for bibliographic and qualitative projects. MUTH 387/3.0 is recommended for quantitative projects.
LEARNING HOURS 220 (36I;184P)
EQUIVALENCY *MUSC 592/6.0*.
PREREQUISITE Level 4 and registration in a MUSC Major Plan and permission of the School.
COREQUISITE MUTH 380/3.0 or MUTH 387/3.0.
EXCLUSION(S) *MUSC 592/6.0*.

MUSC 501/3.0 Directed Special Study
Advanced supervised study in music research.
NOTE In addition to the prerequisites indicated, the School may require a grade of A- in any MUSC course relevant to the subject of study.
LEARNING HOURS 110 (18I;92P)
EQUIVALENCY *MUSC 473/3.0*, *MUSC 474/3.0*.
PREREQUISITE Level 4 and a GPA of 3.50 in MUSC and permission of the School.
EXCLUSIONS *MUSC 473/3.0*; *MUSC 474/3.0*

MUTH 110/3.0 The Republic to Rationalism: History, Arts, and Performance I
An introduction to the study of Western music, theatre, fine art, and literature in historical and global perspective. Using drama and music as a focal point, this interdisciplinary course will place artistic creation in a social, philosophical, and political chronological framework. Key periods include European Antiquity, Renaissance, and Baroque.
LEARNING HOURS 114 (36L;36O;42P)

MUTH 111/3.0 Listening to Revolutions: History, Arts, and Performance II
An introduction to the study of Western music, theatre, fine art, and literature in historical and global perspective. Using drama and music as a focal point, this interdisciplinary course will place artistic creation in a social, philosophical, and political chronological framework. Key periods include European Romanticism, Modernism, and Popular Culture.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 114 (36L;36O;42P)

MUTH 160/1.5 Music Theatre Ensemble
Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUTH 360).
LEARNING HOURS 168 (72Pc;24G;72P)
PREREQUISITE Permission of the School upon audition.

MUTH 201/3.0 Sex and Violence in Performance
This course is structured around a series of case studies of particular moments in the history of the representation of sex and violence in dramatic and musical performances.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 2.

MUTH 210/3.0 Physiology and Production of the Voice
A study of vocal techniques including Legitimate in the Golden Age of Musical Theatre, Belt/Mixed Belt in contemporary musicals and popular music culture, and Classical/Operatic styles. The course incorporates current research in the functional utility of breath and sound production and an emphasis on the application of practical singing/listening.
NOTE BMUS voice majors are encouraged to take this course and may enrol without the prerequisite through the School.
LEARNING HOURS 120 (24S;12G;84P)
PREREQUISITE (*MUSC 180/3.0* or MUSC 280/3.0 or registration in a MUTH plan or permission of the School based on previous singing experience.)

MUTH 211/3.0 Dance for Music Theatre
A continuation of dance, movement, and performance techniques developed in previous instruction. This course will include the study of the creation of choreography for ensemble members. Students will learn to choreograph a musical theatre piece with a proper historical context, technique, and relationship to appropriate text.
NOTE Students with previous intermediate private dance experience, including through Queen's clubs, are encouraged to request permission to enroll.
LEARNING HOURS 120 (36S;18G;66P)
PREREQUISITE Registration in a MUTH Plan, or permission of the School..

MUTH 231/3.0 Musical Theatre
An examination of the major trends in musical theatre production and theory since the 19th century, exploring the work of important composers and lyricists and the structure of musical theatre works.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 2 and registration in a DRAM; MUSC; or MUTH Plan or permission of the School.
EQUIVALENCY *DRAM 216/3.0*.

MUTH 232/3.0 Opera
An introduction to opera through the study of selected works from the Baroque era to the 20th century. Equal attention will be paid to literary, musical, and visual aspects.
LEARNING HOURS 120 (36L;84P)
EQUIVALENCY *MUSC 287/3.0*

MUTH 240/3.0 Digital Disruption in the Creative and Performing Arts
With so many digital disruptions and new intermediaries affecting the way creative works are conceived, created, distributed, and consumed, this course explores a range of impacts on the entertainment sector, inspired by the Internet, digital convergence, and mass adoption of mobile and social consumer technologies.
LEARNING HOURS 120 (12L;48O;60P)

MUTH 245/3.0 Topics in Music Theatre
An exploration of a specific topic or skill set in Music Theatre.
LEARNING HOURS 120 (12L;48O;60P)
PREREQUISITE Level 2 or above.

MUTH 247/1.5 Music Theatre Practicum
A credit/non-credit practicum for 48 hours of extra-curricular work in music theatre related fields, including departmental productions.
LEARNING HOURS 120(36l;84P)
PREREQUISITE Level 2 or above and registration in a COCA, DRAM, MAPP, MUSC, or MUTH Plan
EXCLUSIONS DRAM 247/1.5 and MUSC 247/1.5

MUTH 250/3.0 Structures of Music Theatre
An introduction to the building blocks of music theatre, including music, book/libretto, staging, choreography, and voice. Drawing on examples from opera, operetta, musical theatre, cabaret, avant-garde, and vaudeville, and engaging in multi-media and live documents, students will delve deeply into questions about how music theatre works.
LEARNING HOURS 120(36L;12O;72P)

MUTH 251/3.0 Issues in Music Theatre
An introduction to the ways that vaudeville, cabaret, operetta, opera, and musical theatre serve as multi-layered sites of political consequence. By placing these works in dialogue with studies in race, cultural politics, queerness, disability, and aesthetics, students will understand music theatre's potential for intervention in our world.
LEARNING HOURS 120(36L;12O;72P)

MUTH 260/1.5 Music Theatre Ensemble
Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUTH 360).
LEARNING HOURS 168 (72Pc;24G;72P)
PREREQUISITE Permission of the School upon audition.

MUTH 271/1.5 Medieval Literature in the Performing Arts
A seminar course devoted to the exploration of drama and music from the Medieval period in England. Students will examine documentation from both religious and secular traditions and their context within society.
NOTE Only offered at the BISC
LEARNING HOURS 120 (36s;24Oc;60P)
EQUIVALENCY *DRAM 271/3.0.*
PREREQUISITE Level 2 or above
.

MUTH 310/3.0 Dancer-Singer in Music Theatre
An applied course integrating advanced-level singing, dancing, and movement techniques, choreography, devising, and other creative applications in music theatre scenes. Through written assignments and performance, students prepare and perform scenes that integrate the work of the composer, lyricist, and book writer.
NOTES Students with previous singing and advanced private dance class experience, including through Queen's clubs, are encouraged to request permission to enrol.
LEARNING HOURS 120 (24S;12G;84P)
PREREQUISITE Registration in a MUTH plan, or 3.0 units from (MUSC 124/6.0, MUSC 121/6.0, MUSC 120/6.0, MUSC 180/3.0, MUSC 280/3.0, MUTH 210) and MUTH 211/3.0, or permission of the School.

MUTH 320/3.0 Song Interpretation
Preparation and examination of selected Lieder, music theatre, and/or opera aria repertoire in duo form for singers and pianists. Aspects of interpretation and execution of each performance will be discussed by instructors, with additional input from class participants.
NOTE A previous course in keyboard accompaniment or fluency in sight-reading is highly recommended for pianists taking this course.
LEARNING HOURS 108 (36G;72P)
PREREQUISITE Level 3 or above and (MUSC 121/6.0 or MUSC 124/6.0 or MUTH 210/3.0).

MUTH 329/3.0 Topics in Music Theatre
An intensive study of a particular topic within the area of Music Theatre.
LEARNING HOURS 120 (36S;24O;60P)
PREREQUISITE Level 3 and registration in a DRAM; MUSC; or MUTH Plan, or permission of the School.

MUTH 331/3.0 Music Direction for Music Theatre
Theoretical knowledge and practical application of skills required for music direction in Music Theatre, including musical theatre, opera, song cycles, reviews, cabarets, concerts, proof of concepts, and workshopped productions. Students will develop transferable skills to work as a music director across performance genres.
LEARNING HOURS 120 (12L;24Pc;12O;72P)
EQUIVALENCY *MUSC 373/3.0*.
PREREQUISITE (Level 3 or above and registration in a DRAM, MUSC, MUTH, MAPP, or COCA plan) or permission of the School
EXCLUSION MUSC 329 (Winter 2020 only: "Music Direction in Music Theatre")

MUTH 332/3.0 Opera Performance
Exploration and discussion of historical and contemporary performances as well as theories of acting, character development, staging and other topics related to Opera performance. Knowledge will be applied and expanded through live performance of scenes from the repertoire. Course may focus on a specific work, composer, or theme.
NOTE Students enrolling in this course should have previous classical singing experience.
LEARNING HOURS 120 (12L;24Lb;84P)
PREREQUISITE Level 3 and above

MUTH 333/3.0 Music Theatre Creation Lab
An exploration of the varied components of Music Theatre creation through the practical application of writing, designing and publicly performing short, original music theatre scenes. Students will work in small groups to create all aspects of the original scenes including script, lyrics, music, staging, sets, costumes and promotion.
LEARNING HOURS 120 (36L;24GL;60P)
PREREQUISITE Level 3 and registration in DRAM, MUSC or MUTH Plan, or permission of the school.

MUTH 340/3.0 Arts Professionalism
An introduction to the principles and skills necessary for a successful career in the arts centered around business aspects as well as important facets of professionalism required in today's arts fields. Topics may include business practices, concert planning, grant writing, promotion and publicity, and the role of supporting professionals.
LEARNING HOURS 120 (36L;24O;60P)
EQUIVALENCY *MUSC 340/3.0*.
PREREQUISITE Level 3 or above and registration in an ARTF, ARTH, DRAM, FILM, MAPP, MUSC, MUTH or STSC Plan.
EXCLUSION(S) DRAM 319/3.0 (Fall 2016)

MUTH 360/1.5 Music Theatre Ensemble
Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUTH 360).
LEARNING HOURS 168 (72Pc;24G;72P)
PREREQUISITE Permission of the School upon audition.

MUTH 380/3.0 Research Methods in the Performing Arts
Further development of research skills from foundational courses, investigating bibliographic, archival, ethnographic, and embodied research methodologies. Other topics include critical theories, ethical considerations, and issues of representation.
LEARNING HOURS 120 (36S;36O;48P)
PREREQUISITE Level 3 or above.
EXCLUSION(S) *MUSC 385/3.0*; *MUSC 386/3.0*

MUTH 387/3.0 Research in Performing Arts Education
The course examines research and research methodologies that underpin the discipline.
LEARNING HOURS 120 (36G;12O;72P)
PREREQUISITE Level 3 or above and registration in a DRAM, MUSC or MUTH Plan.

MUTH 395/3.0 Internship
Students can apply to undertake a practical internship in music theatre.
NOTE Students will be given a grade of Pass/Fail for work done.
LEARNING HOURS 120 (96Oc;24P)
PREREQUISITE Level 3 or above and registration in a DRAM, MUSC, or MUTH Plan and a GPA of 2.9 and permission of the School.
EXCLUSION(S) DRAM 395/3.0; FILM 395/3.0; MAPP 395/3.0; MUSC 395/3.0; MUTH 396/3.0

MUTH 396/3.0 Internship
Students can apply to undertake a practical internship in music theatre.
NOTE Students will be given a grade of Pass/Fail for work done.
LEARNING HOURS 120 (96Oc;24P)
PREREQUISITE Level 3 or above and registration in a DRAM, MUSC, or MUTH Plan and a GPA of 2.9 and permission of the School.
EXCLUSION(S) DRAM 395/3.0; FILM 395/3.0; MAPP 395/3.0; MUSC 395/3.0

MUTH 429/3.0 Topics in Music Theatre
An intensive study of a particular topic within the area of Music Theatre.
LEARNING HOURS 120(36S;24O;60P)
PREREQUISITE Level 4 and registration in a DRAM; MUSC; or MUTH Plan, or permission of the School

MUTH 440/3.0 Selected Opera Designers
An analysis of selected opera designers focusing on the kinaesthetics of design for opera to reflect society. Emphasis is placed on the intersections of music with singing, and choreography and a dynamic visuality.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and registration in a COCA, DRAM, MAPP, MUSC, MUTH or STSC Plan.
EXCLUSION(S) DRAM 419/3.0-001 (2017-2018)

MUTH 460/1.5 Music Theatre Ensemble
Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.
NOTE Students will be registered into the course number that matches their current level of study. (i.e: if a student is in third year they will be registered in MUTH 360).
LEARNING HOURS 168 (72Pc;24G;72P)
PREREQUISITE Permission of the School upon audition.

MUTH 500/6.0 Senior Project
An independent advanced project or thesis in any area of the basic curriculum in music/theatre, supervised and evaluated by faculty.
NOTE In addition to the prerequisites indicated, the School may require a grade of A- in any DRAM, MUSC or MUTH course relevant to the subject of study.
LEARNING HOURS 220 (36I;184P)
PREREQUISITE Level 4 and a GPA of 3.50 in DRAM/MUSC/MUTH and permission of the School.

MUTH 501/3.0 Directed Special Study

An independent advanced project in any area of the basic curriculum in music/theatre, supervised and evaluated by faculty.

NOTE In addition to the prerequisites indicated, the School may require a grade of A- in any DRAM, MUSC or MUTH course relevant to the subject of study.

LEARNING HOURS 110 (18I;92P)

PREREQUISITE Level 4 and a GPA of 3.50 in DRAM, MUSC, or MUTH Plan and permission of the School.

NSCI 323/3.0 Cellular Neuroscience
Fundamental properties of the nervous system. Emphasis placed on the properties of neurons that are fundamental to neuron-to-neuron communication, the formation of neural circuits, and the repair of the nervous system following injury. Tutorials introduce techniques and neurological problems that illustrate principles of neural function.
PREREQUISITE BIOL 339/3.0 or KNPE 125/3.0 or KNPE 225/3.0 or (PHGY 215/3.0 and PHGY 216/3.0) or PSYC 271/3.0 or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

NSCI 324/3.0 Systems Neuroscience
Fundamental properties of the nervous system. Emphasis placed on the properties of neurons and neural circuits that underlie behaviour and cognitive functions within selected neural systems, such as sensory, motor, reward, and autonomic systems. Tutorials introduce techniques and neurological problems that illustrate principles of neural function.
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or PSYC 271/3.0 or NSCI 323/3.0 or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

NSCI 401/3.0 Introduction to Theoretical Neuroscience
This course will provide an introduction to the main modelling approaches and theoretical concepts in Neuroscience. The computational anatomy of the brain and how it implements perception, learning, memory, decision making and motor control, among other topics, will be discussed.
RECOMMENDATION NSCI 323/3.0, NSCI 324/3.0, ANAT 312/3.0, PSYC 271/3.0.
PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and (STAT 263/3.0 or STAT 267/3.0 or STAT 367/3.0 or COMM 162/3.0 or ECON 250/3.0 or PSYC 202/3.0 or SOCY 211/3.0 or BIOL 243/3.0 or CHEE 209/3.0 or GPHY 247/3.0 or KNPE 251/3.0 or POLS 385/3.0 or NURS 323/3.0 or *PHED 251/3.0*).

NSCI 403/3.0 Introduction to Neuroimaging
This course covers the theory and practice of modern neuroimaging methods. Topics include data acquisition, research study design, and analysis methods. Functional MRI is presented in the most depth, but computed tomography (CT), positron emission tomography (PET), and single photon emission computed tomography (SPECT), are also covered.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (registration in a LISC Major or Specialization Plan) and (a GPA of 2.5) and one of (NSCI 323/3.0; NSCI 324/3.0; ANAT 312/3.0; PSYC 271/3.0; PSYC 370/3.0).

NSCI 414/3.0 Progress in Neuroanatomy and Neuropharmacology
A contemporary and comprehensive assessment of the neurochemical anatomy and neuropharmacology of the mammalian and human nervous systems as they relate to development, function and disease. Topics will include dynamics of neurotransmitter interactions, neuronal drug receptor interactions and second messengers, neurotoxicity associated transmitters and neural growth factors.
NOTE BMCO students should contact the Department regarding prerequisites.
LEARNING HOURS 130 (24L;10T;96P)
PREREQUISITE A GPA of 2.5 and (a grade of B- in ANAT 312/3.0 or NSCI 323/3.0 or PHAR 340/3.0).
COREQUISITE NSCI 324/3.0.

NSCI 422/3.0 Cellular and Molecular Neuroscience
A course providing 1) the essentials in cellular and molecular neuroscience to pursue a graduate program and/or a career in neuroscience or related field, and 2) independent learning and communication skills applicable broadly. The course is divided into three segments: 1) neuronal integration, 2) synaptic plasticity, and 3) neuromodulation.
NOTE BMCO students should contact the Department regarding prerequisites.
LEARNING HOURS 119 (12L;24S;8G;6I;69P)
PREREQUISITE Level 4 and registration in the LISC Major or Specialization Plan and a GPA of 2.5 and a minimum grade of B in NSCI 323/3.0.

NSCI 429/3.0 Disorders of the Nervous System
A multi-disciplinary course exploring advanced concepts of clinical neuroscience. Topics include stroke, traumatic brain and cord injuries, neurodegenerative disorders, epilepsy, schizophrenia, depression, deep brain stimulation, pain and placebo effects, normal and abnormal aging, stem cells. Students will learn to critically evaluate scientific literature and present these concepts to classmates during student-led seminars. Restricted to fourth-year students. Enrolment is limited.
PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and (NSCI 323/3.0 or NSCI 324/3.0 or ANAT 312/3.0 or PSYC 271/3.0).

NSCI 433/3.0 Cellular Elements of the Nervous System: Responses to Injury and Disease

Cellular dysfunction is a critical feature of neural injury and disease among humans. This course will examine the cellular elements of the mammalian central and peripheral nervous system, with an emphasis placed on understanding normal and abnormal cellular function in both humans and animal models.

NOTE Restricted to students registered in the 4th year.

LEARNING HOURS 114 (36L;36Lb;42P)

PREREQUISITE Registration in a LISC Major or Specialization Plan and a GPA of 2.5 and (NSCI 323/3.0 or NSCI 324/3.0) and (ANAT 309/3.0 or ANAT 312/3.0).

NSCI 444/3.0 Controversies in Neuroscience

As insight regarding the human brain expands, so do related issues such as what constitutes personhood, what drives the criminal mind, intelligence-enhancing drugs and end-of-life issues. Lead by experts who deal daily with such concerns, we will focus weekly on a particular topic in neuroscience which impacts on society.

LEARNING HOURS 108 (12L;24S;72P)

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and (ANAT 312/3.0 or NSCI 323/3.0 or NSCI 324/3.0 or PSYC 271/3.0).

NSCI 483/3.0 Neurobiology of Learning and Memory

A comprehensive exploration of the brain systems that support how we learn and remember, and how these systems can become disordered during development or disease. Topics will be introduced through multimedia and online learning modules, then students will dive deep into cutting edge primary research articles.

NOTE Only offered online. Consult the Bachelor of Health Sciences program office.

LEARNING HOURS 120 (72O;48P)

PREREQUISITE Level 4 and one of [(PHGY 215/3.0 and PHGY 216/3.0) or PSYC 271/3.0 or *PHGY 214/6.0* or *PHGY 210/6.0*].For LISC and BCHM Honours students Level 4and registration in a LISC or BCHM Major or Specialization Plan and a GPA of 2.5

NSCI 491/3.0 Directed Special Laboratory

Laboratory course in a selected area of Neuroscience to be arranged in consultation with individual members of the Centre for Neuroscience Studies. Course involves experimental design, data collection and analysis (approximately 6 hours of laboratory work per week required) as well as a brief communication of the laboratory work.

NOTE Students are limited to one NSCI 491/3.0 research project in Year 4.

NOTE Students whose research project requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

PREREQUISITE Availability of a supervisor and permission of the course coordinator; level 4 in the LISC Specialization Plan, NSCI Sub-Plan.

NSCI 499/12.0 Research Project in Neuroscience

An investigation into a selected area of neuroscience. The research project involves experimental design, data collection, and analysis, written report and oral presentation. Students will be required to attend seminars and tutorials on topics related to research. Limited enrolment.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in a LISC Specialization Plan and a GPA of 2.50.

EXCLUSIONS ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; *LISC 499/12.*0; MICR 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

PACT 335/3.0 Practicum in Physical Activity for Seniors

This activity-based course will afford students the opportunity to work with community physical activity programs for the elderly and relate class theory from KNPE 335/3.0 Physical Activity for Seniors to practical implementation. Students will work in a variety of programs including aqua fitness, tai chi, cardiac health maintenance, seniors fitness classes, and so on.

NOTE Transportation and other costs (e.g. required Criminal Checks) are the responsibility of the student.

LEARNING HOURS 114 (18S;36Oc;60P)

PREREQUISITE *PACT 237/3.0*.

COREQUISITE KNPE 335/3.0.

PACT 403/3.0 Intensive Coaching

A coaching internship designed to provide an opportunity to apply theoretical and technical knowledge in a coaching environment. Coaching opportunities vary year to year, subject to availability of an appropriate placement. This course is designed as an independent project. Students must arrange for a coaching supervisor approved by SKHS.

LEARNING HOURS 120 (12I;48Oc;60P)

PREREQUISITE PACT 100/3.0 and KNPE 203/3.0 and permission of the supervisor and Undergraduate Coordinator in the School of Kinesiology and Health Studies.

PATH 310/3.0 Introduction to Pathology and Molecular Medicine
An introduction to pathology and molecular medicine. The course will be organized around a specific set of diseases, designed to illustrate basic concepts in the molecular biology, biochemistry, and pathology of human disease.
NOTES Also offered online. Consult the Bachelor of Health Sciences program office.
PREREQUISITE Minimum third year (Level 3) standing and one of (BCHM 218/3; BCHM 270/3.0).

PATH 411 /3.0 Applied Data Science in Molecular Medicine
This course introduces data science tools and methods to handle, process and extract knowledge and insights from large molecular medicine datasets. The focus will be on applying statistics, machine learning and related methods for the analysis of various research datasets and digital pathology
LEARNING HOURS 120(18L;12pC;48G;6O;36P)
PREREQUISITE BIOL 243/3.or ECON 250/3.0 or GPHY 247/3.0 or KNPE 251/3.0 or NURS 323/3.0 or POLS 385/3.0 or PSYC 202/3.0 or SOCY 211/3.0 or STAT 263/3.0 or STAM 200/3.0

PATH 425/3.0 Current Topics in Human Genetics
An advanced level course introducing current topics in human genetics. The course will focus on the significance and implications of genetic variation and its role in disease, development and normal human diversity. In particular, the course will explore the future directions and implications of human genetic research in the post genomic era. Participation in seminars and group discussions is required. Enrolment is limited. Offered in Winter Term.
RECOMMENDATION BCHM 218/3.0 or permission of the course coordinator.
PREREQUISITE Level 4 and registration in a LISC major or Specialization Plan and a GPA of 2.5 and [PATH 310/3.0 or (a grade of B in BIOL 205/3.0)].
EXCLUSIONS BIOL 441/3.0

PATH 430/3.0 Molecular Basis of Disease
An in-depth perspective of the pathogenesis of human disease. An integration of the genetic, biochemical, physiologic, anatomic, and general etiologic factors which play a role in the progression of several specific diseases from inception to death or recovery. The course will comprise short introductory presentations by teaching faculty followed by the presentation and discussion of relevant scientific papers by students. Given jointly with PATH 826/3.0.
PREREQUISITE PATH 310/3.0 or and Level 4 and (registration in a LISC Major or Specialization Plan) and (a GPA of 2.5).

PATH 499/12.0 Research Project in Pathology
A research project involving the study of human disease processes. The project will be supervised by a Faculty member in the Department and will provide opportunities for experimental design, data analysis and both written and oral presentation of results. Students must contact a potential faculty supervisor in the Spring preceding registration in fourth year.
NOTE Acceptance by a supervisor required prior to registration.
NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.
LEARNING HOURS 480 (288Lb;24G;24I;144P)
PREREQUISITE Level 4 and registration in a LISC Specialization Plan and a GPA of 2.50.
EXCLUSION ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PHAR 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

PHAR 100/3.0 Introductory Pharmacology
Topics covered include central nervous system stimulants and depressants, narcotics, alcohol, cardiovascular agents, contraceptives, environmental toxicants, mechanism of drug action and disposition, antibiotics, drugs used in sports, over-the-counter drugs, food additives, and vitamins.
NOTE Also offered online. Consult the Bachelor of Health Sciences program office.
RECOMMENDATION 4U Biology.
ONE-WAY EXCLUSION May not be taken with or after: PHAR 230/3.0; *PHAR 270/3.0*; PHAR 340/3.0; PHAR 370/3.0; PHAR 450/3.0.

PHAR 230/3.0 Pharmacology for the Health Sciences
Lecture series on the following topics: principles of drug action, autonomic pharmacology, cardiovascular-renal pharmacology, neuropsychopharmacology, chemotherapy, drugs acting on the endocrine system, over-the-counter drugs, and therapeutic applications.
LEARNING HOURS 122 (36L;8G;78P)
COREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or KNPE 225/3.0 or *PHGY 210/6.0* or *PHGY 214/6.0*.
EXCLUSIONs *PHAR 270/3.0*; PHAR 340/3.0; PHAR 370/3.0

PHAR 340/3.0 Principles of General Pharmacology I
Topics include: fundamental principles of drug action, autonomic nervous system pharmacology, and toxicology.
LEARNING HOURS 120 (27L;24T;69P)
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or BIOL 339/3.0 or *PHGY 210/6.0* or *PHGY 214/6.0*.
EXCLUSIONS PHAR 230/3.0; PHAR 370/3.0; *PHAR 270/3.0*

PHAR 370/3.0 Fundamentals of Pharmacology
An interdisciplinary course that introduces the basic principles and clinical applications of pharmacology. This 12-week course covers six topics. Students will work through the topics online, using a combination of online modules, readings, and short video clips. Students will participate in a variety of assessments throughout the course.
LEARNING HOURS 120(48O;72P)
COREQUISITE One of (PHGY 215/3.0; PHGY 216/3.0; KNPE 225/3.0)
EXCLUSIONS PHAR 230/3.0; PHAR 340/3.0
May not be taken with or after PHAR 450/3.0
EQUIVALENCY *PHAR 270/3.0*

PHAR 380/3.0 Drug and Environmental Toxicology
This course will explore the human toxicology associated with both pharmaceutical and environmental exposures. Topics include metabolism and mechanisms of toxicity of various pharmaceuticals and environmental pollutants. Toxicological effects of specific classes of environmental toxicants and different groups of pharmaceuticals are also discussed.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Level 3 or above and (BCHM 270/3.0 or BCHM 315/3.0 or BCHM 316/3.0 or BCHM 218/3.0 or BIOL 334/3.0).

PHAR 416/3.0 Xenobiotic Disposition and Toxicity
An advanced study of chemical disposition and toxicity. Topics include toxicokinetics, biotransformation, metabolite-mediated toxicity, free radicals, the mechanism of action of toxicants, effects of toxicants on organ systems and a detailed examination of selected toxic agents.
NOTE BCHM, BIOL, BMCO, ELSC and ETOX students should contact the Department for permission to enroll in this course.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and a GPA of 2.5 and (BCHM 310/9.0 or BCHM 316/3.0 or BIOL 334/3.0 or PHAR 340/3.0).

PHAR 450/3.0 Principles of General Pharmacology II
Topics include: neuropsychopharmacology, cardiovascular pharmacology, agents acting on the endocrine system, and chemotherapy.
NOTE This course involves team based learning sessions and a drug literature evaluation assignment.
PREREQUISITE (PHAR 230/3.0 or PHAR 370/3.0 or *PHAR 270/3.0* with a minimum grade of B) or PHAR 340/3.0.

PHAR 480/3.0 Drug Discovery and Development

This survey course covers the life-cycle of a pharmaceutical product including drug discovery, development, and its transition to a generic or over-the-counter medication.

NOTE Only offered online. Consult Arts and Science Online.

NOTE This course cannot be used as credit towards the Life Sciences Specialization Plan DDHT.

LEARNING HOURS 120 (60O;60P)

PREREQUISITE Level 4 and (PHAR 230/3.0 or PHAR 270/3.0 or PHAR 340/3.0) and (PHAR 380/3.0 or PHAR 416/3.0).For Life Science Honours students Level 4 and registration in a LISC Major or SSP Plan and a GPA of 2.5 and (PHAR 230/3.0 or *PHAR 270/3.0* OR PHAR 340/3.0 or PHAR 370/3.0) and (PAHR 380/3.0 or PHAR 416/3.0).

EXCLUSIONS DDHT 459/3.0; DDHT 460/3.0

PHAR 499/12.0 Research Project in Pharmacology and Toxicology

An examination of the development and present state of knowledge in selected research areas of pharmacology and toxicology. Research project involves experimental design, data collection and analysis, written report and oral presentation. Students will be required to attend seminars and tutorials on topics related to research.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in a LISC or ELSC Specialization Plan and a GPA of 2.50.

EXCLUSIONS ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHGY 499/12.0; REPD 499/12; *MICR 455/6.0*.

PHGY 170/3.0 Human Cell Physiology
This is an introductory level course on the structure and function of human cells for students interested in pursuing human health-related disciplines. Students will also learn the principles of energy metabolism, cell growth and proliferation, and how cells interact with their environment. There is also an overall focus to relate cellular processes to human function and disease, culminating in a group presentation focused on one specific cell process and how it affects health. Students taking this course will be well-prepared for upper year molecular biology courses.
NOTE Only offered online. Consult the Bachelor of Health Sciences program office.
LEARNING HOURS 114 (36O;78P)
ONE-WAY EXCLUSION May not be taken with or after KNPE 225/3.0.

PHGY 215/3.0 Principles of Mammalian Physiology I
The focus of this course is on the central and peripheral nervous systems, muscle physiology, the heart, and the vascular system.
NOTE This course may be paired with PHGY 216/3.0 to achieve an introductory physiology full course (6.0 units).
NOTE Although it is recommended to take PHGY 215/3.0 first, this course can be taken before, after, or concurrently with PHGY 216/3.0.
NOTE Also offered online. Consult the Bachelor of Health Sciences program office. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above.
EXCLUSIONS (KNPE 125/3.0 and KNPE 225/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

PHGY 216/3.0 Principles of Mammalian Physiology II
The focus of this course is the physiology of the respiratory, renal, gastrointestinal, endocrine, and reproductive system.
NOTE This course may be paired with PHGY 215/3.0 to achieve an introductory physiology full course (6.0 units).
NOTE Although it is recommended to take PHGY 215/3.0 first, PHGY 216/3.0 can also be taken before or concurrently with PHGY 215/3.0.
NOTE Also offered online. Consult the Bachelor of Health Sciences program office. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION PHGY 215/3.0.
PREREQUISITE Level 2 or above.
EXCLUSIONS (KNPE 125/3.0 and KNPE 225/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

PHGY 290/3.0 Investigation of Human Psychological Responses
This course is designed to advance critical thinking and practical lab skills through collaborative experimentation on human physiological responses to various stimuli. Upon completion, students should be able to (i) plan and perform experimental protocols, (ii) collect, analyze and interpret data and (iii) produce quality presentations of findings.
Note: We recommend that students should have already completed a statistics course (e.g. STAM 200 or equivalent).
LEARNING HOURS 120(36Lb;48O;36P)
COREQUISITES Minimum 2nd year (Level 2) standing, registration in a Health Sciences, Life Sciences, or Biochemistry degree plan and PHGY 215 and 216 (or equivalents).

PHGY 350/3.0 Pathophysiology
An introductory course in Pathophysiology in which the underlying functional changes of cell and cell systems will be discussed in association with a variety of disease processes.
LEARNING HOURS 114 (36L;6O;72P)
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or (KNPE 125/3.0 and KNPE 225/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

PHGY 355/3.0 Biomedical Respiratory Physiology
An intermediate course focusing on biomedical applications of lung biology. Topics include lung mechanics, gas exchange, acid-base balance and control of breathing.
PREREQUISITE (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*.

PHGY 424/3.0 Ion Channels of Excitable Cells
The electrophysiology and biophysics of neuronal and cardiac membranes; molecular biology, structure, and function of ion channels. Students will learn to critically evaluate scientific literature. Instructional format is primarily student-led seminars.
PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [a minimum grade of C in (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*].

PHGY 444/3.0 Gastrointestinal Physiology

Cellular and molecular approaches to human intestinal function and described and synthesized into an understanding of intestinal physiology at the organ level. Taught by GI researchers and clinical-scientists; students prepare and present critical appraisals of current primary research papers.

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [a minimum grade of C in (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*].

PHGY 494/3.0 Neuroendocrinology

Students are exposed to an in depth study of selected topics in neuroendocrinology and neuroendocrine techniques. Neuroendocrinology refers to the neural control of endocrine and autonomic function. Areas of focus will include central nervous system control of cardiovascular function, reproduction, and appetite. In addition, students will learn to critically evaluate scientific literature. Instructional format is primarily student led seminars.

LEARNING HOURS 114 (36S;12O;96P)

PREREQUISITE Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5 and [a minimum grade of B in (PHGY 215/3.0 and PHGY 216/3.0) or *PHGY 210/6.0* or *PHGY 212/6.0* or *PHGY 214/6.0*].

PHGY 499/12.0 Research Project in Physiology

An investigation in a selected area of physiology. The project involves experimental design, data collection and analysis, submission of written reports, and oral presentations. Students attend seminars/tutorials on related topics.

NOTE Acceptance by a supervisor required prior to registration.

NOTE Students whose research requires the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

LEARNING HOURS 480 (288Lb;24G;24I;144P)

PREREQUISITE Level 4 and registration in a LISC Specialization Plan and a GPA of 2.50.

EXCLUSIONS ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; *LISC 499/12.0*; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; REPD 499/12; *MICR 455/6.0*.

PHIL 111/6.0 What is Philosophy?
An introduction to philosophy through the examination of a number of classic philosophical works, with an evaluation of the positions and arguments offered in each.
NOTE Students considering a Major or Medial Plan in PHIL are strongly urged to take PHIL 111/6.0 or PHIL 115/6.0 in their first year.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (72L;168P)
EXCLUSIONS PHIL 151/3.0

PHIL 115/6.0 Fundamental Questions
Representative basic philosophical issues will be explored, such as: good and bad arguments, the source of moral obligation, the justification of knowledge claims, free will and determinism, the social enforcement of gender roles, taking responsibility for the environment, and the meaning of life.
NOTE Students considering a Major or Medial Plan in PHIL are strongly urged to take PHIL 111/6.0 or PHIL 115/6.0 in their first year.
LEARNING HOURS 240 (48L;24T;168P)

PHIL 151/3.0 Great Works of Philosophy
An examination of some major milestones in the development of philosophical thought. The course will involve both the exposition of texts and discussion of the philosophical issues which they raise.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (24L;12T;84P)
EXCLUSION(S) PHIL 111/6.0

PHIL 153/3.0 The State and the Citizen
An introduction to political philosophy which explores the relationship between state and citizen. Issues include: civil disobedience, nationalism, the welfare state, anarchism and the capitalist state.
LEARNING HOURS 120 (24L;12G;84P)

PHIL 157/3.0 Moral Issues
An introduction to ethics via an examination of controversial moral issues. Special topics: abortion; animal rights; euthanasia.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (24L;12G;84P)

PHIL 201/3.0 Philosophy and Medicine
The relationship between philosophical traditions and medical theory will be explored, as will the impact on philosophy of medical discoveries (such as anaesthesia and antibiotics) and diseases (such as the Black Death and AIDS). Emphasis is on concepts of disease from antiquity to the present.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 203/3.0 Science and Society
Philosophical issues - both epistemological and ethical - involved in specific debates about the relationship between science and social issues. The course may focus, for instance, on recent 'popular' sociobiology efforts by biologists and others to establish scientific theories of human nature and human potential.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 204/3.0 Life, Death, and Meaning
An examination of whether life has 'meaning', and a consideration of different philosophical interpretations of the meaning of life, the significance of death for the meaning of life, and whether it even makes sense to speak of life as having meaning.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 233/3.0 Greek Philosophy
This course will survey central works of Ancient Greek Philosophy from Thales and the other Pre-Socratics through the seminal works of Plato and Aristotle, and may include examples of later works by Post-Hellenic Philosophers including Plotinus, the Stoics, and the Skeptics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 240/3.0 Philosophy of Education
An examination of key issues and texts in the philosophy of education. Possible topics include the nature and aims of the learning process, progressive and conservative education, the politics of education, and contemporary debates regarding the canon.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 247/3.0 Practical Ethics
This course will subject a range of issues in practical ethics to philosophical scrutiny. Topics may include obligations to future generations, the ethics of war and self-defence, whether torture is ever permissible, the ethics of deception, the morality of genetic enhancement, the nature of exploitation, and moral objections to organ sales.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 250/6.0 Epistemology and Metaphysics
An examination of the development of central debates in epistemology and metaphysics from the early modern period to the present. Focusing on the work of thinkers like Descartes, Kant, Wittgenstein and Quine, such questions as the nature and justification of knowledge, mind and body, personhood and community, truth and meaning will be discussed.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE (A GPA of 2.0 in 6.0 units in PHIL) or (a grade of B- in 3.0 units in PHIL and registration in a COGS Plan).

PHIL 256/3.0 Existentialism
Representative figures from Kierkegaard to de Beauvoir will be the focus of attention in this overview of the main ideas of existentialism, a vital movement in contemporary philosophy. The foundations of existential thought, its distinctive style of argumentation and its relationship to the perennial concerns of philosophy will be explored.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 257/6.0 Ethics
A study of problems in moral and/or political philosophy from the ancient or early modern period to the present.
LEARNING HOURS 240 (76L;168P)
PREREQUISITE A GPA of 2.0 in 6.0 units in PHIL.

PHIL 259/3.0 Critical Thinking
A discussion of the general principles of reasonable discourse, with a focus on persuasive and cogent writing.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)

PHIL 260/3.0 Introduction to Logic
When we uncover the formal structure of our thoughts and utterances, we gain a deeper understanding of what we think and say. When we study the formal structures themselves, we learn something of the processes underlying cognitive activity in general.
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.
EXCLUSION *PHIL 361/3.0*.
EQUIVALENCY *PHIL 361/3.0*.

PHIL 261/3.0 Philosophy of Mathematics
A discussion of some ontological and epistemological problems associated with mathematics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 263/3.0 Philosophy of Religion
A consideration of traditional and/or contemporary religious conceptions and arguments. Possible topics include: the nature and existence of God, and bases of religious claims.
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 270/3.0 Minds and Machines
A survey of the contribution of philosophy to the cognitive sciences. The focus will be on providing a synthesis of the different perspectives brought by each of the disciplines, in particular, cognitive psychology, computer science, neurophysics, and linguistics, through an investigation of how the various approaches ultimately frame and answer our questions about the mind.
NOTE Each week, students will be assigned a number of articles or chapters for reading and will be expected to be able to discuss the readings in class.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 271/3.0 Philosophy and Literature
A broad introduction to philosophical method and the nature of philosophical issues through a consideration of philosophic assumptions and theses present in important literary works.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 273/3.0 Continental Philosophy, 1800-1900
This lecture course provides an analysis of key figures and texts in nineteenth-century continental European philosophy. Possible figures include Georg Wilhelm Friedrich Hegel, Soren Kierkegaard, Friedrich Nietzsche, and Wilhelm Dilthey. Possible topics include post-Kantian idealism, existentialism, and hermeneutics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 275/3.0 Thinking Gender, Sex, and Love
What is at stake in how we think about gender, sex, and love? How do these concepts inform each other? What else defines them? Using classic and contemporary philosophical texts we examine presuppositions and alternative possibilities. Old and new insights are explored. Emphasis is on careful reading and critical thinking skills.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 276/3.0 Critical Perspectives on Social Diversity
An introduction to philosophical issues regarding sexism, racism, ageism, homophobia, classism, imperialism and other forms of oppression.
NOTE The course is intended to prepare students for upper level courses in feminist philosophy and the philosophy of culture.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 293/3.0 Humans and the Natural World
An introduction to environmental philosophy through a study of readings that have exercised a formative influence on Western thinking about the relationship between humans and the rest of nature, and hence also about human nature itself. The course will offer an environmental perspective on the history of philosophy from ancient to recent times.
NOTE Bus fare and entrance fee: estimate cost $30.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 296/3.0 Animals and Society
This course introduces students to historical and contemporary debates regarding the treatment of nonhuman animals within Western societies, and explores our ethical responsibilities toward them. The course examines a range of human-animal relations, involving domesticated, working, research subjects and wild animals.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or completed 6.0 units in PHIL.

PHIL 301/3.0 Bioethics
An investigation of some moral issues arising in connection with health care, including: the relationship between patient and health care provider; reproductive decision-making; euthanasia and the nature of death; and the development of health care policy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 303/3.0 Ethics and Business
An examination of the moral principles involved in the evaluation of business institutions, practices and decisions. Sample topics include: liberty, efficiency and the free market ideal; the market and justice in distribution.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.
EXCLUSION(S) COMM 338/3.0.

PHIL 307/3.0 Latin American and Caribbean Philosophy
Specific topics in or traditions within Latin American and Caribbean Philosophy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 and 12.0 units in PHIL, ENGL, HIST, or POLS.

PHIL 310/3.0 Development Ethics
This course examines philosophical issues in the field of Global Development, such as what is meant by 'development', 'freedom' and 'quality of life'.
PREREQUISITE Level 3 and 12.0 units in PHIL, ENGL, HIST, or POLS.

PHIL 311/3.0 Philosophy of Psychology
A philosophical understanding of the background to psychology. Topics may include the nature of mental representation, the place of 'folk psychology,' individualism in psychology, the nature of mental causation and explanation.
PREREQUISITE PHIL 250/6.0 or 12.0 units in PSYC or permission of the Department.

PHIL 316/3.0 Philosophy of Art
A study of what is involved in enjoying, understanding and interpreting works of art, and of the place of the arts in human culture. Writings of artists and critics, as well as those of philosophers, will be used.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 318/3.0 Philosophy of Law
A survey of the central issues in the philosophy of law including a consideration of current jurisprudential controversies about the nature of law and philosophical treatments of problems arising from within the law such as paternalism, privacy, responsibility, and civil liberties.
PREREQUISITE Level 3 or above.

PHIL 324/3.0 African Philosophy
This course offers an introduction to African philosophical thought. After dealing with metatheoretical questions about the nature of philosophy and the philosophical inquirer, the focus will shift to African views on topics such as truth, the concept of a person, art, morality, slavery and colonialism.
PREREQUISITE Level 3 or above.

PHIL 328/3.0 Ancient Philosophy
A study of selected topics in ancient philosophy.
PREREQUISITE (PHIL 250/6.0 or PHIL 257/6.0) or (6.0 units in PHIL and registration in a CLST Major or Medial Plan) or permission of the Department.

PHIL 329/3.0 Early Modern Philosophy
A study of selected topics in early modern philosophy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHIL 250/6.0 or PHIL 257/6.0 or permission of the Department.

PHIL 330/3.0 Investigations in the History of Philosophy
An examination of perennial topics and/or important authors and schools of thought within the History of Philosophy. While the course will target material that has proven important to contemporary thinking, the emphasis will be on understanding the topics/authors/movements within their historical milieu.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHIL 250/6.0 or PHIL 257/6.0 or permission of the Department.

PHIL 335/3.0 Introduction to Kant
An examination of the *Critique of Pure Reason*.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHIL 250/6.0 or permission of the Department.

PHIL 343/3.0 Social and Political Philosophy
An examination of some of the principles and theories to which appeal is commonly made when social institutions and practices (and the policies associated with their establishment and maintenance) are subjected to critical scrutiny.
PREREQUISITE PHIL 257/6.0 or POLS 250/6.0 and 6.0 units in PHIL.

PHIL 347/3.0 Contemporary Moral Philosophy
A critical survey of some recent trends in moral philosophy. Study will begin with the emotive theory of ethics, and end with very recent works of importance in the field.
PREREQUISITE PHIL 257/6.0 or permission of the Department.

PHIL 348/3.0 Freedom of the Will
An examination of the concept of freedom of the will, with emphasis on the problems generated by causation and the notion of responsibility.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHIL 250/6.0 or PHIL 257/6.0 or permission of the Department.

PHIL 351/3.0 Philosophy of Mind
A discussion of concepts and issues in the philosophy of mind. Sample topics include identity, action, emotion, intention, belief and desire.
PREREQUISITE PHIL 250/6.0 or permission of the Department.

PHIL 352/3.0 Metaphysics
The nature and varieties of metaphysics, including rationalistic 'Platonist' and empirical/descriptive 'Aristotelian' approaches. Positivistic and pragmatic anti-metaphysical 'critiques' and verificationism. Contemporary analytical metaphysics after Quine and Strawson.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHIL 250/6.0 or permission of the Department.

PHIL 359/3.0 Philosophy of Language
Central issues include: the distinction between language and speech; the syntax/semantics/pragmatics trio; reference, denoting, names and descriptions; meaning, truth and verifiability; realism and anti-realism; linguistic forms of pragmatism, behaviourism, idealism, etc.
PREREQUISITE PHIL 250/6.0 or permission of the Department.

PHIL 362/3.0 Further Studies in Logic
From first-order monadic predicate calculus to polyadic predicate calculus with identity. Symbolization, rules of inference, derivation and refutation of arguments. Introduction to modal logics.
PREREQUISITE (PHIL 260/3.0 or *PHIL 361/3.0*) or ELEC 270/3.0.

PHIL 367/3.0 Jewish Philosophy
An examination of key Jewish thought from Philo to Fackenheim, exploring such themes as the relationship between philosophy, literature, law, and religion; developments within Jewish philosophy; non-Jewish influences on Jewish thought and vice-versa. Contributions to contemporary philosophical work such as those in bioethics and postmodernism may also be considered.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (6.0 units in PHIL or JWST) or permission of the Department.

PHIL 373/3.0 Continental Philosophy, 1900-1960
This lecture course provides an analysis of key figures and texts in continental European philosophy between 1900 and 1960. Possible figures include Edmund Husserl, Martin Heidegger, Karl Jaspers, Gabriel Marcel, Hannah Arendt, and Hans-Georg Gadamer. Possible topics include phenomenology, existentialism, and hermeneutics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 374/3.0 Continental Philosophy 1960-present
This lecture course provides an analysis of key figures and texts in continental European philosophy from 1960 to the present. Possible figures include Michel Foucault, Jacques Derrida, Jurgen Habermas, Emmanuel Levinas, Jean-Francois Lyotard, and Julia Kristeva. Possible topics include hermeneutics, postmodernism, critical theory and feminism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 376/3.0 Philosophy and Feminism
An introduction to topics and issues in feminist philosophy. The influence of feminist perspectives on the framing and study of philosophical problems, and the contribution of philosophy to the development of feminist theory and practice will be central concerns. This course can be counted towards a minor, major or medial concentration in Gender Studies.
PREREQUISITE (6.0 units in PHIL or GNDS at the 200-level or above) and (6.0 units in PHIL or GNDS) or permission of the Department.

PHIL 381/3.0 Philosophy of the Natural Sciences
Topics may include the nature of scientific method; the meaning of laws of nature; theoretical entities; scientific explanation; causality, induction, and probability.
PREREQUISITE Level 3 or above.

PHIL 382/3.0 Space-Time, Matter, and Reality
Contemporary physics has revolutionized our understanding of space, time, and matter. This has raised many fascinating philosophical issues, such as: Is time real? Is time travel possible? Is reality determinate, or does it depend on human observation? We will examine these and other questions in the context of physical theory.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 383/3.0 Philosophy of Computing
What is computation? What has computer science taught us about ourselves and the world? Topics to be addressed include: the relationship between computability, logic, and mathematics; computation and cognition; the simulation hypothesis; infinity and paradox; natural computation; the nature of information; artificial intelligence; and more.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above.

PHIL 384/3.0 Consciousness
A theoretical and applied inquiry into the nature of consciousness from a variety of perspectives, including any or all of Buddhism, Stoicism, phenomenology, and embodied cognitive science. Alongside readings, discussion, and writing, students will develop a regular meditation practice guided by instruction and practice.
LEARNING HOURS 144 (24L;12Lb;84P)
PREREQUISITE Level 3 or above.

PHIL 390/6.0 Philosophical Practice
This is a skills course. The first term provides intensive training in reading, discussing and writing philosophy. The syllabus will focus on one (or more) of the department's core areas: metaphysics, epistemology, ethics, political philosophy, and/or history. The second term is a practicum: students will serve as writing tutors for PHIL 111 or 115.
NOTE Students are admitted by application. Please see Departmental website for details.
LEARNING HOURS 228 (36S;42Pc;144P)
PREREQUISITE Registration in a Philosophy Major Plan and (A GPA of 2.4 in each of PHIL 250/6.0 and PHIL 257/6.0) and Permission of the Department.

PHIL 402/3.0 Current Issues in Moral Philosophy
An examination of major issues in contemporary moral philosophy. Topics to be studied may include contractualism, objectivity, practical reason, relativism and value realism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 405/3.0 Current Issues in Social and Political Philosophy
An examination of major issues in contemporary social and political philosophy. Possible topics to be studied include communitarianism, liberalism, multi-culturalism, the nation-state, and utopias.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 406/3.0 Walls to Bridges Socio-legal Issues
This is an experimental **learning** course based on the Wall to Bridges model, which brings together students from Queen's University ('outside students') with students from a local federal prison ('inside students') to learn and share knowledge based on their lived experience and critical analysis of academic scholarship. Topics may vary.
NOTE This course takes place off campus at a local federal prison, as part of the Walls to Bridges prison education program- http://wallsto bridges.ca/
PREREQUISITE <u>The prerequisites for Philosophy students are:</u> Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-levelPHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300-level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)]. Interested students (both inside and outside) will need to submit an expression of interest followed by an interview with the course instructor. Students register for the course with instructor permission.
EXCLUSIONS SOCY 406/3.0

PHIL 407/3.0 W2B Philosophical Issues
This is an experimental learning course based on the Wall to Bridges model, which brings together students from Queen's University ('outside students') with students from a local federal prison ('inside students') to learn and share knowledge based on their lived experience and critical analysis of academic scholarship. Topics may vary.
NOTE This course takes place off campus at a local federal prison, as part of the Walls to Bridges prison education program- http://wallsto bridges.ca/
PREREQUISITE <u>The prerequisites for Philosophy students are:</u> Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-levelPHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300-level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)]. Interested students (both inside and outside) will need to submit an expression of interest followed by an interview with the course instructor. Students register for the course with instructor permission.
EXCLUSIONS SOCY 407/3.0

PHIL 408/3.0 Topics in the Philosophy of Law Seminar
An examination of major issues in the philosophy of law. Possible topics to be studied include definitional questions, interpretivism, positivism, punishment and the relationship between law and morality.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 410/3.0 Topics in the History of Philosophy
This course examines issues and theorists in the History of Philosophy. Possible topics include the nature of substance, explanation, causality, rights and obligations, primary and secondary qualities. Possible theorists include, Descartes, Spinoza, Hegel, Frege.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 412/3.0 Topics in Philosophy of Culture
An examination of major issues in the philosophy of culture. Possible topics to be studied include: the history of the philosophy of culture; the relationship between culture and identity or the self; the relationship between culture and progress; and various forms of cultural relativism.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 420/3.0 Ethical Issues
An examination of major issues in ethics. Possible topics to be considered include political violence, coercion, punishment, immigration, suicide, drug policy, leisure and *akrasia*.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 431/3.0 Ancient Philosophy
An examination of major issues in ancient philosophy. Possible topics to be considered include the appearance/reality distinction, causation, the emotions, happiness (eudaimonia) and substance.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 441/3.0 20th Century Philosophy
An examination of major issues in 20th century philosophy. Possible topics to be studied include debates about modality, the development of logic, the natural language movement, pragmatism and verificationism.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 442/3.0 Creativity
This seminar will be concerned with questions such as: What is creativity? Is there a structure to creative process? In what sense does creativity involve freedom? Could a computer program be creative? What role does creativity play in living well, or in moral thought or action? Is there any truth to the popular idea that mental illness is linked?
LEARNING HOURS 120 (36L; 84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 444/3.0 Philosophy in the Community
A unique experiential course for 3rd and 4th year Philosophy concentrators involving a volunteer internship in such fields as rehabilitation healthcare, local government, prisoners' advocacy, LGBTQ cultural activities, immigrant support, animal rescue, or speech therapy. The course also involves class meetings, regular reports, and a final essay.
NOTES Students are admitted by application: Admission is at the discretion of the instructor. Interested students will need to complete an application form, obtain a reference, and if shortlisted, come for interview.
LEARNING HOURS 120(9S;27Pc;84P)
PREREQUISITE Level 3 or above, Registration in a Philosophy Plan and permission of instructor.

PHIL 445/3.0 Major Figures
An examination of the key ideas from a major figure in the history of philosophy. Philosophers studies will vary from offering to offering, including Aristotle, Aquinas, Kant, Mill and Rawls.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300-level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 451/3.0 Current Issues in Epistemology
An examination of major issues in contemporary epistemology. Possible topics include justification, internalism and externalism, foundationalism and coherentism, and social epistemology.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 452/3.0 Current Issues in Metaphysics
An examination of major issues in contemporary metaphysics. Possible topics include causation, properties, time, modal theory, and induction.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 454/3.0 Topics in Feminist Philosophy
This course examines issues in Feminist Philosophy. Possible topics may include gender and sex; feminist ethics, epistemologies and metaphysics; disputes about essentialism; the intersections of gender, sexuality, racialization, imperialism, and class.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level) or (registration in a GNDS Major Plan)].

PHIL 459/3.0 Current Issues in the Philosophy of Language
An examination of major issues in contemporary philosophy of language. Possible topics to be studied include: the nature of meaning; the relationship between language and the mind, as well as language and the world; and the syntax, semantics and pragmatics of natural language.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level) or (registration in a LING Major Plan)].

PHIL 464/3.0 Topics in Philosophy of Mind
An examination of major issues in contemporary philosophy of mind. Possible topics to be considered include: consciousness; definitional questions (what is the mind?); mental causation; mental events; mental properties; and various theories about the nature of the mind.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 466/3.0 Topics in the Philosophy of Art
An examination of major issues in the philosophy of art. Possible topics include: the definition of art, art and the emotions, art and interpretation, art and the aesthetic, and the philosophy of particular artforms (i.e., literature, film).
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 467/3.0 Hermeneutics
An examination of major issues in hermeneutics or the theory of interpretation. Possible topics to be studied include the history of hermeneutics, objectivity and relativism, critiques of ideology, semiotics, and pragmatism.

PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 470/3.0 Topics in Philosophy in Science
An examination of major issues in the philosophy of science. Possible topics to be considered include explanation, realism versus instrumentalism scientific progress, the social dimensions of science and the unity of the sciences.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 471/3.0 Current Issues in Medical Epistemology
An examination of epistemic issues arising from or pertaining to medicine. Possible topics to be considered include the nature of disease, concepts of scientific discovery as found in medicine, and the relationship between medical research and clinical practice.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)].

PHIL 473/3.0 Philosophical Logic
An examination of major issues in the philosophy of logic. Possible topics to be considered include deviant logics, the nature of identity, modal logics and the paradoxes of material implication and strict conditionals.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level)] and (PHIL 260/3.0 or *PHIL 361/3.0*).

PHIL 493/3.0 Ethics and the Environment
This course examines issues in Ethics and the Environment. Possible topics include sustainable development, humans and nature, moral obligations to future generations.
NOTE Cost of bus fare: Estimated $15.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level) or registration in a ENVS Medial Plan or ENSC Major plan or ENSC, EGPY, EBIO, ECHM, EGEO, ELSC or ETOX Specialization Plan)].

PHIL 497/3.0 Ethics and Animals
This course examines issues in Ethics and Animals. Potential topics include animal rights, human consumption and other uses of non-human animals, the domestication of non-human animals.
PREREQUISITE Level 4 and (PHIL 250/6.0 and PHIL 257/6.0) and (a minimum GPA of 2.4 in all 300-level PHIL) and [(registration in a PHIL Major Plan and 9.0 units of PHIL at the 300 level) or (registration in a PHIL Medial Plan and 6.0 units of PHIL at the 300-level) or registration in a ENVS Medial Plan or ENSC Major plan or ENSC, EGPY, EBIO, ECHM, EGEO, ELSC or ETOX Specialization Plan)].

PHIL 500/6.0 Directed Special Studies
This course involves a directed study of a philosophical topic. Topics chosen may be from any area of philosophy, and should be determined in consultation with a proposed supervising instructor.
PREREQUISITE Level 4 and registration in a PHIL Major or Medial Plan and (a minimum GPA of 2.60 in PHIL 250/6.0 and PHIL 257/6.0) and permission of the Department.

PHIL 510/3.0 Directed Special Studies
This course involves a directed study of a philosophical topic. Topics chosen may be from any area of philosophy, and should be determined in consultation with a proposed supervising instructor.
PREREQUISITE Level 4 and registration in a PHIL Major or Medial Plan and (a minimum GPA of 2.60 in PHIL 250/6.0 and PHIL 257/6.0) and permission of the Department.

PHYS P10/3.0 Fundamental Concepts in Physics for Teachers
A course relevant to those interested in teaching. Activity based learning of fundamental physics topics typically taught in elementary and secondary schools. Topics include: motion, forces, energy, heat, electricity and magnetism, and light. Students will be required to teach a one hour enrichment class, once a week for 10 weeks, to Grade 7 or 8 students in a local school.
NOTE This course may not be included in any Plan in Physics other than a Minor.
LEARNING HOURS 113 (12L;24Lb;10Pc;5I;18O;20Oc;24P)

PHYS P22/3.0 Physics Frontiers: From Colliding Black Holes to Disruptive Technologies
A descriptive course exploring concepts in physics at the frontiers of active research. Bypassing jargon and mathematical complexities, students will focus on the big questions at the extremes of our understanding of the universe around us. Designed for non-scientists who want to learn how we try to understand our fantastic, physical natural world.
LEARNING HOURS 114 (24L;24Pc;36O;18Oc;12P)

PHYS 104/6.0 Fundamental Physics
Mechanics, including systems of particles and rigid body motion; gravitation; fluids; electricity and magnetism; oscillatory motion and waves; topics in modern physics. The material is presented at a more fundamental level appropriate for students who are seeking a deeper appreciation of physics, and who may be considering a concentration in Physics.
LEARNING HOURS 240 (72L;36Lb;36T;96P)
RECOMMENDATION 4U Physics is required.
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0).
EXCLUSIONS PHYS 106/6.0; PHYS 117/6.0; PHYS 118/6.0

PHYS 106/6.0 General Physics
Mechanics, including systems of particles and rigid body motion; fluids; electricity and magnetism; oscillatory motion and waves; heat, light and sound; topics in modern physics. Aspects of physics useful for further work in other sciences will be emphasized.
NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.
LEARNING HOURS 240 (72L;36Lb;36T;96P)
RECOMMENDATION 4U Physics is required.
COREQUISITE MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0).
EXCLUSIONS PHYS 104/6.0; PHYS 117/6.0; PHYS 118/6.0

PHYS 117/6.0 Introductory Physics
An algebra-based course dealing with basic physics concepts, including dynamics, fluids, waves, electromagnetism, and basic optics. Emphasis is based on the development of problem-solving skills through the use of Mastery based course delivery. PHYS 117/6.0 includes a required lab component.
NOTE Manual: estimated cost $15 per manual.
LEARNING HOURS 240 (72L;36Lb; 36T: 96P)
RECOMMENDATION 4U Physics is recommended.
EXCLUSIONS PHYS 104/6.0, PHYS 106/6.0; PHYS 118/6.0

PHYS 118/6.0 Basic Physics
An algebra-based course dealing with basic Physics concepts, including dynamics, fluids, waves, electromagnetism, and basic optics. Emphasis is placed on the development of problem-solving skills through the use of Mastery based course delivery.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 228 (132O;96P)
RECOMMENDATION 4U Physics is recommended.
EXCLUSIONS PHYS 104/6.0, PHYS 106/6.0; PHYS 117/6.0

PHYS 206/3.0 Dynamics
An introductory course in classical dynamics of particles, of rigid bodies and of fluids that sets the foundation for more advanced work. Topics include kinematics of particles and of rigid bodies, central forces, kinetics of systems of particles, planar and three dimensional dynamics of rigid bodies and an introduction to fluid mechanics.
RECOMMENDATION A minimum grade of C in PHYS 104/6.0 or PHYS 106/6.0.
PREREQUISITE (PHYS 104/6.0 or PHYS 106/6.0) and (MATH 120/6.0 or MATH 121/6.0).

PHYS 212/3.0 Vibrations and Waves
Fundamentals of free, damped and forced vibrations with applications to various mechanical systems. Coupled oscillations and normal modes. Classical wave equation, standing and travelling waves. Continuum mechanics of solid bodies; elasticity theory with applications. Introduction to optics: image formation and optical instruments.
LEARNING HOURS 120 (24L;24T;72P)
PREREQUISITE PHYS 206/3.0.

PHYS 213/3.0 Computational Methods in Physics
Computing environments, algorithms, techniques and programming for solving physics problems. Numerical methods. Code development. Possible topics to be covered include numerical differentiation and integration, root finding and optimization problems, solution of linear systems of equations, Monte Carlo simulation, and symbolic computation.
LEARNING HOURS 120 (24L;24T;72P)
EQUIVALENCY *PHYS 313/3.0*.
PREREQUISITE (PHYS 104/6.0 or PHYS 106/6.0) and (MATH 120/6.0 or MATH 121/6.0).
EXCLUSIONS CISC 271/3.0; MATH 272/3.0, *PHYS 313/3.0*

PHYS 216/3.0 Introduction to Astrophysics
Broad overview of basic laws of gravitation, radiation, and relativity: history and evolution of modern astronomy; ground and space based astronomy; the physics and evolution of stars; the milky way; galaxies in the universe; and cosmology. This course also uses the on campus observatory at an introductory level.
PREREQUISITE (PHYS 104/6.0 or PHYS 106/6.0) and (MATH 120/6.0 or MATH 121/6.0), or permission of the Department.

PHYS 239/3.0 Electromagnetism
The experimental basis and mathematical description of electrostatics, magnetostatics and electromagnetic induction, together with a discussion of the properties of dielectrics and ferromagnetics, are presented. Both the integral and vector forms of Maxwell's equations are deduced.
RECOMMENDATION A minimum grade of C in PHYS 104/6.0 or PHYS 106/6.0.
PREREQUISITE (PHYS 104/6.0 or PHYS 106/6.0) and (MATH 221/3.0 or MATH 227/3.0 or MATH 280/3.0).

PHYS 242/3.0 Relativity and Quanta
Evidence for relativistic effects. Kinematics and dynamics in special relativity, space time diagrams, applications. Evidence for quanta, spectra, Bohr atom. Introduction to the Schroedinger equation.
RECOMMENDATION A minimum grade of C in PHYS 104/6.0 or PHYS 106/6.0.
PREREQUISITE PHYS 104/6.0 or PHYS 106/6.0.

PHYS 250/3.0 Foundations of Experimental Physics
Laboratory and lecture course that presents techniques and skills that are the foundations of experimental physics. Topics include statistical analysis of data, uncertainties in measurement, propagation of errors, software for data analysis, graphing and reporting. Students will be exposed to techniques in the measurement of electric, magnetic, thermal and mechanical properties. Laboratories also illustrate some principles of quantum physics, mechanics, electromagnetism and thermodynamics learned in other physics courses. Some exposure to computerized data acquisition is included.
LEARNING HOURS 132 (24L;36Lb;72P)
PREREQUISITE PHYS 104/6.0 or PHYS 106/6.0.

PHYS 260/3.0 The Physics of Light and Colour
Students will develop an appreciation for the physical and chemical processes that control light and colours. Students will learn the basic principles of light emission and propagation, image formation, the workings of optical devices and detectors, colour theory and colour perception, colour in art, colour in nature, and colours in astronomy.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0 or PHYS 118/6.0 or BIOL 102/3.0 or BIOL 103/3.0 or CHEM 112/6.0 or GEOL 102/3.0 or GEOL 104/3.0 or GEOL 106/3.0 or GEOL 107/3.0 or PSYC 100/6.0.

PHYS 315/3.0 Physical Processes in Astrophysics
This course relates observable quantities to the physical properties of astronomical sources thereby deciphering the varied nature of the cosmos. Basic physical processes in astrophysics are discussed and applied to diverse systems including planets, stars, the interstellar medium and distant galaxies. Topics include radiative transfer and the perturbation of the signal by instruments, the atmosphere, and the interstellar medium. The main astrophysical emission processes, both continuum and line, are also presented. An observing project will be carried out during the term.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PHYS 216/3.0 and PHYS 242/3.0, or permission of the Department.

PHYS 316/3.0 Methods in Mathematical Physics I
Methods of mathematics important for physicists. Complex arithmetic, series expansions and approximations of functions, Fourier series and transforms, vector spaces and eigenvalue problems, ordinary differential equations and Green's functions.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE (MATH 221/3.0 or MATH 280/3.0 or *MATH 227/3.0*) and (MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*).
EXCLUSIONS MATH 334/3.0; MATH 338/3.0; *PHYS 312/6.0*

PHYS 317/3.0 Methods in Mathematical Physics II
A continuation of PHYS 316/3.0. Partial differential equations, functions of a complex variable and contour integration, and special topics such as probability and statistics, group theory and non-linear dynamics.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE PHYS 316/3.0.
EXCLUSIONS MATH 228/3.0; MATH 326/3.0; MATH 338/3.0; *PHYS 312/6.0*

PHYS 321/3.0 Advanced Mechanics
An introduction to the equations of mechanics using the Lagrange formalism and to the calculus of variations leading to Hamilton's principle. The concepts developed in this course are applied to problems ranging from purely theoretical constructs to practical applications. Links to quantum mechanics and extensions to continuous systems are developed.
PREREQUISITE PHYS 212/3.0 and (MATH 221/3.0 or MATH 227/3.0 or MATH 280/3.0) and (MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*).

PHYS 334/3.0 Electronics for Physicists
The design of electronic circuits and systems, using commonly available devices and integrated circuits. The properties of linear circuits are discussed with particular reference to the applications of feedback; operational amplifiers are introduced as fundamental building blocks. Digital circuits are examined and the properties of the commonly available I.C. types are studied; their use in measurement, control and signal analysis is outlined. Laboratory work is closely linked with lectures and provides practical experience in the subjects covered in lectures.
LEARNING HOURS 132 (36L;36Lb;12T;48P)
PREREQUISITE PHYS 239/3.0.

PHYS 344/3.0 Introduction to Quantum Mechanics
Matter waves. Postulates of wave mechanics. Stationary states and one-dimensional potentials. Particle tunneling and scattering states. Introduction to matrix mechanics and Dirac notation. Quantized angular momentum, and the H atom.
EQUIVALENCY *PHYS 343/3.0.*
PREREQUISITE PHYS 212/3.0 and PHYS 242/3.0 and (MATH 221/3.0 or MATH 280/3.0) and (MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*).

PHYS 345/3.0 Quantum Physics of Atoms, Nuclei and Particles
Spin. Addition of angular momentum. Many electron atoms and the periodic table. Introduction to perturbation theory and Fermi's golden rule. Time dependent perturbations, including stimulated emission. Introduction to nuclear and particle physics.
PREREQUISITE PHYS 344/3.0.

PHYS 350/6.0 General Laboratory
Experiments in heat, optics, electron physics, quantum physics, and radioactivity are performed. A substantial part of the course is an experimental project during the Winter Term. A topic for the experimental physics, or observational astronomy project will be assigned after discussion with the student.
LEARNING HOURS 222 (72Lb;6O;144P)
PREREQUISITE PHYS 239/3.0 and PHYS 242/3.0 and PHYS 250/3.0.

PHYS 372/3.0 Thermodynamics
Temperature, equations of state, internal energy, first and second laws, entropy and response functions. Application to heat engines and refrigerators. Free energies, Legendre transformations, changes of phase. Introduction to the Boltzmann factor and statistical mechanics.
PREREQUISITE PHYS 242/3.0.

PHYS 414/3.0 Introduction to General Relativity
Einstein's theory of gravity is developed from fundamental principles to a level which enables the student to read some of the current literature. Includes an introduction to computer algebra, an essential element of a modern introduction to Einstein's theory.
PREREQUISITE PHYS 321/3.0 and (MATH 334/3.0 or PHYS 317/3.0 or *PHYS 312/6.0*).

PHYS 432/3.0 Electromagnetic Theory
Electromagnetic theory and applications. Topics include: Maxwell's equations, gauge theory, relativistic transformations of Maxwell's equations, properties of waves in free space, dielectrics, conductors and ionized media, reflection and refraction at the surfaces of various media, propagation in metallic and dielectric waveguides, radiation of electromagnetic waves from charged particles and antennae.
PREREQUISITE PHYS 239/3.0 and (MATH 221/3.0 or MATH 280/3.0) and (MATH 225/3.0 or MATH 231/3.0 or *MATH 232/3.0*).

PHYS 435/3.0 Stellar Structure and Evolution
This course provides a detailed account of the formation, structure, evolution and endpoints of stars. Topics include the HR diagram, nuclear energy generation, radiative transport and stellar model building, supernovae, white dwarfs, neutron stars, pulsars and black holes.
PREREQUISITE PHYS 315/3.0.

PHYS 444/3.0 Advanced Quantum Physics
This course covers perturbation theory, scattering theory and the addition of angular momentum. Special topics may include: many electron systems, path integral formulation of quantum mechanics, entanglement and quantum computing, quantum optics.
PREREQUISITE PHYS 345/3.0.

PHYS 453/3.0 Advanced Physics Laboratory
Advanced physics laboratory course providing students with experience in a range of experimental techniques and analysis. A selection of experiments are performed from fields including nuclear physics, applied physics, fluid mechanics, solid state physics, low-temperature physics and optics.
LEARNING HOURS 132 (76Lb;60P)
PREREQUISITE PHYS 350/3.0 and (PHYS 344/3.0 or CHEM 313/3.0).

PHYS 454/3.0 Advanced Physics Design Project
Groups of students in physics and engineering physics undertake a large design project of their choice that reflects and further develops their knowledge of physics. The students then build a prototype of their design to demonstrate the feasibility of the project within the design constraints.
LEARNING HOURS 132 (72L;60P)
PREREQUISITE PHYS 350/3.0.

PHYS 460/3.0 Laser Optics
Topics and applications in modern physical optics, culminating with the development of the laser and its current applications. Topics include: Gaussian beam propagation, optical resonators, Fourier optics, fiber optics, holography, light matter interaction using classical and semi classical models, and the basic theory and types of lasers.
PREREQUISITE PHYS 239/3.0 and (PHYS 344/3.0 or CHEM 313/3.0).
COREQUISITE PHYS 432/3.0.

PHYS 472/3.0 Statistical Mechanics
Phase space, the ergodic hypothesis and ensemble theory. Canonical and grand canonical ensembles. Partition functions. Ideal quantum gases. Classical gases and the liquid vapour transition. Introduction to techniques for interacting systems, including Monte Carlo simulations.
PREREQUISITE (PHYS 213/3.0 or *PHYS 313/3.0*) and PHYS 344/3.0 and PHYS 372/3.0.
EXCLUSIONS CHEM 412/3.0

PHYS 479/3.0 High Performance Computational Physics
This course teaches students how to use the tools of high performance computing facilities, including communications protocol for parallel computations. Students will employ these facilities and tools and use various numerical algorithms in the solution of physics problems.
LEARNING HOURS 120(24L;24T;72P)
PREREQUISITE PHYS 213/3.0 or *PHYS 313/3.0* and PHYS 344/3.0
COREQUISITE PHYS 432/3.0

PHYS 480/3.0 Solid State Physics
A fundamental treatment of the properties of solids. Topics include: crystal structure, X ray and neutron scattering, the reciprocal lattice, phonons, electronic energy bands, and the thermal, magnetic, optical and transport properties of solids.
PREREQUISITE PHYS 345/3.0 or CHEM 313/3.0.

PHYS 483/3.0 Nanoscience and Nanotechnology
An examination of the key ideas, techniques and technologies in the fields of nanoscience and nanotechnology. Emphasis will be placed on the physics involved, measurement techniques, and technological applications. Topics covered are selected from the following: electrical and optical properties of quantum dots, quantum wires and nanotubes; quantum information technology; mesoscopic electronics; nanostructures on surfaces; and scanning probe and optical microscopy.
PREREQUISITE (PHYS 345/3.0 or CHEM 313/3.0) and (PHYS 480/3.0) or permission of the Department.

PHYS 490/3.0 Nuclear and Particle Physics
A systematic introduction to nuclear and particle physics for advanced physics students. Topics include basic nuclear properties: size, mass, decay and reactions; shell model of nuclear structure; magnetic moments; gamma and beta decay; quark model of elementary particles; and strong, electromagnetic and weak interactions.
PREREQUISITE PHYS 345/3.0.

PHYS 491/3.0 Physics of Nuclear Reactors
The objective of this course is the understanding of the fundamental physics associated with a nuclear reactor. Topics include a brief review of basic nuclear physics, neutron interactions and cross sections, neutron diffusion, neutron moderation, theory of reactors, changes in reactivity, control of reactors. Offered in alternate years.
NOTE Manual: estimated cost $15 to $25 per manual.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE Level 3 or 4 in a PHYS, ASPH or MAPH Plan.

PHYS 495/3.0 Introduction to Medical Physics
Topics include: the production and measurement of X rays and charged particles for radiation therapy and nuclear medicine; interactions of radiation with matter and biological materials; interaction coefficients and radiation dosimetry; radiation safety; physics of medical imaging with examples from nuclear medicine, ultrasound and magnetic resonance imaging.
PREREQUISITE Level 3 or 4 and registration in an ASPH, MAPH, or PHYS Plan.

PHYS 590/6.0 Research Thesis
Investigation of a contemporary research topic in physics or astronomy under the supervision of a faculty member, and leading to a written thesis and an oral presentation of results.

PREREQUISITE Level 4 in a PHYS, ASPH or MAPH Plan.

POLS 101/3.0 Contemporary Issues in Politics
An examination of current political issues. By examining an issue or problem students will be exposed to political institutions, processes and concepts in political science. The subject matter will change depending on the instructor and current political events.
NOTE This course does not lead to further courses in Political Studies. Not available for credit towards any POLS Plan.
LEARNING HOURS 120 (24L;12T;12Oc;72P)

POLS 110/6.0 Introduction to Politics and Government
An introduction to political science that provides both a framework for thinking about politics and the institutions of governance, and some of the vocabulary necessary for political analysis.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.

POLS 211/3.0 Canadian Government
An examination of the institutions and constitutional foundations of government and politics in Canada. Offered annually.
PREREQUISITE POLS 110/6.0.

POLS 212/3.0 Canadian Politics
An analysis of the processes, groups, parties, voters, and culture of Canadian politics. Offered annually.
LEARNING HOURS 130 (10L;30T;40G;10I;20Oc;20P)
PREREQUISITE POLS 110/6.0.

POLS 230/3.0 American Elections
This course provides a general introduction to the institutions and politics of the electoral process in the United States. The course integrates literature on the electoral system (including the system of primary elections), campaign financing, political parties, voting behaviour, political sociology, and political communication.
PREREQUISITE POLS 110/6.0.

POLS 241/3.0 Comparative Politics: Transformations
An examination of how and why societies change and the context in which transformation occurs. Offered annually.
PREREQUISITE POLS 110/6.0.

POLS 242/3.0 Comparative Politics: Contemporary Regimes
The nature of political regimes in advanced industrial countries and the developing world. Offered annually.
PREREQUISITE POLS 110/6.0.

POLS 243/3.0 States, Ethnic Diversity, and Conflict
A comparative examination of the ways in which selected polities respond to national, ethnic, linguistic, religious, and racial diversity.
PREREQUISITE POLS 110/6.0.

POLS 244/3.0 Comparative Politics: Democracy and Democratization
A comparative exploration of the apparent disjuncture between the normative assumptions of liberal democratic theory and the realities of democracy-building.
PREREQUISITE POLS 110/6.0.

POLS 250/6.0 Political Theory
A survey of the principal ideas of Western political theorists from ancient to modern times, focusing in particular on the role and scope of government; the proper organization of governmental power; the nature of political obligation; and the ethics of political power and authority. Offered annually.
PREREQUISITE POLS 110/6.0.

POLS 251/3.0 Political Ideologies
This course introduces students to a range of contemporary ideologies, such as liberalism, socialism, conservatism, fascism, feminism, anarchism, ecologism, fundamentalism, and nationalism. It includes primary and secondary readings, and will focus on the critical interpretation of these competing belief systems.
PREREQUISITE POLS 110/6.0.

POLS 261/3.0 International Politics
An introduction to the major issues in the study of international relations: questions of war and peace, national security, the role of the 'state', foreign and defense policy, gender and international relations, and international institutions.
PREREQUISITE POLS 110/6.0.

POLS 262/3.0 International Political Economy
An introduction to the major issues in the study of international political economy, including transnationalism, integration, globalization, and underdevelopment.
LEARNING HOURS 118 (24L;10T;84P)
PREREQUISITE POLS 110/6.0.

POLS 263/3.0 Introduction to International Security
This course introduces students to current theoretical and policy debates about the nature of 'international security.' In addition to addressing the meaning of this contested concept, we will examine three principal ways in which security has been organized by states, specifically: collective security, collective defense, and security communities.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
PREREQUISITE POLS 110/6.0.

POLS 264/3.0 World Politics in Historical Perspective
This course examines the evolution of global politics in the modern era, from the institutionalization of sovereignty in the Peace of Westphalia to the contemporary period.
PREREQUISITE POLS 110/6.0.

POLS 280/3.0 Introduction to Women, Gender and Politics
This course analyzes the status of women and men in domestic and global politics. It presents primary concepts used in political science to address: What is gender? How is it political? How have the women's movement and other collectivities addressed inequality and oppression? What does gender equality look like, and how can it be obtained?
PREREQUISITE POLS 110/6.0.

POLS 310/3.0 Principles of the Canadian Constitution
An examination of the evolution of constitutional principles in Canada. Topics include developments in federal-provincial relations, the role of the courts in federal-provincial disputes, and the nexus between the community values of federalism and the individual rights in the Canadian Charter of Rights and Freedoms.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 312/3.0 Political Behaviour
This course provides an introduction to the principal theoretical perspectives and empirical debates in the study of elections, voting, public opinion, political participation and political culture in established democracies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 313/3.0 Mass Media and Politics in Canada
A critical examination of the relationship between the mass media and politics, focusing on the functions of the media in modern liberal democracies and the ways in which news stories are created and packaged.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 317/3.0 Charter Politics
How courts are responding to their responsibility to review legislative and executive decisions in terms of their impact on citizens; the impact of the Charter on the way government is viewed.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 318/3.0 The Canadian Welfare State
An examination of the character and functions of the Canadian welfare state. Theoretical explanations of the welfare state. The historical development of the Canadian welfare state. Proposals for social policy reform and their implications. Offered in alternate years.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.
EXCLUSION(S) GNDS 421/6.0

POLS 319/3.0 Public Discourse in Canada: Issues and Debates
An introduction to Canadian political thinkers who have addressed important themes in contemporary Canadian public, legal and theoretical discourse, including multiculturalism, critical race theory, antipornography campaigns, sexual violence, globalization and modern alienation.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 320/3.0 Indigenous Politics
An examination of Indigenous politics in a Canadian context, including aboriginal self-government.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 327/3.0 Topics in Comparative Politics
An examination of key issues in comparative politics. Topics will vary from year to year; consult department homepage.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 328/3.0 Topics in European Politics
An examination of key issues in European politics. Topics will vary from year to year; consult the department homepage.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 329/3.0 European Politics
An introduction to European politics. The themes and geographic focus vary from year to year; they may include current political institutions and forces, the historical evolution of the European polities, and both Western and Eastern Europe.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 331/3.0 American Government
Survey of the political process in the United States; functioning and interaction of the principal formal and informal political institutions, the relationship between those institutions and their environment, the making of public policy, and current issues and trends.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 332/3.0 Post-Communist Politics
The politics of the Russian Federation and selected countries of Central and Eastern Europe.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 335/3.0 Topics in British Politics
An examination of key issues in British politics. Topics will vary from year to year; consult the department homepage.
NOTE Offered only at the Bader International Study Centre, Herstmonceux.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 336/3.0 British Politics
Contemporary problems facing Britain as a result of its historical evolution: economic stagnation, centrifugal forces of nationalism and communal violence, and the decline of the two-party system.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 338/3.0 European Integration
An examination of the European union and the forces towards integration: origin, politics and future.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 339/3.0 Politics of India
This course provides an overview of the society, economy, and politics of India through the lens of some of the most influential theories in comparative politics. This format is designed to engage with the key debates in the field and challenge the canonical texts by drawing on the experience of a large multiethnic non-western democracy.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 341/3.0 Chinese Politics
The course begins with an historical overview of the late Qing dynasty, the origins of the Chinese revolution, and 50 years of the People's Republic of China. It then focuses primarily on political science concepts and approaches to the study of Chinese politics as well as issues of reform in various sectors of China's economy and polity.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 342/3.0 Latin American Politics
Comparative study of Latin American politics. Topics include the political legacies of colonialism and independence, the evolution of class structures, populism, the role of the military, and the transition to democracy and free market policies. Emphasis is on the countries of continental South America.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 346/3.0 Development Theory
A critical examination of the current theories of development influenced by various post-Marxist, postmodernist and postcolonial tendencies. Growth strategies practiced by the state and alternative visions offered by the social movements will also be discussed.
NOTE Students with third-year standing in the Development Studies Medial should contact the Department.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.
EXCLUSIONS DEVS 340/3.0

POLS 347/3.0 The Politics of Africa
Major issues in the contemporary politics and political economy of sub-Saharan Africa. The development of the colonial and post-colonial state, capitalist development and the role of indigenous and international capital, and political and socio-economic aspects of class, ethnicity and gender.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 348/3.0 Middle East Politics
An examination of the politics of the Middle East, including the legacy of the Ottoman Empire and European colonialism, the rise of nationalism, the role of religion, the nature of the state and political participation in different countries in the region.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 351/3.0 Liberal Theory
An examination of the major theories and critiques of liberalism, focusing on the rival conceptions of freedom and equality that animate classical 'laissez-faire' liberalism, egalitarian liberalism, left-libertarianism, and perfectionist liberalism, and the critical responses these various kinds of liberalism have provoked from communitarians, feminists, Marxists, and others.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 352/3.0 Women and the History of Political Thought
Drawing on historical texts, this course explores the representations of women and the constructions of femininity and masculinity, the body, and gender relations in the history of political thought, and explores contemporary feminist responses to these texts and ideas.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 353/3.0 History of Political Thought
An analysis of the origin and development of certain major ideas in the western political tradition.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 354/3.0 Democratic Theory
An exploration of the normative underpinnings of democracy, based on a survey of selected historical texts, contemporary theories, and current problems.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 355/3.0 Issues in Contemporary Political Theory
This course discusses important contemporary issues that arise in political theory. Examples include: liberty and paternalism, toleration, punishment, multiculturalism, climate change, intergenerational justice (or injustice) and violence.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.
EXCLUSIONS POLS 394/3.0 (Fall 2015)

POLS 358/3.0 Critical Perspectives on Contemporary Capitalism
Selected topics in the critique of capitalism, e.g. Marxism, democracy, the environment, globalization, employment and popular culture.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 359/3.0 Issues in Political Theory
The course will focus on central issues that arise in political theory: citizens' relation to the state and to each other. Specifically, the course will discuss problems of liberty, toleration, punishment, and multiculturalism; and inter-state problems such as global justice, just war, justice and the environment, and inter-generational justice.
LEARNING HOURS 120 (24L;12S;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 360/3.0 International Relations Theory
This course examines the theoretical approaches, concepts, and debates (e.g. levels of analysis, causality, methodology, historiography) that shape the evolution of International Relations as a discipline, including subfields (e.g. international security and international organizations) and how they relate to the conduct of international politics.
LEARNING HOURS 114 (36L;78P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 361/3.0 Regional International Organization
A survey of selected regional international organizations for political cooperation, military security and economic integration in Europe, Latin America, Africa and the Asia-Pacific region.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 364/3.0 International Peace and Security
An examination of the concept of international security and the causes of war and conditions of peace. Topics include: the role of nuclear weapons after the Cold War; the economics of security; new security themes (environmental and ethnic factors); regional security and peacekeeping; alliance dynamics; and European security and the future of NATO.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 366/3.0 The United Nations
An examination of the principles, institutions and politics of the United Nations, assessing its effectiveness in maintaining international peace and promoting cooperation among states.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 367/3.0 American Foreign Policy
An examination of American foreign policy, with particular emphasis on the analysis of concepts and issues and the study of decision-making processes.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 369/3.0 Canadian Foreign Policy
An analysis of Canadian foreign policy, its major objectives and orientations. Topics covered include Canada's role and interests in major international organizations and its relations with key countries and regions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 380/3.0 Puzzles in Political Economy
The course introduces students to the scientific method and its application to various puzzles in Canadian and comparative political economy. Following a primer on research methods, several empirical and theoretical puzzles are examined (e.g. relationships between voting and economic interests, the origins and drivers of government taxation, etc.).
LEARNING HOURS 120 (36L;12O;72P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 382/3.0 Gender and Social Policy
This course explores feminist questions about the role of social policy in alleviating gender inequalities. Through an intersectional analysis of gender, race and class, this course examines how social policies address poverty, un/employment, immigration and colonialism. Each student will explore one Canadian social policy in detail.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.
EXCLUSION(S) GNDS 421/6.0

POLS 383/3.0 Law and the Governmental Process
An examination of the role of law in politics, the differences between legal and political reasoning, the law and politics of constitution-making, and the political character of criminal and civil law. Topics include the victim's rights movement, pornography and censorship, and the role of litigation in political life.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 384/3.0 Strategies of Political Research
An exploration of major issues and schools of thought in the philosophy of social science and an examination of contemporary approaches to the study of politics.
NOTE This course is open to POLS major and medial who have completed 1.0 100-level credit in Political Studies.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 385/3.0 Introduction to Statistics
An introduction to the analysis of data from real life situations. Covers study design, descriptive and inferential statistics. Topics include probability, t-tests, regression, Chi-square tests, analysis of variance. Emphasis is in the foundation of statistical inference and practical application of statistical methods using statistical software.
LEARNING HOURS 118 (24L;10T;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.
EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; COMM 162/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0

POLS 386/3.0 Political Economy and Mass Media
An examination of the history and political economy of the mass media, exploring the impact of a partisan press, ownership and use of technology on how our identity has been shaped. It will draw upon a comparative assessment of the mass media in advanced liberal democracies.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 387/3.0 Politics and Culture
The course explores contemporary approaches to understanding the politics of culture. In the everyday behaviours, attitudes and practices that form our culture, politics play a role. The course considers a range of diverse theoretical perspectives on the interrelationship of culture with social, political, and economic power.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 388/3.0 Citizenship and Non-Citizenship
Focusing on issues of citizenship and non-citizenship in the modern world. How issues of nationality and nationalism, minority rights, gender, class, race and ethnicity, and immigration status impact on the rights and obligations of citizenship and central to the politics of these debates. The relevance of these issues to the current Canadian context will be an ongoing theme of the course.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 391/3.0 Introduction to Electoral Systems
This course introduces students to the various families of electoral systems in use around the world. It examines their variations and assesses the consequences of electoral systems on political parties, legislatures and governments.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 392/3.0 Topics in Canadian Politics
An examination of selected aspects of Canadian politics and government, including institutions and behavioural approaches. The focus of this course will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 393/3.0 Topics in Comparative Politics
A comparative examination of the politics and government of different countries, or theories or themes in comparative politics. The focus of this course will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 394/3.0 Issues in Political Theory
An exploration of different aspects of political thought, political theory, and political philosophy. The focus of this course will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 395/3.0 Topics in International Political Economy
An examination of different topics and issues in global political economy, such as the role of international financial institutions, the politics of global trade, or the global distribution of wealth. The focus of this course will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 396/3.0 Topics in International Relations
Issues in global politics, international relations, international diplomacy, or foreign policy will be examined in this course. The focus of this course will vary from year to year; consult the departmental homepage for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 397/3.0 Topics in Gender and Politics
An investigation of selected problems in feminist and gender analysis, examining the different authors and issues. The focus of this course will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 398/9.0 Introduction to International Law and Politics
This course provides foundational knowledge about the relationship between international politics and international law. It then explores more specific aspects of international law, including international criminal law and the Law of Armed Conflict, and situates the central statutes, customs, and institutions of international law within the broader context of global governance.
NOTE Only offered at the Bader International Study Centre as part of the Field School in International Law and Politics.
LEARNING HOURS 348 (72L;36S;24G;24Oc;192P)
PREREQUISITE (12 units in POLS at the 200 level or above) and (a GPA of 2.0 on all units in POLS), or permission of the Department.

POLS 400/3.0 Seminar in Political Science
This seminar will examine key texts in the discipline of political science. The focus of this course will vary from year to year. See the departmental website for further details.
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 401/3.0 Political Theory: Questions & Challenges
This course will consider various theoretical writings and topics in political science. The focus of this course will vary from year to year. Consult the departmental website for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 402/3.0 Science and Justice
The word 'science' comes from the Latin *scientia*, which means 'having knowledge'. What is the relation between science and normative political ideals such as democracy, justice and equality? The topics covered in any given year will vary, but may include the ethical, legal and social consequences of advances in the biomedical or environmental sciences.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 403/3.0 Gender Politics: Questions & Challenges
An investigation of selected issues in gender analysis, considering a variety of perspectives and case studies. The focus of this course will vary from year to year. Consult the departmental website for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 404/3.0 Canadian Politics: Questions & Challenges
An examination of key issues in Canadian Politics. Topics will vary from year to year; consult the departmental website for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 405/3.0 International Relations: Questions & Challenges
Issues in global politics, international relations, international diplomacy, or foreign policy will be examined in this course. The focus of this course will vary from year to year; consult the departmental homepage for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 406/3.0 Comparative Politics: Questions & Challenges
A comparative examination of the politics and government of different countries, theories or themes in comparative politics. The focus of this course will vary from year to year. Consult the departmental website for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 410/3.0 Seminar in Canadian Politics
An examination of key issues in Canadian politics. Topics will vary from year to year; consult the departmental website for further details.
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 412/3.0 Provincial Politics
Content varies from year to year; consult the departmental website for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 414/3.0 Politics in Quebec
An introduction to the political history of Quebec: the development of ideologies (including nationalism), constitutional developments, and the building of the Quebec state during the Quiet Revolution. Some contemporary issues in Quebec politics, and the relationship between Quebec and the rest of Canada.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 415/3.0 Canadian Federalism
An examination of the evolution and operation of the Canadian federal system. Topics include the concept and meaning of federalism, the implications of provincial/federal interdependence, and the politics of constitutional reform.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 419/3.0 Political Communication
A critical examination of the rhetoric of political persuasion, the framing and construction of political messages and the way in which meaning is interpreted and created in the political system. The mass media are an important, though not exclusive, focus of this course.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 421/3.0 Elections
An examination of the importance of elections to the maintenance of democratic systems. Six themes are discussed: the history and theory of democratic participation; the legal framework; campaign organization; why people vote the way they do; the manifestation of social cleavages during campaigns; and the future of electoral participation. Canadian examples are placed in a comparative context.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 422/3.0 Public Opinion
This course provides an extensive survey of the principal theoretical perspectives and empirical debates in the study of public opinion.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 430/3.0 Seminar in Comparative Politics
Topics vary from year to year, and may include class, ethnic, and regional politics, law and politics, interests and interest articulation, and democracy and democratization. Consult the departmental homepage.
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 431/3.0 European Politics
Multi-level politics in Europe: the European Union and its member states. Development of the EU, institutions and policy processes at the EU level, how the domestic politics of European states affects the EU and vice-versa. Economic union, supranationalism, political impulsion for economic integration, accession of new member states.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 432/3.0 The Modern Welfare State
An exploration of the emergence and functioning of the modern welfare state in comparative perspective.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 433/3.0 Problems of American Democracy
Focuses on recent debates about the sources of malaise in the American system, with a special emphasis on understanding the dynamics of mass public opinion and the factors influencing public disaffection from political institutions.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 434/3.0 Multiculturalism
This course explores the political implications of multiculturalism from a variety of perspectives, including theory, policy, and historical meaning. Issues include: history and policy of multiculturalism in the Canadian, US and global contexts; the construction of 'race' and anti-racism; and the role of multiculturalism in citizenship inclusion and exclusion.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 435/3.0 The Palestinian-Israeli Conflict
The course introduces students to some of the important questions about the Palestinian-Israeli conflict. What is the history of the conflict? How did distinct national identities emerge? What issues are at stake for the actors involved? How do domestic factors shape Palestinian-Israeli relations? Why have peacemaking efforts been unsuccessful?
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 436/3.0 Race and U.S. Politics
This course puts race front and centre in American politics. Topics include the subjugation of Blacks, Latinos, and Asian Americans during the 19th and 20th centuries; the civil rights movement; contemporary manifestations of racial discrimination and their impact on who gets elected to positions of power and whose prerogatives become law.
LEARNING HOURS 120(36L;84P)
PREREQUISITE Level 4 and (registration in POLS major or medial plan) and POLS 250 and (a GPA of 2.5 on all units in POLS)

POLS 439/3.0 American Politics
Focus varies from year to year depending on the research interests of the faculty members involved. See the departmental homepage for further details.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 440/3.0 The Politics of Ethnicity and Nationalism
An exploration of the causes of ethnic conflict, but focuses in particular on the strategies which states use to manage or resolve such conflicts. The review of state strategies is comprehensive in nature: using case studies, it includes approaches which are morally unacceptable as well as approaches which many consider morally desirable.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 442/3.0 Latin American Politics
Advanced research course focusing on problems relating to the consolidation of democracy in contemporary Latin America. Topics may include political parties and elections, economic policy, mass media, social movements, and political violence. Case studies are drawn largely from continental South America.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 443/3.0 Gender and Globalization
General issues and selected specific topics reflecting an interdisciplinary approach combining international political economy, feminist theory and comparative politics. Case studies from both industrialized and developing nations.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 444/3.0 Ethnicity and Development
This course explores the dominant themes in the field of ethnic politics and development. We examine the role of social norms, group-differentiated rights, electoral politics and patronage, status inequality, and the historical role of ethnicity in the state-building process on development outcomes.
LEARNING HOURS 120(36S;84P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 445/3.0 Dialectics of Development
A critical examination of selected 'new' theories of development (neo-Marxism, postmodernism, new social movements, rational choice, flexible specialization, etc.), followed by a study of selected Asian countries' development strategies to evaluate the relevance of the theories.
LEARNING HOURS (Lecture 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 450/3.0 Political Theory: Appeals to Human Nature
An analysis of texts that take the nature of humans as the basis for political argument. Emphasis is on the search for foundations for political claims and the nature of 20th-century relativism, cultural and moral.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 451/3.0 Seminar in Political Theory
An examination of key issues in political theory. Topics will vary from year to year; consult the departmental homepage.
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 453/3.0 Modern Political Philosophy
An examination of a particular problem or theme in Western political thought post-1500; issues covered might include property, revolution, sovereignty, republicanism, or gender.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 456/3.0 Theories of Identity Politics
An investigation into different theoretical perspectives on the issue of 'identity' and the import of these perspectives for the 'politics of identity'. Theories of gender, race, class, nation, and sexual orientation, from a variety of perspectives, including Marxist, feminist, postmodern, and psychoanalytic theory.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 457/3.0 Issues in Global Justice
An exploration of issues in international politics from a theoretical and normative perspective, including global redistributive justice, just war theory, theories of secession, and normative theories of humanitarian intervention. Among the questions posed are whether we have an obligation to redistribute wealth to strangers, what can justify secession, intervention and war; and the terms on which people can migrate to other countries.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 458/3.0 Ethics of War and Intervention
An examination of the debates about when it is (morally) justified to go to war - and when it isn't. Topics will include war as self-defense, humanitarian intervention, preventive war, and different conceptions of the morally proper way to wage war.
LEARNING HOURS (Lecture 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 460/3.0 International Relations of the Asia-Pacific
This IR seminar introduces students to major issues shaping the study and conduct of international politics in Southeast Asia, East Asia, and the Asia-Pacific. Seminar topics examine the involvement of major powers in the region, regional institutions and regimes, norms and identities, transnational crime, non-state actors, and natural disasters.
LEARNING HOURS 120 (30S;3T;3G;84P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 461/3.0 International Regimes
An exploration of problems of order and change in the international system with particular attention to the theory and practice of co-operation, ranging from classic concepts of international organization to current debates about international regimes.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 462/3.0 Studies in National Security
Contemporary aspects of Canadian international security policy. Topics include: the evolution of policy towards NATO; bilateral defense arrangements with the US; collective security and cooperative security; peacekeeping; defence economics; the role of domestic factors in the shaping of strategy; and aid of the civil power.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 463/3.0 International Relations Theory
Critical examination of selected themes, issues and works in classical and contemporary international relations theory.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 464/3.0 Russian Foreign Policy
An examination of the determinants of Russian Foreign Policy, and the extent to which they have changed over the last half-century. The course will cover both historical and contemporary issues in Russian foreign relations.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 465/3.0 The Politics of War
A consideration of the main types of war theory, including descriptive, legal, normative, causal, process, and consequential, with applications to selected case studies.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 466/3.0 Politics of War in Africa
An examination of the political dimensions of violent conflict in Africa, including the causes of inter-state and intra-state conflict, and responses such as peacebuilding and global governance initiatives.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 467/3.0 International Political Economy
Theoretical approaches and issues within the field, while paying particular attention to hegemony and leadership, the economic dimension of post war and post cold war security, trade, money, debt, underdevelopment, regionalism, and international organization.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 468/3.0 The International Relations of the Middle East
This course analyzes Middle Eastern politics from the perspective of international relations. Themes covered include the evolution of various identities in the region, the role of outside actors in the Middle East, contemporary Middle Eastern state and social relations, and the role that Middle Eastern states play in contemporary world politics.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 469/3.0 Issues in Canadian Foreign Policy
This course focuses on Canadian-American relations, emphasizing the interaction in both bilateral and multilateral contexts. Primary concern with issues of trade, investment and resources, with some attention paid to security issues.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 470/3.0 Seminar in International Politics
The theoretical problems of analyzing foreign policy and the practical issues of diplomatic action.
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 471/3.0 Politics and Science in Technological Societies
An examination of connections between politics, science and technology. Topics include: ideologies and the autonomy of science; science in the Warfare State; controlling the social uses of science.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 482/3.0 Public Policy
An examination of key issues in the political economy of public policy. Topics will vary from year to year; consult the departmental homepage.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 483/3.0 Justice and Gender
An examination of how contemporary theories of justice fare from the standpoint of gender (specifically inequalities in gender relations) and what a just, non-gendered society might look like.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 484/3.0 The Politics of Globalization
An examination of the major theoretical debates and issues in contemporary globalization, including the historical roots of globalization, and the impact of globalization on culture, economics, trade, global governance, and global social movements.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 485/3.0 Seminar in Gender and Politics
An examination of key issues in gender and politics. Topics will vary from year to year; consult the departmental homepage.
LEARNING HOURS 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 486/3.0 The Politics of Rights
A difficult challenge facing a liberal-democratic polity is how to distinguish allowable state action from the protected sphere of human activity. The course examines contemporary debates about whether rights provide an appropriate critical standard for evaluating state action and looks at different institutional methods to assess the justification of state actions.
LEARNING HOURS (Lecture) 120 (36L;84P)
LEARNING HOURS (Seminar) 120 (36S;12G;72P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 510/6.0 Directed Special Reading
Students arrange their course of reading in consultation with members of the Department. They are expected to write reports on their readings and to discuss them in seminars.
LEARNING HOURS 240 (15I;225P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 511/3.0 Directed Special Reading
Students arrange their course of reading in consultation with members of the Department. They are expected to write reports on their readings and to discuss them in seminars.
LEARNING HOURS 120 (9I;111P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 512/3.0 Directed Special Reading
Students arrange their course of reading in consultation with members of the Department. They are expected to write reports on their readings and to discuss them in seminars.
LEARNING HOURS 120 (9I;111P)
PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.5 on all units in POLS).

POLS 590/9.0 Thesis
The thesis is optional and counts as one course toward an honours concentration in Political Studies. The thesis subject must be selected at the end of the penultimate year after consultation with members of the Department, and the thesis must be submitted by 31 March of the final year. The student can choose to pay for binding of the departmental copy.
LEARNING HOURS 348 (24S;24Pc;24G;12I;48Oc;216P)

PREREQUISITE Level 4 and (registration in a POLS Major or Medial Plan) and POLS 250/6.0 and (a GPA of 2.9 on all units in POLS).

PORT 103/3.0 Beginning Portuguese and Culture I

Introduction to the language and culture of Portugal and Brazil, acquiring basic communicative skills, vocabulary, and structures of the Portuguese language. This course promotes knowledge and understanding of the social, cultural, and historical contexts of both countries.

LEARNING HOURS 120 (36L;84P)

EXCLUSION(S) LLCU 101/3.0 (if taken between 2012-13 and 2014-15)

PORT 104/3.0 Beginning Portuguese and Culture II

Continuation of PORT 103/3.0. Basic communicative skills, vocabulary, and structures of the Portuguese language and the knowledge and understanding of the social, cultural, and historical contexts of Portugal and Brazil, and other Portuguese speaking countries.

LEARNING HOURS 120 (36L;84P)

PREREQUISITE PORT 103/3.0 or LLCU 101/3.0 if taken between 2012-13 and 2014-15).

EXCLUSION(S) LLCU 102/3.0 (if taken between 2012-13 and 2014-15)

PPEC 200/3.0 Introduction to the Study of Politics, Philosophy and Economics

This course will emphasize the analysis of conceptual complementarities, the assessment of arguments, and the application of principles in factual contexts that are the focus of study within the disciplines of Politics, Philosophy and Economics.

LEARNING HOURS 120 (24L;12G;84P)

PREREQUISITE 12.0 units from ECON 110/6.0; (ECON 111/3.0 and ECON 112/3.0); POLS 110/6.0; PHIL at the 100-level.

PPEC 400/3.0 Research Seminar in Politics, Philosophy and Economics

Politics, Philosophy and Economics approach problems from discipline specific perspectives, but the questions asked have fundamental similarities. In this course students will be exposed to research methods from all three different disciplines, while completing a research intensive project. Peer review and presentation skills will be emphasized.

LEARNING HOURS 120 (12L;12S;12G;84P)

PREREQUISITE Level 4 and registration in the PPEC Specialization Plan and a minimum Plan GPA of 2.60 and permission of the Department.

PSYC 100/6.0 Principles of Psychology
An introductory survey of basic areas of psychology including perception, cognition, learning and motivation and their biological substrata. Also reviewed are child development, individual differences, social psychology and abnormal psychology. Research participation experience is provided for students on an individual voluntary basis. Students are encouraged to participate in up to five hours of research experimentation. The course is based on a blended model where on-line learning is supplemented with a weekly lecture and small-group learning lab.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 221 (24L;22Lb;100O;75P)
EXCLUSION(S) PSYC 101/3.0; PSYC 102/3.0; PSYC 103/3.0

PSYC 101/3.0 Principles of Psychology I
An introductory survey of basic areas of psychology including perception, cognition, learning and motivation and their biological substrata. Also reviewed are child development, individual differences, social psychology, health and clinical psychology.
NOTE Not offered at Queen's; only available as a transfer credit.
EXCLUSION(S) PSYC 100/6.0; PSYC 102/3.0; PSYC 103/3.0.

PSYC 102/3.0 Principles of Psychology II
An introductory survey of basic areas of psychology including history, methods, perception, cognition, learning and motivation and their biological substrata.
NOTE Not offered at Queen's; only available as a transfer credit.
EXCLUSION(S) PSYC 100/6.0; PSYC 101/3.0

PSYC 103/3.0 Principles of Psychology III
An introductory survey of basic areas of psychology including child development, individual differences, social psychology, health and clinical psychology.
NOTE Not offered at Queen's; only available as a transfer credit.
EXCLUSION(S) PSYC 100/6.0; PSYC 101/3.0

PSYC 202/3.0 Statistics in Psychology
An introduction to descriptive and inferential statistics in psychology. Topics will include descriptive statistics, probability, correlation and regression, experimental design and one-way ANOVA.
PREREQUISITE A grade of B- in PSYC 100/6.0 and (registration in a PSYC Major or Medial or Specialization Plan).
EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; POLS 385/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0.

PSYC 203/3.0 Research Methods in Psychology
Lectures will focus on basic research methodologies. Labs will include the collection and statistical analysis of data, and the reporting of experimental findings. To introduce students to the breadth of psychological research, there will be a series of guest lectures in which professors present their own research.
PREREQUISITE PSYC 202/3.0; BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; POLS 385/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0 and (registration in a PSYC Major or Medial or Specialization Plan).
EXCLUSION(S) BMED 270/3.0 and STAM 200/3.0

PSYC 204/3.0 Applications and Careers in the Psychological Sciences
This course explores how the psychological sciences are applied in practice, and identifies education and training paths required for work in the psychological sciences. Students will gain significant exposure to career and education planning considerations within the psychological sciences.
LEARNING HOURS 111 (24L;12G;3O;72P)
PREREQUISITE PSYC 100/6.0.

PSYC 221/3.0 Cognitive Psychology
An introduction to the empirical study of mental processes. Topics include perception and attention, working memory, long-term memory, visual imagery, problem-solving, language, and decision-making.
NOTE Also offered online. Consult Art and Science Online. Learning Hours may vary.

NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PSYC 100/6.0.
EXCLUSION(S) *COGS 200/6.0*; *PSYC 220/6.0*

PSYC 231/3.0 The Study of Personality
An examination of the major theoretical approaches to the study of personality with attention to the utility of these theories as measured by empirical investigations.
PREREQUISITE PSYC 100/6.0.

PSYC 236/3.0 Introduction to Clinical Psychology
The experimental approach to understanding the causes, symptoms, course, and treatment of mental illness is emphasized in the analysis of disorders of cognition (e.g., schizophrenia), and problem behaviours (e.g., addictions, sexual disorders).
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)
EQUIVALENCY *PSYC 235/6.0*.
PREREQUISITE PSYC 100/6.0.

PSYC 241/3.0 Social Psychology
The study of the individual in the social context: Self and identity, social cognition, interpersonal behaviour (affiliation, attraction, sex, aggression, altruism); social attitudes, prejudice and discrimination; social influence and group processes (conformity, leadership and intergroup relations); applied social psychology.
NOTE Also offered online. Consult Arts and Science Online.
PREREQUISITE PSYC 100/6.0.

PSYC 251/3.0 Developmental Psychology
Introduction to the scientific study of human development, as well as the fundamental theories, methods and applications in the field of developmental psychology. A major focus of this course is the social, cognitive, and neurobiological processes that underlie perceptual, cognitive, and emotional development from conception to adolescence.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (12L;18T;36O;48P)
PREREQUISITE PSYC 100/6.0.

PSYC 271/3.0 Brain and Behaviour I
An introduction to behavioural neuroscience. The course primarily focuses on the basics of neuronal operation, functional neuroanatomy, neuropharmacology, and behavioral neuroscience methods. This will be followed by an examination of input (sensory) and output (motor) systems of the brain. Finally, topics relevant to lateralization of function and language will be covered.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PSYC 100/6.0.
ONE-WAY EXCLUSION May not be taken with or after NSCI 323/3.0; NSCI 324/3.0; PSYC 370/3.0.

PSYC 299/3.0 Introduction to Directed Research in Psychology
Laboratory courses to be arranged in consultation with individual Faculty members of the Department.
LEARNING HOURS 120(72Lb;24G;24P)
PREREQUISITE PSYC 100/6.0 and registered in an Honours Plan in Psychology or by Undergraduate Chair permission.

PSYC 301/3.0 Advanced Statistical Inference
Statistical inference (continuation of PSYC 202/PSYC 203) and laboratory projects. The course covers critical thinking about research and statistics and three types of statistical analyses: tests of categorization, comparisons of means, and association.
NOTE Enrollment is limited. Restricted to students in a PSYC Major Plan.
LEARNING HOURS 120 (36L;36Lb;12G;12O;24P)
PREREQUISITE [A minimum GPA of 1.90 in (PSYC 202/3.0 or STAT_Options) and PSYC 203/3.0] and (a minimum GPA of 2.60 in PSYC at the 100 and 200 level) and (registration in a PSYC Major Plan).

PSYC 302/3.0 Advanced Research Methods
The application of previous statistical and methodological courses (continuation of PSYC 202/PSYC 203/PSYC 301) toward the design, execution, analysis, and communication of a research project. Lectures and laboratories cover data collection, data management, some advanced statistical analyses, and communication skills.
NOTE Enrollment is limited. Restricted to students in a PSYC Major Plan. Required for admission to PSYC 501/9.0.
LEARNING HOURS 120 (36L;36Lb;12G;12O;24P)
PREREQUISITE A minimum grade of C in PSYC 301/3.0 and registration in a PSYC Major Plan.

PSYC 305/3.0 Introduction to Comparative Cognition
An overview of the evolution and function of cognitive processes. Emphasis will be placed on understanding how natural selection shaped cognition across animal species. Topics such as memory, decision making, cooperation, and communication will be examined from a behavioral ecology and experimental psychology perspective.
LEARNING HOURS 120(18L;18T;120O;72P)
PREREQUISITE PSYC100 and at least 6.0 units at the 200-level or above in PSYC and/or BIOL and/or LING and/or LISC and/or COGS
EQUIVALENCY *PSYC 205/3.0*

PSYC 315/3.0 Introduction to the Analysis of Psychological Signals
The objective of this course is to (1) introduce the student to basic techniques for the quantitative analysis of time-varying signals and (2) teach the student how to apply these techniques using MATLAB. Emphasis will be placed on methods appropriate to the psychological research environment.
NOTE Expertise in MATLAB or signal processing is not required.
LEARNING HOURS 120 (18L;36Lb;66P)
PREREQUISITE PSYC 203/3.0.
EXCLUSION(S) PSYC 495/3.0 (2012-2016)

PSYC 320/3.0 Selected Topics in Cognitive Neuroscience
Upper year courses related to the discipline of cognitive neuroscience. Offered periodically.
LEARNING HOURS may vary
PREREQUISITE PSYC 221/3.0.

PSYC 321/3.0 Psycholinguistics
An introduction to psycholinguistic research and theory. Weekly lectures and laboratories will introduce topics including language perception, language production, conversation and linguistic representation. Applied issues in language research will be emphasized (e.g., speech pathology, language aids, and machine recognition of speech).
LEARNING HOURS 120(18L;18Lb;72P)
PREREQUISITE PSYC 221/3.0 and [PSYC 203/3.0 or (Level 3 or above and registration in a LING Plan and a grade of B- in PSYC 100/6.0)].

PSYC 323/3.0 Laboratory in Attention
The laboratory in attention course provides students with both demonstrations and hands-on experience with the methodological design and data analysis techniques used in conducting classic studies of attention. Experimental techniques include attentional cueing, visual search, change blindness, inattentional blindness, eye-tracking, multi-object tracking, and functional imaging.
PREREQUISITE (PSYC 203/3.0 and [PSYC 221/3.0 or *PSYC 220/6.0*]) or *COGS 200/6.0*.

PSYC 330/3.0 Selected Topics in Clinical Psychology
Upper year courses related to the discipline of clinical psychology. Offered periodically.
LEARNING HOURS may vary
PREREQUISITE PSYC 236/3.0.

PSYC 332/3.0 Health Psychology
Key issues in health and health care require approaches embodying psychological, biological, and sociological factors. For every CT scan, injection, or doctor visit, there is a person to be considered. This course explores a variety of health-related topics where psychology has a significant role (e.g., health promotion, stress, psychoneuroimmunology, medical contacts, pain, illness, sport). Canadian statistics used in discussions.
PREREQUISITE (PSYC 235/6.0 or PSYC 236/3.0) and (PSYC 202/3.0 or 3.0 units from STAT_Options).

PSYC 333/3.0 Human Sexuality
An overview of typical sexual behaviour and its variations. Topics include the history of sex research, the sexual response cycle, sexual dysfunction, gender identity, and sexual orientation. Particular attention will be paid to current issues in sex research and theory.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PSYC 235/6.0 or PSYC 236/3.0 or PSYC 251/3.0 or PSYC 271/3.0 or PSYC 370/3.0.

PSYC 334/3.0 Laboratory in Psychological Testing
A lecture and laboratory course on psychometrics. Test development and evaluation will be the focus of student projects. The course will introduce software packages used for analyzing psychological test data.
LEARNING HOURS 120 (24L;24Lb;12G;60P)
PREREQUISITE PSYC 301/3.0

PSYC 335/3.0 Positive Psychology
Positive Psychology is the scientific study of optimal human functioning. Lectures review the history and empirical support in areas such as interpersonal relationships, and applying positive thinking. Homework assignments will include experiential exercises designed to foster an increased understanding of the role of positive psychology in everyday life.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux.
Learning Hours may vary.
PREREQUISITE PSYC 203/3.0 and (PSYC 235/6.0 or PSYC 236/3.0).

PSYC 336/3.0 Advanced Adult Clinical Psychology
The purpose of this course is to provide students with an advanced understanding of theories of the etiology, pathology, and treatment of mental illness in adults. Theory and research will be emphasized that cut across traditional diagnostic categories and focus on domains of social, cognitive-affective, and biological functioning.
LEARNING HOURS 120(36L;18G;36I;36P)
PREREQUISITE PSYC 235/6.0 or PSYC 236/3.0.
EXCLUSION(S) PSYC 399/3.0 Topic: Psychopathology

PSYC 337/3.0 Advanced Child Clinical Psychology
The purpose of this course to provide students with an advanced understanding of child and adolescent psychopathology with an emphasis on developmental considerations. Students will learn about different theoretical perspectives on the etiology, pathology, and treatment of a variety of child and adolescent mental disorders.
LEARNING HOURS 130(36L;10O;84P)
PREREQUISITE PSYC 235/6.0 or PSYC 236/3.0.
EXCLUSION(S) PSYC 399/3.0 Topic: Advanced Child Psychology

PSYC 340/3.0 Selected Topics in Social Psychology
Upper year courses related to the discipline of Social Psychology. Offered periodically.
LEARNING HOURS may vary
PREREQUISITE PSYC 241/3.0.

PSYC 341/3.0 Laboratory in Social Psychology
This course aims to provide students with hands-on experience in social psychology research. Students will learn principles of research methods in social psychology, involving literature review, research designs, data collection/management/analysis, and report.
LEARNING HOURS 120 (18L;18Lb;12Oc;72P)
PREREQUISITE PSYC 203/3.0 and PSYC 241/3.0.
EXCLUSION(S) PSYC 399/3.0 (2017)

PSYC 342/3.0 The Psychology of Social Influence
This course reviews theory and research on the processes by which people exert influence on one another's behaviours, beliefs, emotions, and attitudes. Topics of study include conformity, compliance, obedience, and persuasion. The course will focus on both the theoretical and applied implications of social influence research.
NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE PSYC 100/6.0.

PSYC 343/3.0 Judgement and Decision Making
This course is focused upon research in judgment and decision-making such as biases due to anchoring, relativity, intuition, and social norms. Assignments will apply topics to students' everyday lives, help students be aware of common reasoning errors, and improve students' ability to predict and influence the behavior of others.
LEARNING HOURS 120(36L;84P)
PREREQUISITE PSYC 241/3.0.
EXCLUSION(S) PSYC 399/3.0 Topic: Judgement and Decision Making

PSYC 350/3.0 Selected Topics in Developmental Psychology
Lecture courses on selected topics in the area of developmental psychology offered periodically.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PSYC 203/3.0 and PSYC 251/3.0.
EXCLUSION(S) PSYC 353/3.0 (Topic: Atypical Development); *PSYC 457/3.0*.

PSYC 351/3.0 Social and Emotional Development
An overview of the development of emotions and their regulation. Topics range from basic emotions in infancy and interactions with caregivers that lay the foundations of socialized behaviour to the emotional upheaval and radical social changes of adolescence. Individual differences in social and emotional behaviour will be considered in light of both typical and atypical development.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE PSYC 251/3.0.

PSYC 352/3.0 Cognitive and Language Development
An overview of the development of cognitive and language processes in children. Topics include a discussion of the biological and social foundations of cognitive and language development, perceptual development, early communication, development of concepts and scripts, and improvements in reasoning and problem-solving ability over the course of development.
PREREQUISTE (PSYC 203/3.0 and PSYC 251/3.0) or (level 3 and [registration in a COGS or LING Plan] and PSYC 100/6.0 with a grade of B-).

PSYC 353/3.0 Atypical Development
This course will begin by defining atypical development and discuss how gaining better understanding of atypical development allows us to understand typical development, and vice versa. We will cover six disorders in greater detail: Language Disorders, Dyslexia, Down Syndrome, Williams Syndrome, Attention-Deficit/Hyperactivity Disorder and Autism.
LEARNING HOURS 127 (36L;91P)
EQUIVALENCY *PSYC 457/3.0*.
PREREQUISTE PSYC 251/3.0 and one of (BMED 270/3.0, HLTH 252/3.0, PSYC 203/3.0, SOCY 210/3.0).
EXCLUSION(S) PSYC 350/3.0 (2015-16; 2016-17)

PSYC 355/3.0 Comparative Cognition: Cognitive Origins Laboratory
Advanced study in comparative cognition with a focus on the evolution and function of cognitive processes across animal species. Through lectures, laboratory activities, and readings, theory and research methodology in the areas of number, timing, casual reasoning, social learning, tool use, social cognition, and communication will be discussed.
LEARNING HOURS 120 (18L;18Lb;12O;72P)
PREREQUISITE [PSYC 203/3.0 and (PSYC 205/3.0 taken in Fall 2015 or onward) or (Level and registration in a BCHM, BIOL, or LISC Plan)].

PSYC 360/3.0 The Neurobiology and Psychology of Sleep
The course will introduce students to: the physiology and neurobiology of sleep; methodology of sleep research; evolution and comparative aspects of sleep; discussion of potential functions of sleep; overview of sleep disorders.
NOTE Students will spend two full nights in the Sleep Laboratory.
LEARNING HOURS 126 (18L;36Lb;12O:60P)
PREREQUISITE PSYC 203/3.0 and PSYC 271/3.0.

PSYC 365/3.0 Selected Topics in Behavioral Neuroscience
Upper year courses related to the discipline of behavioral neuroscience. Offered periodically.
LEARNING HOURS may vary
PREREQUISITE PSYC 271/3.0

PSYC 370/3.0 Brain and Behaviour II
The relationship between brain and behaviour. The first part of the course examines topics relevant to brain plasticity, including neurodevelopment, brain damage and learning and memory; followed by a section on the biopsychology of motivation that covers the neural mechanisms of eating, sexual behaviour and sleep. The final section deals with disorders of cognition and emotion, including drug addiction, stress and psychiatric disorders.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION PSYC 100/6.0.
PREREQUISITE PSYC 271/3.0 or (Level 3 and registration in a BIOL or LISC Plan).

PSYC 375/3.0 Comparative Cognition: Animal Learning Laboratory
This course covers recent research in comparative cognition at an advanced level. Emphasis will be placed on critically evaluating scientific controversies in specific topics, such as episodic memory in animals, mechanisms of spatial navigation, and value-based decision-making. Laboratory sessions will explore the principles discussed in lectures.
LEARNING HOURS 126 (18L;18Lb;12O;78P)
PREREQUISITE [PSYC 203/3.0 and (PSYC 205/3.0 if taken in Fall 2015 or onward)] or (Level 3 and registration in a BCHM, BIOL, or LISC Plan).

PSYC 376/3.0 Functional Neuroimaging the Human Brain and Mind
Brain imaging, and functional magnetic resonance imaging (fMRI) in particular, has become a revolutionary tool in the study of human brain function and organization. This course will cover brain imaging technology, current tools and techniques for analysis, and highlight the key role that fMRI has played in the field of cognitive neuroscience.
LEARNING HOURS 112/5(33L;15G;16/5O;15Oc;33P)
PREREQUISITE Students must be in good-standing in the 3rd or 4th year of Psychology or Life Science.
EXCLUSION(S) PSYC 398/3.0 Topic: Functional Neuroimaging

PSYC 380/3.0 Advanced Perception
This advanced course in visual and auditory perception will integrate findings from neuroanatomy and physiology with psychophysics, perception, and behavior. Information processing will be traced from sensory structures through to motor output and communicative behaviour. The course will introduce you to psychophysical and neurophysical methodology and will contain many demonstrations and hands-on experiments.
PREREQUISITE PSYC 203/3.0 and *PSYC 215/3.0*.

PSYC 397/3.0 History of Modern Psychology
A survey of the history of modern psychology, from the early 19th century to the close of the 20th. The more important empirical findings of psychology and related disciplines will be examined together with their theoretical explanations. The course will lead to an examination of the causes of differential scientific progress in the various subfields of psychology.
NOTE Also offered online. Consult Arts and Science Online.
NOTE Also offered at the Bader International Study Centre, Herstmonceux.
PREREQUISITE PSYC 100/6.0.

PSYC 398/3.0 Selected Topics in Psychology I
Lecture courses on selected topics in psychology offered periodically.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.
EXCLUSION(S) ECON 443/3.0 (Topic: Behavioural Neuroeconomics) and PSYC 398/3.0 (Topic: Behavioural Neuroeconomics).

PSYC 399/3.0 Selected Topics in Psychology II
Lecture courses on selected topics in psychology offered periodically.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.

PSYC 400/6.0 Applied Research in Higher Education
An introduction to the scholarship and practice of teaching including what it means to be a scholarly teacher, how pedagogy research informs educational practice, and how people learn complex information. In addition to readings, critiques and facilitated discussions, a practicum component will include facilitating weekly tutorials.
NOTE Students must complete an application and be invited for an interview in the spring to be eligible for this fall term course. During the fall term, students will be responsible for facilitating 2-3 PSYC 100 tutorials per week as part of their teaching practicum.
LEARNING HOURS 221 (24S;24G;78Pc;20O;75P)
PREREQUISITE Level 3 or above in a PSYC Major, Medial, or Specialization Plan and a GPA of 3.30 in PSYC.

PSYC 420/3.0 Advanced Topics in Cognitive Psychology
An examination of selected topics in cognitive psychology which may include: computational modelling; problem-solving; face recognition; gestalt influences on cognitive science; motor control processes; cognitive neuropsychology. Exact topics to vary by year.
PREREQUISITE PSYC 221/3.0 or *PSYC 220/6.0* or *COGS 200/6.0*.

PSYC 422/3.0 Selected Topics in Attention
Addresses topics in attentional control including limits in attentional control, cortical mechanisms of attention, spatial and temporal attention, interaction of attention and memory, and influence of videogame playing on attentional control.
PREREQUISITE PSYC 221/3.0 or *PSYC 220/6.0* or *COGS 200/6.0*.

PSYC 423/3.0 Selected Topics in Real-World Scene Perception
A discussion of some areas in natural scene perception. Topics that will be discussed include: speeded processing of scene gist, the neural basis of scene perception, attention and eye movements, visual search and memory in real-world contexts, as well as some discussion of other more applied research related to the processing of real-world scenes.
PREREQUISITE PSYC 221/3.0 or *PSYC 220/6.0* or *COGS 200/6.0*.

PSYC 428/3.0 Psychotic Disorders
This seminar will provide students with an in-depth understanding of research in psychotic disorders such as schizophrenia and severe mood disorders. Topics will include neurocognitive dysfunction and its relationship to disability, pharmacological and psychological treatment, and assessment of symptoms across the lifespan.
LEARNING HOURS 120(36S;84P)
PREREQUISITE PSYC 235/6.0 or PSYC 236/3.0.
EXCLUSION(S) PSYC435/3.0 Topic: Psychotic Disorders

PSYC 429/3.0 Pain: Body and Mind
Pain is easy to recognize, but enormously challenging to define, describe and treat. This interactive and interdisciplinary course approaches the challenge of pain from the perspectives of philosophy, neuroscience and clinical psychology. We will examine what pain is, how we measure and treat it, and how it is instantiated in the body and brain.
LEARNING HOURS 123(12L;18S;9G;84P)
PREREQUISITE PSYC 203/3.0 and PSYC 271/3.0.
EXCLUSION(S) PSYC 480/3.0 Topic: Pain: Body and Mind

PSYC 430/3.0 The Self
This course reviews theory and research on the self, primarily from a social psychological perspective. Topics include: the nature of the self, search for self-knowledge, self-development, self-cognition, self-regulation of behaviour, self-presentation, self-esteem, and the role of the self in psychological health.
PREREQUISITE PSYC 203/3.0 and PSYC 241/3.0.

PSYC 433/3.0 Human Sexual Function and Dysfunction
This course will provide students with an overview of common sexual dysfunctions, including prevalence, clinical presentation, and comorbid diagnoses. Particular attention will be paid to assessment and treatment (both therapy and medical management) in sexual dysfunction; in addition, past and current research strategies will be presented and critiqued, with an emphasis on classification difficulties.
PREREQUISITE PSYC 203/3.0 and (PSYC 235/6.0 or PSYC 236/3.0 or PSYC 333/3.0).

PSYC 435/3.0 Advanced Topics in Clinical Psychology
Recent developments in the experimental investigation of such abnormal behaviours as anxiety, depression, thought and memory disorders, etc.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.

PSYC 436/3.0 Sexuality and Gender
This course provides an overview of the main theoretical perspectives on gender differences and similarities in sexuality, and examines how differences and similarities manifest in multiple domains, including sexual attitudes and behaviours, sexual motivation, mating strategies, sexual orientation, sexual psychophysiology, atypical sexuality, and sexual functioning.
LEARNING HOURS 126 (12L;24S;90P)
PREREQUISITE PSYC 203/3.0 and (PSYC 235/6.0 or PSYC 236/3.0 or PSYC 333/3.0 or BIOL 369/3.0)

PSYC 437/3.0 Mood Disorders
An intensive study of the state of research and controversies in the area of mood disorders. Specific topics covered will include bio-genetic, cognitive, interpersonal, and stress theories of etiology, as well as state-of-the-art advances in treatment.
LEARNING HOURS 120 (18L;18S;84P)
PREREQUISITE PSYC 203/3.0 and (PSYC 235/6.0 or PSYC 236/3.0).

PSYC 438/3.0 Self-injury and Suicide
Why do people intentionally hurt themselves? In this course, students will develop an advanced scientific understanding of suicide and non-suicidal self-injury. We will focus on: (a) definition, phenomenology, assessment, and epidemiology; (b) modern theories; (c) transdiagnostic risk factors; and (d) intervention, prevention, and postvention.
LEARNING HOURS 120(6L18S;9G;6O,6Oc;75P)
PREREQUISITE PSYC 203/3.0 and PSYC236/3.0
EXCLUSION PSYC 480/3.0 (Topic: Self-Injury and Suicide)

PSYC 440/3.0 Advanced Topics in Social Psychology
A discussion of some areas and issues in social psychology emphasizing techniques and methods of social psychological research. Substantive topics may include attitudes and attitude change, psychology of women, conformity and deviance, etc.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.

PSYC 441/3.0 Attitudes and Persuasion
This course provides an overview of classic and contemporary theories of attitudes and persuasion. Topics include the structure of attitudes, the role of attitudes in information processing, the impact of attitudes on behaviour, and the psychological processes underlying attitude change. A particular emphasis is placed on reviewing and evaluating theories of persuasion.
LEARNING HOURS 120 (24L;12S;84P)
PREREQUISITE PSYC 203/3.0 and PSYC 241/3.0.

PSYC 442/3.0 Culture and Cognition
This course will examine a wide range of social cognitive topics (e.g., reasoning, decision making, attribution, language, self-concept, cognitive styles, emotion, relationship and subjective well-being) from a cultural perspective by drawing on a wide range of cross-cultural studies.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 114 (12L;24S;78P)
PREREQUISITE PSYC 203/3.0 and PSYC 241/3.0.

PSYC 443/3.0 Intimate Relationships
Classic and contemporary research pertaining to adult romantic relationships. Topics include attachment styles, relationship development, communication, and conflict in relationships.
LEARNING HOURS 126 (18L;18S;90P)
PREREQUISITE PSYC 203/3.0 and PSYC 241/3.0.

PSYC 450/3.0 Advanced Topics in Developmental Psychology
Topics vary from year to year and may include prenatal factors in development, infancy, aging, adolescence, cultural deprivation and intervention programs in early childhood, and developmental psychopathology.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.
LEARNING HOURS 128 (18L;18S;25G;15O;52P)

PSYC 451/3.0 Brain Development
This course is designed to be a relatively broad discussion of brain development, with a particular focus on issues such as development course, measurement, brain functioning, plasticity, and atypicality.
LEARNING HOURS 120(36S;84Oc)
PREREQUISITE PSYC 251/3.0 and PSYC 271/3.0.
EXCLUSION(S) PSYC 450/3.0 Topic: Developmental Psychology

PSYC 452/3.0 Developmental Psycholinguistics
This seminar focuses on the human ability to produce and comprehend language and its development. Using original empirical articles the participants in the seminar will examine topics like syntactic and lexical disambiguation, structural priming, the development of reading, and cultural variability in language ability.
PREREQUISITE (PSYC 203/3.0 and 12.0 units in PSYC at the 200 level or above) or (level 3 and [registration in a LING or COGS Plan] and a grade of B- in PSYC 100/6.0).

PSYC 453/3.0 Infancy
This seminar examines social and cognitive development during the first two years of life. Topics include the early differentiation between animate and inanimate entities, goal attribution, imitation, and prosocial behaviour.
PREREQUISITE PSYC 203/3.0 and PSYC 251/3.0.

PSYC 454/3.0 Child in Society
The seminar focuses on the development of children's ability to navigate the social world. How do children understand social structures and processes? What determines their place in these structures? Topics will vary, e.g., the cognitive representation of social structures, modeling of social dynamics, cultural learning, essentialism, cooperation.
LEARNING HOURS 120(36S;12G;12O;60P)
PREREQUISITE PSYC 203/3.0 and PSYC 251/3.0.
EXCLUSION(S) PSYC480/3.0 Topic: Child in Society

PSYC 455/3.0 Adolescence
This seminar will explore psychological development from the transition out of childhood to the transition into adulthood. The content of the course will cover typical and atypical adolescent development within several domains: cognitive, social, emotional, neurological and physical. Readings will focus on both basic developmental theory and applied research.
PREREQUISITE PSYC 203/3.0 and PSYC 251/3.0.

PSYC 456/3.0 Theory of Mind
Explores children's emerging understanding that others' observable behaviours are motivated by internal mental states such as intentions, desires and beliefs. The first section of the course will cover the development of this understanding from infancy through the preschool years. The second section of the course will cover how this emerging understanding affects children's social and communicative development.
PREREQUISITE PSYC 203/3.0 and PSYC 251/3.0.

PSYC 470/3.0 Advanced Topics in Behavioural Neuroscience
Intensive coverage of selected topics in behavioural neuroscience to include, in different years, such topics as neurobiology of learning and memory, neuroendocrinology, biological bases of motivation, biological bases of brain disorders, etc.
PREREQUISITE PSYC 205/3.0 and PSYC 271/3.0 and PSYC 370/3.0.

PSYC 471/3.0 Behavioural Pharmacology
The neuropharmacological basis of psychological processes. Topics to be covered include drug actions on neurochemical systems, psychoactive effects of drugs and the neuropharmacological basis of psychiatric disorders.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 3 and (PSYC 205/3.0 or [PSYC 271/3.0 and PSYC 370/3.0).

PSYC 473/3.0 Neurobiology of Psychiatric Disorders
An examination of current theories on the neurobiology of mental disorders (e.g. autism, schizophrenia, mood and anxiety disorders). Seminars will focus on the evaluation of animal models for investigating neurodevelopmental and pharmacological aspects of various psychopathologies.
RECOMMENDATION PSYC 205/3.0.
PREREQUISITE PSYC 271/3.0 and (PSYC 370/3.0).

PSYC 480/3.0 Special Topics in Psychology I
Seminar courses on advanced topics in psychology offered periodically by visiting professors.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux.
LEARNING HOURS learning hours may vary

PSYC 485/3.0 Special Topics in Psychology II
Seminar courses on advanced topics in psychology offered periodically by visiting professors.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.
LEARNING HOURS 120 (36S;84P)

PSYC 495/3.0 Advanced Topic in Psychology
Seminar and lab course on an advanced topic in psychology offered periodically by visiting professors.
NOTE Prerequisites vary depending on specific course content; consult instructor or Undergraduate Office in the Psychology Department.
LEARNING HOURS 120 (12L;24S;84P)

PSYC 501/9.0 Honours Thesis
Each student will, under supervision, formulate and present an original research proposal involving the collection and analysis of data, carry it out, and submit a thesis based on the results. Proposals must be approved by relevant Ethics Review committees. This course is optional for students completing a major in psychology but all students are advised that admission to a graduate research program in psychology normally requires the completion of an honours thesis.
NOTE Students whose research involves the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.
LEARNING HOURS 365 (9S;6T;350P)
PREREQUISITE (A grade of C+ in PSYC 302/3.0 or *PSYC 300/6.0*) and (a GPA of 2.60 in PSYC 202/3.0; PSYC 203/3.0; PSYC 301/3.0; PSYC 302/3.0) and a GPA of 3.30 in PSYC and permission of Department.

PSYC 550/3.0 Directed Special Reading I
Reading courses to be arranged in consultation with individual members of the Department.
NOTE Students are limited to a maximum of two of PSYC 550/3.0, PSYC 555/3.0, PSYC 570/3.0, or PSYC 575/3.0 Students are also limited to a maximum of two 500-level courses supervised by the same faculty member. (Students registered in PSYC 501/9.0 concurrently will not normally take one of these courses with their thesis supervisor.)
LEARNING HOURS 117 (20G;13I;84P)
PREREQUISITE Permission of the instructor and of the Chair of Undergraduate Studies and Level 3 or above and registration in a PSYC Major, Medial or Specialization Plan.

PSYC 555/3.0 Directed Special Reading II
Reading courses to be arranged in consultation with individual members of the Department.
NOTE Students are limited to a maximum of two of PSYC 550/3.0, PSYC 555/3.0, PSYC 570/3.0, or PSYC 575/3.0. Students are also limited to a maximum of two 500-level courses supervised by the same faculty member. (Students registered in PSYC 501/9.0 concurrently will not normally take one of these courses with their thesis supervisor.)
LEARNING HOURS 117 (20G;13I;84P)
PREREQUISITE Permission of the instructor and of the Chair of Undergraduate Studies and Level 3 or above and registration in a PSYC Major, Medial or Specialization Plan.

PSYC 570/3.0 Directed Special Laboratory I

Laboratory courses to be arranged in consultation with individual members of the Department. Courses must involve data collection; approximately 5-7 hours of lab work per week required.

NOTE Students whose research involves the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

NOTE Students are limited to a maximum of two of PSYC 550/3.0, PSYC 555/3.0, PSYC 570/3.0, or PSYC 575/3.0. Students are also limited to a maximum of two 500-level courses supervised by the same faculty member. (Students registered in PSYC 501/9.0 concurrently will not normally take one of these courses with their thesis supervisor.)

LEARNING HOURS 117 (78Lb;39P)

PREREQUISITE Permission of the instructor and of the Chair of Undergraduate Studies and Level 3 or above and registration in a PSYC Major, Medial or Specialization Plan.

PSYC 575/3.0 Directed Special Laboratory II

Laboratory courses to be arranged in consultation with individual members of the Department. Courses must involve data collection; approximately 5-7 hours of lab work per week required.

NOTE Students whose research involves the care and/or handling of animals must also complete the Introductory Animal Care Course and if required the appropriate Animal Use workshops through the Office of the University Veterinarian.

NOTE Students are limited to a maximum of two of PSYC 550/3.0, PSYC 555/3.0, PSYC 570/3.0, or PSYC 575/3.0. Students are also limited to a maximum of two 500-level courses supervised by the same faculty member. (Students registered in PSYC 501/9.0 concurrently will not normally take one of these courses with their thesis supervisor.)

LEARNING HOURS 117 (78Lb;39P)

PREREQUISITE Permission of the instructor and of the Chair of Undergraduate Studies and Level 3 or above and registration in a PSYC Major, Medial or Specialization Plan.

RELS 131/3.0 World Religions/Religious Worlds
Introduces religion in India, China and Japan; also the movements of Judaism, Christianity, Islam and Humanism.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 228 (48L;24T;156P)

RELS 137/6.0 Religion and Film
This course will explore how religion is portrayed in film, noting particularly the depiction of religious belief, practices, practitioners, and institutions, and the use of religious symbols and metaphors.RELS
LEARNING HOURS 126(12L24G;90P)
EQUIVALENCY *RELS 237/3.0*

RELS 140/3.0 Religion and Science
This course examines the categories of both science and religion and attempts to explore the possible relationships between them. Case studies involve: medicine and health, relationships with other animals, concepts of human nature, super/natural ontologies, and science-and-technology-based religions.
LEARNING HOURS 120(24L;12T;84P)

RELS 161/6.0 Contemporary Problems in Religion and Culture
Explores religious issues in culture, literature, politics and social ethics.
LEARNING HOURS 228 (48L;24T;156P)

RELS 162/3.0 Religion, News and Media
This course will identify and describe characteristics of religion as they appear in news reports of social, political, and economic aspects of public life and analyze how the news presents, shapes, and creates perceptions of religion in public discourse.
LEARNING HOURS 120 (24L;12T;84P)

RELS 163/3.0 Religion and Popular Culture
This course will identify and describe characteristics of religion as they appear in popular culture (e.g. fashion; comics; movies; art; music; novels; sitcoms; dramas; video games) and analyze how such depictions present, shape, and create perceptions of religion in public discourse.
LEARNING HOURS 120 (24L;12T;84P)

RELS 201/3.0 Themes in Religious Studies
A topic of current interest in Religious Studies not covered in other available courses.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100-level in RELS.

RELS 202/3.0 Traditions in Religious Studies
A topic of current interest in Religious Studies not covered in other available courses.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100-level in RELS.

RELS 210/3.0 Hebrew Bible
Introduction in the light of the political, cultural, and religious history of ancient Israel and Judah.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 212/3.0 Mythology of the Ancient Near East
Similarities and differences in the myths of ancient Egypt and Mesopotamia will be explored on the basis of material remains (e.g., the pyramids and temple architecture) and texts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 214/3.0 The New Testament
As religious literature expressing the witness to Jesus; and as source for the history, trends and problems of early Christianity.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 218/3.0 Christianity
Introduction to Christianity as a religious tradition through its texts, its history and its contemporary forms.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 221/3.0 New Religious Movements
All religions were once new, small, and unusual to the cultures around them - often therefore attracting suspicion. This course examines the practices, beliefs, and histories of several NRMs, and why some gain legitimacy while others get derided as "cults." Doing so illuminates broader processes like mythmaking, Othering, and (de)secularization.
LEARNING HOURS 126 (24L;12G;6O;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 222/3.0 The Hindu World
Developments through 3,000 years of Indian history; the *Upanishads*, the *Bhagavad Gita*, Yoga and Vedanta, mythology of Vishnu and Shiva, and recent Hindu thinkers (e.g., Tagore, Aurobindo).
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 223/3.0 Buddhism
Buddhism in India, the life and teaching of Gautama the Buddha, and the growth of the Theravadin and Mahayanist traditions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 224/3.0 Taoism
The philosophy, worldview, spirituality and ethics of Taoism, China's organized indigenous religion, in Chinese history and in the contemporary world.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 226/3.0 Islam
Historical and topical survey of Islam, its development through the study of its rise, institutionalization of its beliefs and practices, formation of its theology, law, mysticism; as well as its modern interpretations and practices.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 227/3.0 Indigenous Traditions in North America
Introduction to the study of Indigenous traditions in North America.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 228/3.0 Sages, Scholars and Rabbis
The religious institutions produced by the Jews from the second to the seventh centuries. This course will explore in critical fashion the principal areas of rabbinic activity including: topics on jurisprudence, philosophy, social and political thinking, the role of tradition and scriptures.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 229/3.0 Confucianism
The philosophy, worldview, spirituality and ethics of Confucianism in its classical, modern and contemporary forms.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 232/3.0 Religion and Social Movements
This course will examine the field of social movement studies, with a particular focus on how religion has played a role in the rise of social movements, how religious communities have been influenced by social movements, and how mobilization and activism around social justice issues is colouored by religion and culture.
LEARNING HOURS 120 (36L;9G;75P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 234/3.0 Judaism
An introduction to the self-definition of Judaism through an analysis of the concepts of God, Torah and Israel past and present. Also, a preliminary study of the struggles facing Jews in Europe, the State of Israel and North America.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 235/3.0 Religion and Environment
Examines how religious traditions shape human values and behaviours towards the environment and how environmental problems are shaping the evolution of religious and spiritual traditions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 236/3.0 Religion and Sex
Views of and attitudes toward sexuality in selected world religions; the place of sexuality in religious traditions; relationship between sex and the sacred; specific topics such as marriage, gay and lesbian issues, contraception will be chosen.
LEARNING HOURS 126 (36L;12G;6O;72P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 239/3.0 Religion and Sport
This course will provide an overview of the relatively new and expanding body of research that examines the relationship between sport, spirituality and religion. Topics including play, games, flow, ritual, prayer, sports stars as role models, doping, fandom and miracles in sport will be explored.
LEARNING HOURS 129 (36L;93P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 240/3.0 Magic, Witchcraft, and the Supernatural
Studies the differences between the categories of religion, magic, witchcraft, the supernatural, etc., as constructed in scholarship, popular culture, and practice. Focuses on examples such as New Religious Movements, depictions of magic in film and TV, and moral panics over alleged occult practices, and the histories that let us make sense of them.
LEARNING HOURS 120 (24L;6G;12O;78P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 250/3.0 Mythology of Heroes, Heroines and Saints
Their place in religious consciousness with a variety of examples.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 252/3.0 Mysticism
The academic study of mysticism; mystical movements; and mystics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 255/3.0 Research Methods in Religious Studies
An investigation into the techniques of critical reading and writing for research in Religious Studies.
LEARNING HOURS 120 (36S;84P)
EQUIVALENCY *RELS 355/3.0*.
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 266/3.0 Religion and Social Ethics
Moral problems and religious responses: e.g., sexual morality; violence; civil disobedience.
LEARNING HOURS 120 (36L;84P)

PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 296/3.0 Islam in Canada
This course examines the historical and contemporary expressions of Islam in Canada. Starting from early Muslim migrants to Canada to current issues of media representations, Islamophobia, and gender and sexuality, as they are unfolding in Canadian contexts for Muslims
LEARNING HOURS 138 (18L;18S; 12G;90P)
PREREQUISITE Level 2 or above or 6.0 units at the 100 level in RELS.

RELS 301/3.0 Themes in Religious Studies
A topic of current interest in Religious Studies not covered in other available courses.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 302/3.0 Traditions in Religious Studies
A topic of current interest in Religious Studies not covered in other available courses.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 312/3.0 Christian Feminist Theology
Issues raised by the feminist critique of traditional Christian theology and feminist attempts at theological reconstruction.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 321/3.0 Greek and Roman Religions
A study of the development and organization of non-civic religious associations in the Greek and Roman empires using inscriptions, papyri, and literary texts. Insight into religious practices of the Greco-Roman period comes through exploration of groups organized by deity, cult, occupation, or ethnic identity, and the so-called mystery religions.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 322/3.0 Yoga in India and the West
Surveys the history and philosophy of yoga in India and the West.
NOTE Yoga practicum: estimated cost $85.
LEARNING HOURS 128 (36L;8Oc;84P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 326/3.0 Religion and Politics in Muslim Societies
Explores the role of religion in the politics of Muslim societies with particular attention to the modern period.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 328/3.0 Interpretation of Apocalyptic Literature
The primary focus of the course will be the theological perspectives and social functions of apocalyptic in select religious traditions. The course will also survey the appropriation of apocalyptic themes throughout history in artistic forms such as art, fiction, and film, with particular attention to our modern times and cultures.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 331/3.0 Religion and Violence
Links between violence and religious beliefs, practices and institutions; for example, sacrifice, holy wars, scapegoating, and suicide.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 332/3.0 Race, Ethnicity, and Religion
The course will explore the intersection of race, ethnicity, and religion, alongside gender, sexuality, culture and more. It will challenge students to think about how racial identities, theories, and movements implicate(d) the way religious communities construct their own systems and worldviews.
LEARNING HOURS 128 (18L;18S;12G;80P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 334/3.0 Jewish Views of the Other
A study of the tensions that come into play as Jews formulated views of the Other to balance co-existence with them. Source materials include authoritative writings of Jewish commentary and law and social scientific views of them.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 340/3.0 Religion and Democracy
Deals with the role of religion in the public sphere and its relation to liberal democracy. It examines the (in)compatibility of some tenets of certain religions with modern democratic principles.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 341/3.0 Spirituality, Secularity, and Nonreligion
A study of concepts intended to summarize positions which are necessarily defined in reference to religion but considered to be other than religious. We explore the origins and presents of perspectives and experiences including the secular, spiritual-but-not-religious, atheistic, and other forms of imitation, indifference, and hostility to religion.
LEARNING HOURS 126 (24L;6G;12O;84P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 345/3.0 Religion and Art
An examination of discursive, historiographical, and affective aspects of a variety of historical and contemporary artistic expressions (e.g., painting, sculpture, video) through the lens of Religious Studies.
NOTE Field trip: estimated cost $38.
LEARNING HOURS 126 (12L;24G;90P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 354/3.0 Theory in Religious Studies
An introduction to major theoretical approaches to the study of religion.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 and 6.0 units at the 200 level in RELS.
EXCLUSION(S) *RELS 353/6.0*

RELS 367/3.0 Religion and Biomedical Ethics
The aim of this course is to provide an overview of some ethical issues that arise at the intersection of biomedicine and religion. These ethical issues include moral distress, consent, beginning of life issues, indigeneity and healing, medically assisted death, gene editing, and anti-aging interventions.
LEARNING HOURS 120(18L18S;84P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS
EQUIVALENCY *RELS 268/3.0*

RELS 368/3.0 Religion and Business Ethics
Students will develop background knowledge and analytic skills necessary to identify and negotiate religious commitments in business relationships and resolve ethical issues around the role of religion in business contexts. We will analyze case studies to explore various ways in which business practitioners can and do address questions arising in everyday interactions in the business world.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 385/3.0 Religious Fundamentalisms
Religious fundamentalism is a modern phenomenon not exclusive to any religion. In the past few decades, religious fundamentalist movements have been shaping new social,cultural and political norms in a predominately secular age. The course explores theoretical aspects and examines specific case studies across various religions and cultures.
LEARNING HOURS 126 (36L;20O;70P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 393/3.0 Buddhism in the Modern World
Encounter between Buddhism and the West, major movements and thinkers, and socio-politically engaged Buddhism.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 394/3.0 Religion and Politics in Contemporary China
Examines Chinese and foreign religions in mainland China from 1949 to the present day. Topics include the status of established religions, the political control of new religious movements and the resurgence of traditional Chinese religions and ideologies including Daoism and Confucianism.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 396/3.0 Islam in the Modern World
Exploration of Islamic developments since the 19th century: major thinkers, trends of thought, and contemporary movements as responses to modernity.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 398/3.0 Judaism in the Modern Age
The development of modern Jewish thought and practice, including the Reform, Orthodox, Conservative and Reconstructionist movements. The consequences of the Holocaust and the establishment of the modern State of Israel.
LEARNING HOURS 132 (36L;96P)
PREREQUISITE Level 3 or above or 6.0 units at the 100 level in RELS.

RELS 401/3.0 Honours Seminar
Advanced seminar providing detailed reading of one contemporary theme or thinker in religious studies.
LEARNING HOURS 120 (6L;30S;12O;72P)
PREREQUISITE Level 4 and registration in a RELS Major or Medial Plan and a GPA of 2.6 in 24.0 units in RELS.
COREQUISITE [RELS 354/3.0 and (RELS 255/3.0 or *RELS 355/3.0*)] or *RELS 353/6.0*.

RELS 452/3.0 The Contemporary Religious Situation
Religion in modernity; traditional groups, newer religious movements, contemporary ideologies and social trends of religious significance.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE Level 3 or 4 and registration in a RELS Major or Medial Plan.
COREQUISITE [RELS 354/3.0 and (RELS 255/3.0 or *RELS 355/3.0*)] or *RELS 353/6.0*.
EXCLUSION(S) *RELS 451/6.0*

RELS 501/3.0 Directed Special Studies I
Reading courses on topics not covered in other available courses, arranged with individual members of the Department.
LEARNING HOURS 120 (12I;108P)
PREREQUISITE Level 4 and registration in the RELS Major Plan and permission of the Department.

RELS 502/3.0 Directed Special Studies II
Reading courses on topics not covered in other available courses, arranged with individual members of the Department. RELS 502/3.0 may be taken independently or as a continuation of RELS 501/3.0.
PREREQUISITE Level 4 and registration in the RELS Major Plan and permission of the Department.

REPD 372/3.0 Reproduction and Development
Students will obtain a general background on various aspects of human reproduction, ranging from male and female gamete development to pregnancy and birth. The course will serve as a gateway to more advanced courses in human reproduction and development.
NOTE Only offered online. Consult the Bachelor of Health Sciences program.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Minimum of 3rd year (Level 3)standing, one of (ANAT 100/3.0; ANAT 101/3.0;[ANAT 215/3.0 and ANAT 216/3.0];(ANAT 315/3.0 and ANAT 316/3.0]; [PHGY 215/3.0 and PHGY 216/3.0]).]
EQUIVALENCY *BMED 372/3.0*.

REPD 387/3.0 Sexual Dimorphism in Reproductive Pathologies
This course will be focus on, 1. Common and rare reproductive pathologies with sex and gender associated susceptibilities and disease outcomes. 2. Role of sexual dimorphism in etiology, pathogenesis and immune responses of reproductive diseases. 3. Conventional and advanced tools in diagnosis and treatment of reproductive diseases.
LEARNING HOURS 120 (24L;12S; 36G;48P)
PREREQUISITE Level 3 and (registration in a LISC/BCHM Major or Specialization Plan or BHSc program) and (a GPA of 2.5) and one of (MICR 270/3.0; MICR 360/3.0; BMED 386/3.0) and BCHM 218/3.0.

REPD 416/3.0 Biology of Reproduction
Comprehensive overview of cellular and molecular biology of mammalian reproduction including gametogenesis, fertilization, early embryo development and placentation; selected topics of clinical aspects of reproduction. Participation in seminars and group discussion is required.
LEARNING HOURS 120 (36L;36S;48P)
PREREQUISITE Level 4 and (registration in a LISC Major or Specialization Plan) and (a GPA of 2.7) and [(ANAT 215/3.0 and ANAT 216/3.0) or ANAT 309/3.0].
EQUIVALENCY *ANAT 416/3.0*.

REPD 473/3.0 Developmental Origins of Health and Disease
This course will cover how the early-life environment contributes to later-life health. Specifically, students will learn about how prenatal, neonatal, and early childhood exposures and environments contribute to health and disease later in life, including the development of numerous non- communicable diseases affecting numerous organ systems.
NOTE Only offered online. Consult the Bachelor of Health Sciences Program.
LEARNING HOURS 120 (60O;60P)
PREREQUISITE Minimum 4th yea r(Level 4) standing and one of (REPD 372/3.0; BMED 372/3.0) and one of (PHAR 230/3.0; *PHAR 270/3.0*; PHAR 340/3.0; PHAR 370/3.0; PHAR 380/3.0). For Life Science Honours students Level 4 and registration in a LISC Major or Specialization Plan and a GPA of 2.5.
EQUIVALENCY *BMED 473/3.0*.

REPD 499/12.0 Research Project in Reproduction and Development
An examination of the development and present state of knowledge in selected research areas of reproduction and development. Research project involves experimental design, data collection and analysis written report, poster presentation and oral presentation. Students will be required to attend seminars and tutorials on topics related to research.
LEARNING HOURS 480 (24L;48S;192Lb;168P)
PREREQUISITE Level 4 and registration in a LISC Specialization Plan and a GPA of 2.50.
EXCLUSION(S) ANAT 499/12.0; CANC 499/12.0; EPID 499/12.0; MICR 499/12.0; NSCI 499/12.0; PATH 499/12.0; PHAR 499/12.0; PHGY 499/12.0

SOCY 122/6.0 Introduction to Sociology
An introduction to the concepts, theories and methods of sociological enquiry, and their application to the analysis of Canadian society.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 240 (48L;24G;24O;144P)

SOCY 200/3.0 Sociology of Health and Illness
This course explores the sociological dimensions affecting the meaning and experience of health and illness in contemporary society. Topics include policy, professionalization, medicalization, mental health, inequalities, bioethics, and globalization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0) or HLTH 101/3.0.

SOCY 210/3.0 Social Research Methods
Examination of relationship between sociological theory and methods of social research; topics include logic of research, hypothesis formulation, and variables and their operationalization.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) BMED 270/3.0; GPHY 240/3.0

SOCY 211/3.0 Introduction to Statistics
Introduces descriptive and inferential statistics and data analysis strategies. Topics include probability, correlation/regression, experimental design and analysis of variance. Online learning and weekly laboratories provide practice in computation, interpretation and communication of statistical findings, and large class review sessions and individual drop in assistance ensure mastery. Applications appropriate to different fields of study will be explored.
NOTE Students can also fulfill the statistics requirements of a SOCY plan by taking any one of the courses listed as exclusions below in place of SOCY 211/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; COMM 162/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0 (formerly *PHED 251/3.0*); NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0

SOCY 225/3.0 Sociology of Globalization
An introduction to recent sociological debates on the emergence of a global economy and society, and its impact on different parts of the world.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 226/3.0 Central Concepts in Sociological Theory
A discussion of the central concepts in sociological theory, for example, agency and structure; rationality, reason, and abstraction; social continuity and social change; subjectivity and selfhood; language and interpretation are normally considered.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 227/3.0 Theorizing Contemporary Society
A discussion of theoretical frameworks for understanding contemporary societies. The course will normally cover capitalism and economy; globalization and post-colonialism; identity, politics, and social movements; science, technology, and environmentalism; consumerism and urban life.
LEARNING HOURS 120 (24L;12T;84P)
PREREQUISITE SOCY 226/3.0.

SOCY 235/3.0 Race and Racialization
Concept and meaning of race, racism, and racialization; ethnicity; processes, policies, and practices of differentiation; the impact of racism and discrimination on various populations; intersections of race, ethnicity, class and gender.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 273/3.0 Social Psychology
The social matrix of personality, socialization as a social process, the influence of social structure and culture upon socialization practices, and the patterning of personality through the life cycle.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 275/3.0 Theories of Deviance and Social Control
This course focuses on the theoretical foundation examining the process by which activities are defined as deviant: such activities as 'sexual deviance', 'mental illness', and 'political deviance'. The major etiological approaches to the study of deviants are also considered.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) *SOCY 274/6.0*

SOCY 276/3.0 Substantive Issues in Social Deviance
This course examines a variety of substantive topics in the sociology of deviance. The choice of topics will illustrate the range of theoretical approaches discussed in SOCY 275/3.0. The selection of topics will vary from semester to semester but will typically include violence, corporate crime, sexual deviance, and physical stigma.
LEARNING HOURS 120 (36L;84P)
COREQUISITE SOCY 275/3.0.
EXCLUSION(S) *SOCY 274/6.0*

SOCY 284/3.0 Sociology of Information and Communication Technology
Social context and consequences of information and communication technologies as they relate to work, culture, privacy and education.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 300/3.0 Sociology of Cities
More than 50% of the world's population now lives in cities and most of the biggest sociological issues are urban in location and character. Understanding cities is therefore crucial to understanding contemporary societies. This course is an intensive introduction to Urban Sociology with particular emphasis on world cities.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) SOCY 301/3.0-001 (2009-2015)

SOCY 301/3.0 Selected Topics in Sociology
Explores a range of issues in contemporary sociology. Topics may vary from year to year. See the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 302/3.0 Selected Topics in Socio-legal Studies
Explores a range of contemporary issues in socio-legal studies. Topics may vary from year to year. See the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 303/3.0 Selected Topics in Feminist Sociology
Explores a range of contemporary issues in feminist sociology. Topics may vary from year to year. See the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 304/3.0 Selected Topics in Communications and Information Technology
Explores a range of contemporary issues in communications and information technology. Topics may vary from year to year. See the departmental website for further details.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 305/3.0 Sociology of Professions and Occupations
This course examines theories and empirical studies on professions and occupations. This course examines historical change, social structure, market competition, career advancement, workplace interaction and culture, job satisfaction, demographic diversity and social service, from the late nineteenth century to the age of globalization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) SOCY 303/3.0 (2016-17)

SOCY 306/3.0 Consumer Culture
A comprehensive introduction to the major theories and empirical studies of consumer culture with emphasis upon the historical, socioeconomic, and cultural aspects of consumption in sociological context; substantive focus upon diverse topics such as food, tourism, the home, children, and marketing.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 309/3.0 Surveillance and Society
Provides a critical introduction to surveillance and the emerging interdisciplinary field of Surveillance Studies. Offers an historically-grounded, theoretically-informed, and empirically-illustrated survey of the practices, technologies and social relations of surveillance from different perspectives, with an emphasis on the socio-political dimensions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 310/3.0 Visual Culture
A lecture-format course devoted to the sociological understanding of visual culture in contemporary society. The course integrates the critical development of key social theories of visuality from Descartes to Baudrillard and beyond. It addresses the sociological significance of visual culture in terms of ideology, hegemony and visual discourse.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).
EXCLUSION(S) SOCY 302/3.0-001

SOCY 321/3.0 Research Methodology
Evaluation and use of quantitative/qualitative research methodologies as a means of exploring the validity of sociological theories.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A minimum grade of C in each of SOCY 210/3.0 and SOCY 211/3.0 and (SOCY 226/3.0 and SOCY 227/3.0).

SOCY 336/3.0 The Sociology of Work and Technology
The course examines the meaning of work and the changes taking place in the workworld, with special attention devoted to new technology, gender, unionism and globalization.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 344/3.0 Power and Change in Canada
Critical study of Canada's socio-economic structures and processes: topics include dynamics of capitalist development, global restructuring, labour force transformations.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 352/3.0 Family Diversity
This course introduces students to the sociology of family diversity. Topics normally considered include diversity of family forms; social constructions of motherhood and fatherhood; contested understandings of families; and how contemporary debates about gender differences, sexualities, and racialization may inform the understanding of intimate and familial relations.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 354/3.0 Sociology of Education
Comparative study of Canadian education system and processes in light of current sociological theory and research.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 362/3.0 Cultural Studies
This course focuses on contemporary sociological perspectives of culture. It includes a survey of various theoretical positions vis à vis culture and society such as the high and low culture distinction, the rise of mass culture; cultural hegemony; populism and social resistance. Canadian culture is the predominant object of analysis.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 363/3.0 Science, Technology and Society
Critical examination of science in modern society; particular reference to historical development, transmission of scientific knowledge, conduct of enquiry, and interdependence with other institutions.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0).

SOCY 384/3.0 Women and Reproductive Technology
Critical study of historical development of scientific and medical establishments with specific focus upon women; legal, ethical, and economic issues related to new reproductive technologies examined.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C- in SOCY 122/6.0 or (BISC 100/3.0 and BISC 101/3.0) or 6.0 units in GNDS.

SOCY 387/3.0 Sociology of Crime and Delinquency
Critical study of conceptual, empirical, and theoretical bases to sociological approaches to crime and delinquency; Canadian research emphasized.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SOCY 275/3.0 or *SOCY 274/6.0*.

SOCY 388/3.0 Sociology of Criminal Justice
Comparative examination of criminal justice system and its major institutions; Canadian research emphasized.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SOCY 275/3.0 or *SOCY 274/6.0*.

SOCY 389/3.0 Gender, Law and Crime
Investigation of gender differences in offending, victimization and criminal justice processing; Canadian research emphasized.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SOCY 275/3.0 or *SOCY 274/6.0*.

SOCY 401/3.0 Advanced Studies in Contemporary Social Theory
Critical treatment of contemporary theories; emphasis upon logic of social inquiry.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 402/3.0 Families, Gender and the State
A critical assessment of contemporary issues and theories pertaining to intimate relationships and family relations. Contemporary research and debates are critically discussed. An overall objective of the course is to 'rethink the family' and consider and evaluate ideological assumptions and persistent myths about 'the family'.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 403/3.0 Sociology of the Body
This seminar aims at advanced students interested in exploring the body as a site for the production of social and cultural meaning and social inequality. Theoretical approaches may include critical race theory, queer theory, feminist theory, postcolonial theory, and sociological theories of the body. Topics covered may include the ways that representations of the body are linked to practices of racism, sexism, moral regulation, colonialism and nation-building.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 404/3.0 Sociology of Corporate Crime
Course examines the causes and effects of corporate crime, and the challenges of controlling, policing, and sanctioning it. The role of the regulatory agency, the impact of globalization, the rise of transnational corporations, and associated issues of development and power are considered.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and ([SOCY 275/3.0 and SOCY 276/3.0] or *SOCY 274/6.0*) and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 406/3.0 Walls to Bridges- Socio-legal Issues
This is an experimental learning course based on the Walls to Bridges program model, which brings together students from Queen's University ('outside students')with students from a local federal prison('inside students) to learn and share knowledge based on their lived experience and critical analysis of academic scholarship. Topics may vary.
NOTES This course will take place off campus at a local federal prison, as part of the Walls to Bridges prison education program- http://wallstobridges.ca/
PREREQUISITE The prerequisites for Sociology students are: Completion of Sociology option courses with a minimum of a 2.6 GPA, and completion of Sociology Core Courses (SOCY 210,211,226, and 227) with a minimum of a C grade in each. Interested students (both inside and outside) will need to submit an expression of interest followed by an interview with the course instructor. Students register for the course with instructor permission.
EXCLUSIONS PHIL 406/3.0

SOCY 407/3.0 W2B Philosophical Issues
This is an experimental learning course based on the Walls to Bridges program model, which brings together students from Queen's University ('outside students')with students from a local federal prison('inside students) to learn and share knowledge based on their lived experience and critical analysis of academic scholarship. Topics may vary.
NOTES This course will take place off campus at a local federal prison, as part of the Walls to Bridges prison education program- http://wallstobridges.ca/
PREREQUISITE The prerequisites for Sociology students are: Completion of Sociology option courses with a minimum of a 2.6 GPA, and completion of Sociology Core Courses (SOCY 210,211,226, and 227) with a minimum of a C grade in each. Interested students (both inside and outside) will need to submit an expression of interest followed by an interview with the course instructor. Students register for the course with instructor permission.
EXCLUSION PHIL 407/3.0

SOCY 420/3.0 Program Evaluation
This course focuses on program evaluation as applied sociology, including program theory, and will provide a practical understanding of how social research methods are used to assess social intervention programs.
LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 421/3.0 Multivariate Statistical Applications

Instruction and practice in building and testing multiple regression and logistic regression models with sociological data. Potential utility of alternative models considered.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 422/3.0 Advanced Studies in Communication and Information Technology

Examination of social implications of communication and information technology in the context of sociological theory.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 424/3.0 Sociology of Aging

This course provides a comprehensive and critical assessment of contemporary issues on social aging. This course focuses on how society and its major institutions have reacted to the aging of society as well as how they have shaped it. The social-psychological, social structural (gender, race and social class) and cultural factors that influence a person's experience of aging are examined.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 425/3.0 Selected Topics in Sociology I

Consult the Department for possible offerings in any given year.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 426/3.0 Selected Topics in Sociology II

Consult the Department for possible offerings in any given year.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 427/3.0 Selected Topics in Sociology III

Consult the Department for possible offerings in any given year.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 428/3.0 Selected Topics in Sociology IV

Consult the Department for possible offerings in any given year.

LEARNING HOURS 120 (36S;84P)

PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 429/3.0 Selected Topics in Sociology V
Consult the Department for possible offerings in any given year.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 430/3.0 Sociology of Consumer Culture
A critical engagement with theories of consumer culture with emphasis upon the material, symbolic and practice-orientated aspects of consumption in sociological context; substantive focus upon shopping, taste, brands, tourism, services, digital commodities.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and SOCY 306/3.0 and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 431/3.0 Advanced Studies in Gender Relations
Advanced study of gender relations from postcolonial and anti-racist theoretical perspectives. Historical and sociological analysis of femininity, masculinity, race and sexuality, particularly in the context of nation-building and colonialism.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and *SOCY 331/6.0* and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 454/3.0 Sociology of Organizations
This course will introduce students to the major theoretical approaches and ongoing debates within organization theory.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 457/3.0 Law and Social Structure
Sociological perspectives of the relationship of law to social structure, the role of law in social action, law's role in social change, and discrimination and social inequality through law; emphasis is on contemporary systems in comparative and historical perspective.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 458/3.0 Law and Ideology
Relationship between law and ideology with particular reference to current controversies; legal reasoning in substantive areas of law, and the place of law with reference to social control, power, social conflict, and dispute resolution; law's interconnections to state ordering and economic relations emphasized.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 472/3.0 Topics in the Sociology of Development
Examination of the relevance of sociological theories for a cross-cultural understanding of development.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 475/3.0 Advanced Studies in Deviance and Social Control
Critical study of theories and practices of social control in Canada and comparable societies insofar as they are implemented by law or regulation and rely on coercion; main agencies of social control and assumptions of their operation emphasized.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and ([SOCY 275/3.0 and SOCY 276/3.0] or *SOCY 274/6.0*) and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 476/3.0 Advanced Topics in Surveillance Studies
Advanced study of surveillance engaging with sociological, political, cultural and geographic perspectives. The focus is on core topics in Surveillance Studies including: the relationship between surveillance, power and social control; the concept of privacy, its history, utility and future; surveillance, pleasure and consumption; and surveillance in popular culture.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and SOCY 309/3.0 and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 510/3.0 Directed Special Reading
Students will arrange their reading in consultation with members of the Department. They will be expected to write reports on their readings and to discuss them throughout the term in seminars.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 511/3.0 Directed Special Reading
Students will arrange their reading in consultation with members of the Department. They will be expected to write reports on their readings and to discuss them throughout the term in seminars.
LEARNING HOURS 126 (36S;90P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 512/3.0 Directed Special Reading
Students will arrange their reading in consultation with members of the Department. They will be expected to write reports on their readings and to discuss them throughout the term in seminars.
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SOCY 520/6.0 Thesis
An intensive study of a particular topic or question, usually consisting of a number of sections or chapters which form a single coherent work. The topic is chosen by the student in consultation with an academic adviser, and the work covers both terms.
NOTE A brief giving details of the requirements is available in the Department; students should read this before the end of their third year. A meeting between staff and students is normally held in the Fall Term to discuss questions about the thesis.
LEARNING HOURS 240 (24I;216P)
PREREQUISITE Level 4 and registration in a SOCY Major or Medial Plan and (a minimum grade of C in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in SOCY 210/3.0 and SOCY 211/3.0 and SOCY 226/3.0 and SOCY 227/3.0) and (a minimum GPA of 2.60 in all SOCY).

SPAN 111/3.0 Beginning Spanish I
Offers a basic level of Spanish understanding, speaking, reading and writing for students who have no knowledge of Spanish whatsoever.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;12O;72P)
EQUIVALENCY *SPAN P10/3.0*.
ONE-WAY EXCLUSION May not be taken with or after SPAN 112/3.0; SPAN 204/3.0; SPAN 205/3.0; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0; *SPAN 201/6.0*.

SPAN 112/3.0 Beginning Spanish II
The continuation of SPAN 111/3.0. Also for students entering the University who have some knowledge of Spanish but have not completed 4U Spanish or equivalent. For these students an assessment exam or interview with an academic adviser is required before registration. Contact the Department of Languages, Literatures and Cultures for details.
NOTE Also offered at the Bader International Studies Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS 120 (36L;6O;78P)
PREREQUISITE A grade of C in SPAN 111/3.0 or *SPAN P10/3.0*.
EXCLUSION(S) SPAN 111/3.0; *SPAN P10/3.0*.
ONE-WAY EXCLUSION May not be taken with or after *SPAN 201/6.0*; SPAN 204/3.0; SPAN 205/3.0; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0.

SPAN 204/3.0 Español intermedio
A review of the fundamentals of Spanish, in cultural contexts, designed to develop aural, oral, reading and writing skills.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION 4U Spanish.
PREREQUISITE A grade of C in SPAN 112/3.0.
ONE-WAY EXCLUSION May not be taken with or after *SPAN 201/6.0*; SPAN 205/3.0; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0.

SPAN 205/3.0 Español avanzado
An advanced treatment of the written and spoken language, involving a study of syntax and style, written composition, translation into Spanish and oral discussions of cultural topics.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in SPAN 204/3.0.
ONE-WAY EXCLUSION May not be taken with or after *SPAN 201/6.0*; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0.

SPAN 206/3.0 Spanish Conversation and Culture
This course is an intermediate conversation course designed to advance skills in oral communication and cultural competence, supported by grammar review and written assignments. Students will engage with different media sources, including Spanish-language film, news items, cultural readings, music and literary texts.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE A grade of C in SPAN 204/3.0.
COREQUISITE SPAN 205/3.0 or SPAN 302/3.0.
ONE-WAY EXCLUSION May not be taken with of after SPAN 401/3.0; SPAN 402/3.0.

SPAN 301/3.0 Gramática avanzada y composición I
This course provides a comprehensive review of the most difficult aspects of Spanish grammar through advanced exercises in reading, composition, and conversation. The goal of the course is to consolidate and perfect the student's written and oral skills.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE *SPAN 201/6.0* or SPAN 205/3.0.
ONE-WAY EXCLUSION May not be taken with or after SPAN 302/3.0; SPAN 401/3.0; SPAN 402/3.0.

SPAN 302/3.0 Gramática avanzada y composición II
This course provides a comprehensive review of the most difficult aspects of Spanish grammar through advanced exercises in reading, composition, and conversation. The goal of the course is to consolidate and perfect the student's written and oral skills.
PREREQUISITE SPAN 301/3.0.
ONE-WAY EXCLUSION May not be taken with or after SPAN 401/3.0; SPAN 402/3.0.

SPAN 303/3.0 Español para contextos profesionales I
Intensive practice in advanced grammar with a focus on Spanish for business, technical, administrative and related cultural purposes.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE *SPAN 201/6.0* or SPAN 205/3.0.

SPAN 304/3.0 Español para contextos profesionales II
Intensive practice in advanced grammar with a focus on Spanish for business, technical, administrative and related cultural purposes.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 303/3.0.

SPAN 306/3.0 La narrativa hispanoamericana del siglo 20
A study of selected works by Spanish American writers such as Horacio Quiroga, Gabriel García Márquez, Jorge Luis Borges, Juan Rulfo, Julio Cortázar and Reinaldo Arenas.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 352/3.0.
COREQUISITE (SPAN 301/3.0 and SPAN 302/3.0) or (SPAN 303/3.0 and SPAN 304/3.0).

SPAN 310/3.0 Artistic Representations of the Spanish Civil War
The Spanish Civil War (1936-39) culminated in the military overthrow of the Republican government and the beginning of Francisco Franco's long dictatorship. This course examines artistic representations of the war in film (both documentary and fictional) and in other visual media (paintings, photography, posters), as well as in the written works of both Spanish and foreign authors such as Orwell, Hemingway, Neruda, Sender and Rodoreda.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 381/3.0.

SPAN 330/3.0 Cervantes I: Earlier Works
A study of Don Quijote I and a selection of his short theatrical Interludes. The course will consider the socio-economic and historical context and the literary implications of these works to provide a better understanding of 17th century Spain and the significance Cervantes' works still hold today.
NOTE Taught in English together with LLCU 330/3.0. Students concentrating in Spanish submit written assignments, tests and examinations in Spanish.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 380/3.0.
COREQUISITE (SPAN 301/3.0 and SPAN 302/3.0) or (SPAN 303/3.0 and SPAN 304/3.0).
EXCLUSION(S) LLCU 330/3.0

SPAN 331/3.0 Cervantes II: Later Works
A study of Don Quijote II and a selection of novellas from Cervantes' Exemplary Novels. The course will consider the socio-economic and historical context and the literary implications of the continuation of Don Quijote I to provide a better understanding of 17th century Spain and the significance Cervantes' works hold today.
NOTE Taught in English with LLCU 331/3.0. Written work and examinations are in Spanish. Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 330/3.0.
EXCLUSION(S) LLCU 331/3.0

SPAN 332/3.0 Spanish Baroque Short Theatre
Short theatre played an important role in the theatre of Spanish Golden Age. In this course students will study the literary particularities of the genre and the social ramifications of the themes present in short theatre (gender, battle of the sexes, diversity, authority amongst others) and their historical and contemporary relevance.
NOTE Taught in English with LLCU 332/3.0. Written work and examinations are in Spanish. Readings are in translation.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 380/3.0 or SPAN 381/3.0.
EXCLUSION(S) LLCU 332/3.0

SPAN 333/3.0 Acting Out: Sexual and Gender Subversion in Baroque Theatre
Baroque playwrights took full advantage of the actor Juan Rana's well-known queerness to subvert implicitly and explicitly the social norms of sexual and gender identity still questioned today. Course will examine Spanish Baroque short theatre in general and historically contextualize its subversion of social, sexual, gender, and patriarchal norms.
NOTE Taught in English with LLCU 333/3.0. Students concentrating in Spanish submit written assignments, tests, and examinations in Spanish.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 302/3.0.
EXCLUSION(S) LLCU 333/3.0

SPAN 344/3.0 La sociedad española a través del cine
A study of changes in Spanish society as reflected in film and/or literature.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 381/3.0.
COREQUISITE (SPAN 301/3.0 and SPAN 302/3.0) or (SPAN 303/3.0 and SPAN 304/3.0).

SPAN 351/3.0 Panorama literario latinoaméricano I
A survey of the major authors and works of Latin American literature from 1492 to the end of the 19th century. Readings will include texts from all genres and will illustrate the main cultural and historical trends and movements.
PREREQUISITE SPAN 205/3.0 or *SPAN 201/6.0.*

SPAN 352/3.0 Panorama literario latinoaméricano II
A survey of the major authors and works of Latin American literature from the beginning of the 20th century to the present. Readings will include texts from all genres and will illustrate the main cultural and historical trends and movements.
PREREQUISITE SPAN 205/3.0 or *SPAN 201/6.0.*

SPAN 354/3.0 Voces femeninas en America Latina
A study of recent contributions to Latin American cultural production by women, including an overview of gender issues and the role women have played in their nations' history. The course will also explore the variety of voices that make up the cultural production of women in Latin America in terms of class, ethnicity, race and sexual orientation.
NOTE Taught in English with LLCU 354/3.0. Student concentrating in Spanish submit written assignments, tests and examinations in Spanish.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE SPAN 351/3.0 or SPAN 352/3.0.
COREQUISITE (SPAN 301/3.0 and SPAN 302/3.0) or (SPAN 303/3.0 and SPAN 304/3.0).
EXCLUSION(S) LLCU 354/3.0

SPAN 380/3.0 Introducción: Literatura de España I
An introduction to the major authors and works of the literature of Spain from its beginnings to the end of the 17th Century. Through study and analysis students will obtain a general understanding of the main cultural, historical, and societal trends and movements during these periods.
PREREQUISITE *SPAN 201/6.0* or SPAN 205/3.0.

SPAN 381/3.0 Introducción: Literatura de España II
An introduction to the major authors and works of the literature of Spain from the Enlightenment to the present. Through study and analysis students will obtain a general understanding of the main cultural and historical and societal trends and movements during these eras.
PREREQUISITE *SPAN 201/6.0* or SPAN 205/3.0.

SPAN 401/3.0 Advanced Grammar Through Translation I
This course aims to perfect the students' ability to write and speak in Spanish, with intensive practice of advanced Spanish grammatical structures through translation exercises, as well as compositions and oral work.
PREREQUISITE SPAN 302/3.0 or SPAN 304/3.0 (or permission of the Department of Languages, Literatures and Cultures).
ONE WAY EXCLUSION May not be taken with or after SPAN 402/3.0.

SPAN 402/3.0 Advanced Grammar Through Translation II
This course aims to perfect the students' ability to write and speak in Spanish, with intensive practice of advanced Spanish grammatical structures through translation exercises, as well as compositions and oral work.
PREREQUISITE SPAN 401/3.0 (or permission of the Department of Languages, Literatures and Cultures).

SPAN 406/3.0 Introducción a la teoría y el análisis literario
An introduction to contemporary literary theories and the analysis of Hispanic texts from reader-, structural- and author-oriented perspectives.
NOTE Taught in English together with LLCU 316/3.0. Students concentrating in Spanish submit written assignments, tests, and examination in Spanish. Normally they will read Hispanic texts in the original.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 352/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) LLCU 316/3.0

SPAN 408/3.0 The Films of Pedro Almodóvar
Students will view and analyze a selection of Almodóvar's films within the context of Spain and other countries. The study of gender, sexual, cultural and societal identity and other fundamentals of contemporary theory will be central to this course.
NOTE Taught in English together with LLCU 309/3.0. Students concentrating in Spanish submit written assignments, tests, and examination in Spanish.
LEARNING HOURS 120 (36L;36T;48P)
PREREQUISITE SPAN 381/3.0 (or permission of the Department of Languages, Literatures and Cultures).
EXCLUSION(S) LLCU 309/3.0

SPAN 428/3.0 Gender, Development and Film in Latin America
This course will explore major themes of development in relation to gender in Latin America through its manifestation in film. Films will be chosen from all regions of Latin America, including Brazil.
NOTE Taught in English together with LLCU 328/3.0. Students concentrating in Spanish submit written assignments, tests and examinations in Spanish.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 351/3.0 or SPAN 352/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) LLCU 328/3.0

SPAN 458/3.0 Film y Politica en Argentina
This course will examine critically a variety of representative Latin American films from a historical and filmic perspective. Beginning with the Peron era in the 1940s and 50s, and continuing through the dictatorship years of 1976 to 1983 and its aftermaths, we will examine how Argentine filmmakers express national reality and identity.
NOTE Taught in English with LLCU 358/3.0. Students concentrating in Spanish submit written assignments, tests and examinations in Spanish.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE SPAN 351/3.0 or SPAN 352/3.0 or permission of the Department of Languages, Literatures and Cultures.
EXCLUSION(S) LLCU 358/3.0

SPAN 495/3.0 Literatura de España: Estudios independientes II
Seminar courses on topics in Spanish literature. Course details to be announced on website.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SPAN Major or SLAS Specialization Plan or permission of the Department of Languages Literatures and Cultures.

SPAN 496/3.0 Literatura de Hispanoamérica: Estudios independientes II
Seminar courses on topics in Spanish American literature. Course details to be announced on website.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Level 4 and registration in a SPAN Major or SLAS Specialization Plan or permission of the Department of Languages Literatures and Cultures.

SPAN 501/3.0 Literatura de España: Temas específicos
Seminar courses on topics in Spanish literature. Course details to be announced on website.
LEARNING HOURS 120 (36S;84P)
PREREQUISITE Permission of the Department of Languages Literatures and Cultures.

SPAN 502/3.0 Literatura de España: Estudios independientes
Reading courses in selected fields of Peninsular literature to meet the needs of advanced students for whom a seminar course is not available. Course details to be announced on website.
LEARNING HOURS 120 (120P)
PREREQUISITE Permission of the Department of Languages Literatures and Cultures.

SPAN 504/3.0 Literatura de Hispanoamérica: Estudios independientes
Reading courses in selected fields of Spanish American literature to meet the needs of advanced students for whom a seminar course is not available. Course details to be announced on website.
PREREQUISITE Permission of the Department of Languages Literatures and Cultures.

STAM 200/3.0 Introduction to Statistics

An introduction to the analysis of data from real life situations. Covers study design, descriptive and inferential statistics. Topics include probability, t-tests, regressions, Chi-square tests, analysis of variance. Emphasis is in the foundation of statistical inference and practical application of statistical methods using statistical software.

NOTE Also offered online. Consult Arts and Science Online.

LEARNING HOURS 120 (96O;24P)

EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0

ONE-WAY EXCLUSION May not be taken with or after STAT 269/3.0.

STAT 263/3.0 Introduction to Statistics
A basic course in statistical methods with the necessary probability included. Topics include probability models, random variables, distributions, estimation, hypothesis testing, elementary nonparametric methods.
NOTE Also offered online. Consult Arts and Science Online. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION An Ontario 4U mathematics course or equivalent.
EXCLUSION(S) BIOL 243/3.0; CHEE 209/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 267/3.0; STAT 367/3.0; COMM 162/3.0
ONE-WAY EXCLUSION May not be taken with or after STAT 269/3.0.

STAT 268/3.0 Statistics and Probability I
Basic ideas of probability theory such as random experiments, probabilities, random variables, expected values, independent events, joint distributions, conditional expectations, moment generating functions. Main results of probability theory including Chebyshev's inequality, law of large numbers, central limit theorem. Introduction to statistical computing.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0.
COREQUISITE MATH 221/3.0 or MATH 280/3.0.
EXCLUSION(S) STAT 351/3.0

STAT 269/3.0 Statistics and Probability II
Basic techniques of statistical estimation such as best unbiased estimates, moment estimates, maximum likelihood. Bayesian methods. Hypotheses testing. Classical distributions such as the t-distribution, F-distribution, beta distribution. These methods will be illustrated by simple linear regression. Statistical computing.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (MATH 221/3.0 or MATH 280/3.0) and (STAT 268/3.0 or STAT 351/3.0), or permission of the Department.

STAT 351/3.0 Probability I
Probability theory; probability models; random variables; jointly distributed random variables; transformations and generating functions. Inequalities and limit laws. Distributions: binomial, Poisson, exponential, gamma, normal. Applications: elementary stochastic processes, time-to-failure models, binary communication channels with Gaussian noise.
LEARNING HOURS 120 (36L;12T;72P)
COREQUISITE MATH 221/3.0 or MATH 280/3.0.
EXCLUSION(S) STAT 268/3.0

STAT 353/3.0 Probability II
Intermediate probability theory as a basis for further study in mathematical statistics and stochastic processes; probability measures, expectations; modes of convergence of sequences of random variables; conditional expectations; independent systems of random variables; Gaussian systems; characteristic functions; Law of large numbers, Central limit theory; some notions of dependence.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (STAT 268/3.0 or STAT 351/3.0) and (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and MATH 281/3.0.

STAT 361/3.0 Applied Methods in Statistics I
A detailed study of simple and multiple linear regression, residuals and model adequacy. The least squares solution for the general linear regression model. Analysis of variance for regression and simple designed experiments; analysis of categorical data.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (MATH 110/6.0 or MATH 111/6.0 or MATH 112/3.0) and (STAT 268/3.0 or STAT 351/3.0) and (STAT 263/3.0 or STAT 269/3.0), or permission of the Department.
EXCLUSION(S) ECON 351/3.0

STAT 362/3.0 R for Data Science
Introduction to R, data creation and manipulation, data import and export, scripts and functions, control flow, debugging and profiling, data visualization, statistical inference, Monte Carlo methods, decision trees, support vector machines, neural network, numerical methods.
LEARNING HOURS 118 (36L;12G;70P)

PREREQUISITE (STAT 263/3.0 or STAT 268/3.0) and MATH 120/6.0 or MATH 121/6.0 or MATH 124/3.0 or MATH 126/6.0 or MATH 110/6.0 or MATH 111/6.0 or (MATH 112/3.0 and MATH 212/3.0) or permission of the department.

STAT 455/3.0 Stochastic Processes and Applications
Markov chains, birth and death processes, random walk problems, elementary renewal theory, Markov processes, Brownian motion and Poisson processes, queuing theory, branching processes. Given jointly with STAT 855/3.0.
LEARNING HOURS 120 (36L;12T;72P)
PREREQUISITE STAT 353/3.0 or (STAT 269/3.0 or STAT 351/3.0 with permission of the Department).

STAT 456/3.0 Bayesian Analysis
An introduction to Bayesian analysis and decision theory; elements of decision theory; Bayesian point estimation, set estimation, and hypothesis testing; special priors; computations for Bayesian analysis. Given jointly with STAT 856/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE STAT 463/3.0 or permission of the Department.

STAT 457/3.0 Statistical Learning
Introduction to the theory and application of statistical algorithms. Topics include classification, smoothing, model selection, optimization, sampling, supervised and unsupervised learning. Given jointly with STAT 857/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE STAT 361/3.0 or ECON 351/3.0 or permission of the Department.

STAT 462/3.0 Computational Data Analysis
A working knowledge of the statistical software R is assumed. Classification; spline and smoothing spline; regularization, ridge regression, and Lasso; model selection; treed-based methods; resampling methods; importance sampling; Markov chain Monte Carlo; Metropolis-Hasting algorithm; Gibbs sampling; optimization. Given jointly with STAT 862/3.0.
LEARNING HOURS 120 (36L;84P)
COREQUISITE STAT 361/3.0 or ECON 351/3.0, or permission of the Department.

STAT 463/3.0 Fundamentals of Statistical Inference
Decision theory and Bayesian inference; principles of optimal statistical procedures; maximum likelihood principle; large sample theory for maximum likelihood estimates; principles of hypotheses testing and the Neyman-Pearson theory; generalized likelihood ratio tests; the chi-square, t, F and other distributions.
LEARNING HOURS 132 (36L;96P)
RECOMMENDATION STAT 353/3.0.
PREREQUISITE STAT 269/3.0.

STAT 464/3.0 Discrete Time Series Analysis
Autocorrelation and autocovariance, stationarity; ARIMA models; model identification and forecasting; spectral analysis. Applications to biological, physical and economic data.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE STAT 361/3.0 or ECON 351/3.0, or permission of the Department.

STAT 465/3.0 Quality Management
An overview of the statistical and lean manufacturing tools and techniques used in the measurement and improvement of quality in business, government and industry today. Topics include management and planning tools, Six Sigma approach, statistical process charting, process capability analysis, measurement system analysis and factorial and fractional factorial design of experiments.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE STAT 263/3.0 or STAT 269/3.0 or permission of the Department.

STAT 466/3.0 Statistical Programming with SAS and Applications
Introduction to the basic knowledge in programming, data management, and exploratory data analysis using SAS software: data manipulation and management; output delivery system; advanced text file generation, statistical procedures and data analysis, macro language, structure query language, and SAS applications in clinical trial, administrative financial data.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (STAT 263/3.0 or STAT 269/3.0), or permission of the Department.

STAT 471/3.0 Sampling and Experimental Design
Simple random sampling; Unequal probability sampling; Stratified sampling; Cluster sampling; Multi-stage sampling; Analysis of variance and covariance; Block designs; Fractional factorial designs; Split-plot designs; Response surface methodology; Robust parameter designs for products and process improvement. Offered jointly with STAT 871/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (STAT 361/3.0 or ECON 351/3.0) and STAT 463/3.0 or permission of the Department.
EQUIVALENCY *STAT 362/3.0*.

STAT 473/3.0 Generalized Linear Models
An introduction to advanced regression methods for binary, categorical, and count data. Major topics include maximum-likelihood method, binomial and Poisson regression, contingency tables, log linear models, and random effect models. The generalized linear models will be discussed both in theory and in applications to real data from a variety of sources. Given jointly with STAT 873/3.0.
LEARNING HOURS 120 (36L;84P)
PREREQUISITE (STAT 361/3.0 or ECON 351/3.0) and STAT 463/3.0 or permission of the Department.

STAT 486/3.0 Survival Analysis
Introduces the theory and application of survival analysis: survival distributions and their applications, parametric and nonparametric methods, proportional hazards models, counting process and proportional hazards regression, planning and designing clinical trials. Given jointly with STAT 886/3.0.
LEARNING HOURS 120 (36L;84P)
RECOMMENDATION STAT 462/3.0.
PREREQUISITE (STAT 361/3.0 or ECON 351/3.0) and STAT 463/3.0 or permission of the Department.

STAT 499/3.0 Topics in Statistics
An important topic in statistics not covered in any other courses.
PREREQUISITE Permission of the Department.
EXCLUSION *STAT 505/3.0*.

STAT 506/3.0 Topics in Statistics II
An important topic in probability or statistics not covered in any other course.
LEARNING HOURS 132 (24I;108P)
PREREQUISITE Permission of the Department.

WRIT 120/3.0 Fundamentals of Effective Writing
A focus on the principles and practical applications of effective writing. Students apply effective writing strategies to address a variety of professional and academic audiences. Students plan, outline, write, and revise reader-centred documents that relate to forms and contexts they will encounter in the workplace and in educational environments.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 114 (36O;78P)

WRIT 125/3.0 Fundamentals of Academic Essay Writing
A study of the basic principles of academic writing, including a series of assignments that emphasize logical organization, stylistic clarity, and grammatical precision.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 126 (66O;60P)
EQUIVALENCY *WRIT P75/3.0*.

WRIT 175/3.0 Effective Writing II
An intensive study of the essay-writing process, from techniques of prewriting and outlining through revising for grammatical correctness and argumentative clarity, with particular emphasis on critical reading skills. Enrolment is limited.
NOTE A student with a 100-level course with a writing component, such as DRAM, ENGL, FILM, HIST, PHIL, POLS, SOCY may alternatively use this as a prerequisite and should contact the instructor for permission to register in the course.
PREREQUISITE (3.0 units from WRIT 125/3.0 or *WRIT P75/3.0*) or permission of the instructor.

WRIT 225/3.0 Writing for Research, Analysis and Reflection
This course enables students to develop a clear, concise writing style while enhancing their critical thinking, research, reflective writing, teamwork, and presentation skills. Students may choose from a number of assessments – including reviews, personal essays, and research proposals – according to their interests and writing goals.
NOTE Offered only online. Consult Arts and Science Online.
LEARNING HOURS 114 (36O;78P)
PREREQUISITE WRIT 120/3.0 or WRIT 125/3.0 or ENGL 100/6.0, or permission of the instructor.

WRIT 235/6.0 Writing in the Community
An interdisciplinary course that employs a community service-learning model in order to develop specialized writing skills. Students will be actively involved in the completion of a writing project in the local community. Written and oral work will facilitate individual reflection on the writing process. Class time consisting of lectures, discussions, workshops, and presentations will encourage critical thinking, editing, and research skills.
PREREQUISITE (3.0 units from WRIT 125/3.0 or WRIT 175/3.0 or *WRIT P75/3.0*) or permission of the instructor.

WRIT 240/3.0 Writing for Social Media and the Web
Students are introduced to professional writing in the context of online media. As students write and critically assess writing in the genres of blog entries, Twitter essays, and other forms of social media, they strengthen writing and editing skills, write according to purpose and audience, and recognize various styles in social media writing.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 120 (36O;84P)
PREREQUISITE WRIT 120/3.0 or WRIT 125/3.0.

WRIT 250/3.0 Writing in Business Contexts
A focus on the principles of business writing. Students analyze workplace contexts and identify writing strategies best suited to address business problems. Students research, organize, design, and create reader-centred documents and various electronic and print texts that relate to practical situations they will encounter in the business world.
NOTE Only offered online. Consult Arts and Science Online.
LEARNING HOURS 114 (36O;84P)
PREREQUISITE WRIT 120/3.0 or WRIT 125/3.0 or permission of the instructor.

WRIT 265/3.0 Editing in Academic and Professional Contexts

This course introduces the levels of editing – substantive, stylistic, and copyediting – and how to apply these skills to academic and professional documents such as reports, essays, articles, and newsletters. The course will give students the tools both to revise their own work and to edit the work of others for greater clarity.

NOTE A student with a 100-level course with a writing component, such as DRAM, ENGL, FILM, HIST, PHIL, POLS, SOCY may alternatively use this as a prerequisite and should contact the instructor for permission to register in the course.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 114 (36O;78P)

PREREQUISITE WRIT 120/3.0 or WRIT 125/3.0 or ENGL 100/6.0, or permission of the instructor.

WRIT 275/3.0 Analytical Writing

An interdisciplinary course on analytical writing, applying selected principles of rhetoric and linguistics. Collaborative exercises and peer-edited essays are supplemented by critical reading of diverse articles and narratives. Enrolment is limited.

PREREQUISITE WRIT 175/3.0 or permission of the instructor.

WRIT 290/3.0 Writing Creative Non-fiction

Creative non-fiction genres are written in prose, deal with non-fictional subject matter, and use a vast range of styles. In WRIT 290, students analyze and write works of creative non-fiction. Through readings, exercises, online discussions, and writing assignments, students learn how creative non-fiction can work as a creative form of writing.

NOTE A student with a 100-level course with a writing component, such as DRAM, ENGL, FILM, HIST, PHIL, POLS, SOCY may alternatively use this as a prerequisite and should contact the instructor for permission to register in the course.

NOTE Only offered online. Consult Arts and Science Online.

LEARNING HOURS 114 (36O;78P)

PREREQUISITE WRIT 120/3.0 or WRIT 125/3.0 or ENGL 100/6.0, or permission of the instructor.