

# COURSES FOR FIRST-YEAR STUDENTS

The First-Year Registration Guide (<https://www.queensu.ca/artsci/undergrad-students/first-year-students/registration-guide/>) can be found on the Arts and Science website.

## Anishinaabe (ANSH)

### **ANSH 101 Beginning Anishinaabe Language and Culture I Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion LLCU 101 (Topic Title: Anishinaabemowin I).

**Offering Faculty:** Faculty of Arts and Science

### **ANSH 102 Beginning Anishinaabe Language and Culture II Units: 3.00**

A continuation of ANSH 101. 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).

**Requirements:** Prerequisite ANSH 101. Exclusion LLCU 102 (Topic Title: Anishinaabemowin I).

**Offering Faculty:** Faculty of Arts and Science

## Arabic Language (ARAB)

### **ARAB 100 Introductory Arabic (Modern Standard) Units: 6.00**

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)

**Requirements:** Prerequisite Permission of the Instructor.

**Offering Faculty:** Faculty of Arts and Science

### **ARAB 201 Intermediate Arabic (Modern Standard) Units: 3.00**

This course seeks to introduce students to more advanced grammatical structures, to develop reading comprehension, writing, listening, and speaking skills.

LEARNING HOURS 120 (36L;84P).

**Requirements:** Prerequisite ARAB 100 or permission of the Department of Languages, Literatures and Cultures. Exclusion ARAB 200.

**Offering Faculty:** Faculty of Arts and Science

## Art History (ARTH)

### **ARTH 120 Art in the West from Antiquity to Modernity Units: 6.00**

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)

**Requirements:** Prerequisite None. Exclusion A maximum of 9.0 units from ARTH 116; ARTH 117; ARTH 120.

**Course Equivalencies:** ARTH120; ARTH120B

**Offering Faculty:** Faculty of Arts and Science

## Bader College (BADR)

### **BADR 100 Thinking Locally Units: 3.00**

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.

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

**Requirements:** Prerequisite Level 1 or above. Exclusion FILM 106; GPHY 101. Equivalency BISC 100/3.0.

**Offering Faculty:** Faculty of Arts and Science

### **BADR 101 Acting Globally Units: 3.00**

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, and Sociology). Academic skills will be honed by centering on centrifugal forces of mobility, exchange and action. Processes such as warring, colonizing, trading, connecting and leading are highlighted.

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

**Requirements:** Prerequisite Level 1 or above. Equivalency BISC 101/3.0.

**Offering Faculty:** Faculty of Arts and Science



## Biology (BIOL)

### **BIOL 102 Fundamentals of Biology: Molecular and Cell Biology Units: 3.00**

The essential biochemistry, genetics, cell biology, and metabolic pathways underlying the survival and success of all living organisms. Themes and case studies could range from the application of genetic engineering in biotechnology to the role of cellular dysregulation in inheritable diseases.

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).

**Requirements:** Prerequisite None. Recommended 4U Biology and Chemistry, or equivalent high school background.

**Offering Faculty:** Faculty of Arts and Science

### **BIOL 103 Fundamentals of Biology: Organisms to Ecosystems Units: 3.00**

The origins and diversification of multicellular organisms, their form, function and adaptation to stress and a changing world. Themes and case studies include energy flow from molecules to ecosystems, organismal interactions including parasitism and disease dynamics, and the impacts of human activity.

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).

**Requirements:** Prerequisite None. Recommended BIOL 102.

**Offering Faculty:** Faculty of Arts and Science

## Chemistry (CHEM)

### **CHEM 112 General Chemistry Units: 6.00**

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, Disposable Face Shield (may require more than one): estimated cost \$7.50, Disposable Face Mask (may require more than one): estimated cost \$1.

LEARNING HOURS 288 (72L;36Lb;36G;48O;96P).

**Requirements:** Prerequisite None. Exclusion CHEM 113; CHEM 114. Recommended 4U Chemistry or equivalent.

**Offering Faculty:** Faculty of Arts and Science

## Chinese (CHIN)

### **CHIN 100 Introductory Mandarin Chinese I Units: 6.00**

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.

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

**Requirements:** Prerequisite Level 1 or (Level 2 or above and a cumulative GPA of 1.90 or higher). Note Students will have their level of competence assessed by the instructor during orientation week in September.

**Offering Faculty:** Faculty of Arts and Science

## Classical Studies (CLST)

### **CLST 102 Introduction to Greek Civilization Units: 3.00**

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)

**Requirements:** Prerequisite None. Exclusion CLST 101.

**Offering Faculty:** Faculty of Arts and Science

**CLST 103 Introduction to Roman Civilization Units: 3.00**

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)

**Requirements:** Prerequisite None. Exclusion CLST 101.

**Offering Faculty:** Faculty of Arts and Science

**CLST 130 Introduction to Archaeology I: Great Discoveries in Archaeology Units: 3.00**

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)

**Requirements:** Prerequisite None. Exclusion CLST 129.

**Offering Faculty:** Faculty of Arts and Science

**CLST 131 Introduction to Archaeology II: Methods and Analysis Units: 3.00**

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)

**Requirements:** Prerequisite None. Exclusion CLST 129.

**Offering Faculty:** Faculty of Arts and Science

**CLST 150 Warfare in the Ancient World Units: 3.00**

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)

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**Cognitive Science (COGS)****COGS 100 Introduction to Cognitive Science Units: 3.00**

A multidisciplinary approach to the study of the mind combining approaches 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)

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**Computer and Information Science (CISC)****CISC 101 Elements of Computing Science Units: 3.00**

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.

NOTE Sufficient preparation for CISC 121; alternative to CISC 110 and CISC 151.

LEARNING HOURS 120(36L;84P).

**Requirements:** Prerequisite None. Exclusion APSC 142; APSC 143; CISC 110; CISC 151. One-Way Exclusion May not be taken with or after CISC 121; CISC/CMPE/COCA/COGS/SOFT at the 200-level or above. Note This course is intended for students who have no programming experience.

**Offering Faculty:** Faculty of Arts and Science

**CISC 102 Discrete Mathematics for Computing I Units: 3.00**

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.

LEARNING HOURS 120 (36L;84P)

**Requirements:** Prerequisite None. One-Way Exclusion May not be taken with or after CISC 203.

**Offering Faculty:** Faculty of Arts and Science

**CISC 110 Creative Computing Units: 3.00**

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 Sufficient preparation for CISC 121; alternative to CISC 101 and CISC 151.

NOTE With permission of the School, students with programming experience may take this concurrently with CISC 121.

LEARNING HOURS 120 (36L;84P).

**Requirements:** Prerequisite None. Exclusion APSC 142; APSC 143; CISC 101; CISC 151. One-Way Exclusion May not be taken with or after CISC 121; CISC/CMPE/COCA/COGS/SOFT at the 200-level or above. Note No computing or art background required.

**Offering Faculty:** Faculty of Arts and Science



**CISC 121 Introduction to Computing Science I Units: 3.00**

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).

**Requirements:** Prerequisite None. Corequisite (CISC 102 or MATH 110 or MATH 111 or MATH 112 or MATH 120 or MATH 121 or MATH 123 or MATH 124 or MATH 126 or APSC 171 or APSC 172 or APSC 174 or COMM 161 or COMM 162). Exclusion APSC 143. Recommended Some programming experience (such as high-school level programming or CISC 101 or CISC 110 or CISC 151).

**Offering Faculty:** Faculty of Arts and Science

**CISC 124 Introduction to Computing Science II Units: 3.00**

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)

**Requirements:** Prerequisite A minimum grade of a C- (obtained in any term) or a 'Pass' (obtained in Winter 2020) in CISC 121. Corequisite (CISC 102 or MATH 110 or MATH 111 or MATH 112 or MATH 120 or MATH 121 or MATH 123 or MATH 124 or MATH 126 or APSC 171 or APSC 172 or APSC 174 or COMM 161 or COMM 162).

**Offering Faculty:** Faculty of Arts and Science

**CISC 151 Elements of Computing with Data Analytics Units: 3.00**

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; alternative to CISC 101 and CISC 110.

LEARNING HOURS 120 (36L;84P).

**Requirements:** Prerequisite None. Exclusion APSC 142; APSC 143; CISC 101; CISC 110. One-Way Exclusion May not be taken with or after CISC 121; CISC/CMPE/COCA/COGS/SOFT at the 200-level or above.

**Offering Faculty:** Faculty of Arts and Science

**CISC 181 Digital Societies Units: 3.00**

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)

**Requirements:** Prerequisite None. Equivalency CISC P81.

**Offering Faculty:** Faculty of Arts and Science

**Drama (DRAM)**

**DRAM 100 Introduction to Theatre Units: 6.00**

An exploration of theatre as a live performing art that seeks to engage, document, and affect communities. Topics may include theatre and society, theatrical representation, performance, and the work of actors, directors, designers, technicians, and playwrights. Opportunities given for practical projects.

LEARNING HOURS 228 (36L;36Lb;36O;120P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**Economics (ECON)**

**ECON 110 Principles of Economics Units: 6.00**

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).

**Requirements:** Prerequisite None. Exclusion ECON 111; ECON 112; COMM 171; COMM 172.

**Offering Faculty:** Faculty of Arts and Science

**ECON 111 Introductory Microeconomics Units: 3.00**

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. NOTE ECON 111 and ECON 112 together, are equivalent to ECON 110.

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).

**Requirements:** Prerequisite None. Exclusion ECON 110; COMM 171; COMM 172.

**Offering Faculty:** Faculty of Arts and Science

### **ECON 112 Introductory Macroeconomics Units: 3.00**

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.

NOTE ECON 111 and ECON 112 together, are equivalent to ECON 110.

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;120;72P).

**Requirements:** Prerequisite None. Exclusion ECON 110; COMM 171; COMM 172.

**Offering Faculty:** Faculty of Arts and Science

### **English Language and Literature (ENGL)**

#### **ENGL 100 Introduction to Literary Study Units: 6.00**

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 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).

**Requirements:** Prerequisite None. Note Priority enrolment is given to first-year students.

**Course Equivalencies:** ENGL100;ENGL100B

**Offering Faculty:** Faculty of Arts and Science

### **Environmental Science/Studies (ENSC)**

#### **ENSC 103 Environment and Sustainability Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Course Equivalencies:** ENSC103; ENSC203

**Offering Faculty:** Faculty of Arts and Science

### **Film and Media (FILM)**

#### **FILM 110 Film, Media and Screen Cultures Units: 6.00**

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, and alternatives in international cinema. Course requirements include both written work and elementary projects on videotape.

LEARNING HOURS 216 (24L;24Lb;36T;36Pc;96P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **French Language and Literature (FREN)**

#### **FREN 150 Français intermédiaire Units: 6.00**

Practice in reading, writing, grammar review, and literary analysis.

NOTE Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.

LEARNING HOURS 216 (48L;24T;36O;108P).

**Requirements:** Prerequisite None. Exclusion A maximum of 6.0 units from FREN 100; FREN 101; FREN 102; FREN 110; FREN 150. Equivalency FREN 100. Note A placement test is recommended prior to registering in this course, please visit the Department of French Studies webpage for more information.

**Offering Faculty:** Faculty of Arts and Science

### **Gender Studies (GNDS)**

#### **GNDS 120 Women, Gender, Difference Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Course Equivalencies:** GNDS120, WMNS101, WMNS102, WMN

**Offering Faculty:** Faculty of Arts and Science



### **GNDS 125 Gender, Race and Popular Culture Units: 3.00**

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.

NOTE Film Screening: estimated cost \$15.

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

**Requirements:** Prerequisite None.

**Course Equivalencies:** GNDS125, WMNS125, WMNS225

**Offering Faculty:** Faculty of Arts and Science

### **Geography (GPHY)**

#### **GPHY 101 Human Geography Units: 3.00**

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.

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

LEARNING HOURS 120 (24L;18T;42O;36P).

**Requirements:** Prerequisite None. Exclusion BISC 100.

**Offering Faculty:** Faculty of Arts and Science

#### **GPHY 102 Physical Geography and Natural Resources Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **Geology (GEOL)**

#### **GEOL 104 The Dynamic Earth Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Course Equivalencies:** GEOL 104/105 / APSC 151

**Offering Faculty:** Faculty of Arts and Science

#### **GEOL 107 History of Life Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **German (GRMN)**

#### **GRMN 101 Beginner's German I Units: 3.00**

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;12O;72P).

**Requirements:** Prerequisite None. One-Way Exclusion May not be taken with or after GRMN 102; GRMN 201; GRMN 202.

**Offering Faculty:** Faculty of Arts and Science

#### **GRMN 102 Beginner's German II Units: 3.00**

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).

**Requirements:** Prerequisite (A minimum grade of a C in GRMN 101) or permission of the Department of Languages, Literatures and Cultures. One-Way Exclusion May not be taken with or after GRMN 201; GRMN 202.

**Offering Faculty:** Faculty of Arts and Science

## Global Development Studies (DEVS)

### **DEVS 101 Development Studies in Global Perspective Units: 3.00**

Explores the relationships between global economic integration, technological change, environmental sustainability, political systems, and cultural diversity. Introduces essential interdisciplinary perspectives for complex global challenges from poverty to climate change and builds the foundations for ethical cross-cultural engagement.

LEARNING HOURS 120 (18S;18aO;84P).

**Requirements:** Prerequisite None. Exclusion DEVS 100; DEVS 105.

**Offering Faculty:** Faculty of Arts and Science

### **DEVS 102 Canada in the World Units: 3.00**

Canada in the World will help students build knowledge and analytical capacities in global development, with a focus on Canada. The course examines how processes of global development are differentiated across borders and axes of gender, racialization, and colonization. Students will explore applications of theories of global change.

LEARNING HOURS 120 (18S;18aO;84P).

**Requirements:** Prerequisite DEVS 101 or permission of the instructor. Exclusion DEVS 100.

**Offering Faculty:** Faculty of Arts and Science

## Greek (GREK)

### **GREK 112 Introductory Greek Units: 6.00**

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.

LEARNING HOURS 276 (72L;24T;180P).

**Requirements:** Prerequisite None. Note This course is not normally open to students with 4U Greek.

**Offering Faculty:** Faculty of Arts and Science

## Health Studies (HLTH)

### **HLTH 101 Social Determinants of Health Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion GLPH 171.

**Offering Faculty:** Faculty of Arts and Science

### **HLTH 102 Personal Health and Wellness Units: 3.00**

This course provides an introduction to the variety of factors which could affect a person's health and wellness.

NOTE Also offered at the Bader International Study Centre.

Learning Hours may vary.

LEARNING HOURS 108 (36L;72P).

**Requirements:** Prerequisite None. Exclusion IDIS 199. One-Way Exclusion May not be taken with or after 12.0 units in KNPE (formerly PPHE; PHED; KINE). Note This course is not open to students in a KINE or PHED Plan.

**Offering Faculty:** Faculty of Arts and Science

## Hebrew (HEBR)

### **HEBR 190 Introduction to Modern Hebrew Units: 6.00**

For students with no (or a minimal) background in Hebrew. Introduces elements of grammar and vocabulary of modern Hebrew.

**Requirements:** Prerequisite Permission of the Instructor.

**Offering Faculty:** Faculty of Arts and Science

## History (HIST)

### **HIST 105 Post-Confederation Canada: A History of the Present Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion HIST 124; HIST 260; HIST 279.

**Offering Faculty:** Faculty of Arts and Science

### **HIST 106 The Making of Modern Europe Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion HIST 111; HIST 125.

**Offering Faculty:** Faculty of Arts and Science



**HIST 108 Early Globalization: Contact, Conflict, and Pandemics Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion HIST 122.

**Offering Faculty:** Faculty of Arts and Science

**HIST 109 War and Revolution in the Modern World Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion HIST 122.

**Offering Faculty:** Faculty of Arts and Science

**HIST 110 Europe from Antiquity to the Scientific Revolution Units: 3.00**

Europe has shaped the intellectual, social, and cultural patterns of modern times. This course explores the history of Europe from antiquity through early modernity. Subjects include: the ancient world; the creation of Christendom; medieval scholastic culture; the modern state; religious war; Renaissance; Reformation; and the Scientific Revolution.

LEARNING HOURS 120 (24L;12S;12O;72P).

**Requirements:** Prerequisite None. Exclusion HIST 121; HIST 125.

**Offering Faculty:** Faculty of Arts and Science

**HIST 124 Canada: A History of the Present Units: 6.00**

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).

**Requirements:** Prerequisite None. Exclusion HIST 104; HIST 105; HIST 260; HIST 279.

**Offering Faculty:** Faculty of Arts and Science

**Italian (ITLN)**

**ITLN 111 Beginning Italian I Units: 3.00**

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)

**Requirements:** Prerequisite None. One-Way Exclusion May not be taken with or after ITLN 204; ITLN 205. Equivalency ITLN P10/3.0.

**Offering Faculty:** Faculty of Arts and Science

**ITLN 112 Beginning Italian II Units: 3.00**

The continuation of ITLN 111. 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).

**Requirements:** Prerequisite A minimum grade of C in ITLN 111 or ITLN P10/3.0. Exclusion A maximum of 6.0 units from ITLN 101/6.0; ITLN 111; ITLN 112; ITLN P10/3.0. One-Way Exclusion May not be taken with or after ITLN 204; ITLN 205.

**Offering Faculty:** Faculty of Arts and Science

**Japanese (JAPN)**

**JAPN 100 Introductory Japanese I Units: 6.00**

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 with previous knowledge of the language or who have studied Japanese will not be permitted to enrol.

**Requirements:** Prerequisite Level 1 or (Level 2 or above and a cumulative GPA of 1.90 or higher). Note Students will have their level of competence assessed by the Department of Languages, Literatures and Cultures in September.

**Offering Faculty:** Faculty of Arts and Science



## Languages, Literatures and Cultures (LLCU)

### LLCU 102 Beginning Indigenous Language and Culture II Units: 3.00

Continuation of LLCU 101: 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).

**Requirements:** Prerequisite LLCU 101 in same language.

**Offering Faculty:** Faculty of Arts and Science

### LLCU 103 Beginning Language and Culture I Units: 3.00

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### LLCU 111 Introduction to Cultures Units: 3.00

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;120;72P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## Latin (LATN)

### LATN 110 Introductory Latin Units: 6.00

Fundamentals of grammar, syntax and etymology for students with no or little knowledge of Latin; provides sufficient background to read Latin prose and poetry.

LEARNING HOURS 276 (72L;24T;180P).

**Requirements:** Prerequisite None. Note This course is not normally open to students with 4U Latin.

**Offering Faculty:** Faculty of Arts and Science

## Linguistics (LING)

### LING 100 Introduction to Linguistics Units: 6.00

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## Mathematics (MATH)

### MATH 110 Linear Algebra Units: 6.00

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).

**Requirements:** Prerequisite None. Exclusion MATH 111; MATH 112; MATH 212. Recommended At least one 4U Mathematics course.

**Offering Faculty:** Faculty of Arts and Science

### MATH 111 Linear Algebra Units: 6.00

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).

**Requirements:** Prerequisite None. Exclusion MATH 110; MATH 112. Recommended At least one 4U Mathematics course.

**Offering Faculty:** Faculty of Arts and Science

### MATH 112 Introduction to Linear Algebra Units: 3.00

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).

**Requirements:** Prerequisite None. Exclusion MATH 110; MATH 111. Recommended At least one 4U Mathematics course.

**Course Equivalencies:** MATH 110B/112 / APSC 174

**Offering Faculty:** Faculty of Arts and Science

**MATH 120 Differential and Integral Calculus Units: 6.00**

A thorough discussion of calculus, including limits, continuity, differentiation, integration, multivariable differential calculus, and sequences and series.

LEARNING HOURS 288 (72L;24T;192P).

**Requirements:** Prerequisite None. Exclusion MATH 121; MATH 123; MATH 124; MATH 126. Recommended MHF4U and MCV4U or 4U AFIC or permission of the Department. Note This course is intended for students who plan to pursue a Major or Joint Honours Plan in Mathematics, Statistics, or Physics.

**Offering Faculty:** Faculty of Arts and Science

**MATH 121 Differential and Integral Calculus Units: 6.00**

Differentiation and integration with applications to biology, physics, chemistry, economics, and social sciences; differential equations; multivariable differential calculus.

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 262 (48L;11G;72O).

**Requirements:** Prerequisite None. Exclusion MATH 120; MATH 123; MATH 124; MATH 126. Recommended MHF4U and MCV4U or equivalent, or 4U AFIC, or MATH P06, or permission of the Department. Note This course is intended for students who wish to pursue a Major or Joint Honours Plan in a subject other than Mathematics or Statistics.

**Course Equivalencies:** MATH121; MATH121B;MATH122B

**Offering Faculty:** Faculty of Arts and Science

**MATH 124 Differential and Integral Calculus II Units: 3.00**

Topics include techniques of integration; differential equations, and multivariable differential calculus.

LEARNING HOURS 126 (36L;12T;78P).

**Requirements:** Prerequisite MATH 123 or permission of the Department. Exclusion MATH 120; MATH 121; MATH 126. 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.

**Course Equivalencies:** APSC172, MATH124

**Offering Faculty:** Faculty of Arts and Science

**MATH 126 Differential and Integral Calculus Units: 6.00**

Differentiation and integration of the elementary functions with applications to the social sciences and economics; Taylor polynomials; multivariable differential calculus.

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

**Requirements:** Prerequisite None. Exclusion MATH 120; MATH 121; MATH 123; MATH 124; MATH 126. Note This course is primarily intended for students in the BAH program. Students in the BSCH, BCMPH or BCOM program should not enrol in this course.

**Offering Faculty:** Faculty of Arts and Science

**Mohawk (MOHK)****MOHK 101 Beginning Mohawk Language and Culture I Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion LLCU 101 (Topic Title: Mohawk I). One-Way Exclusion May not be taken with or after MOHK 103; MOHK 104; MOHK 201; MOHK 202.

**Offering Faculty:** Faculty of Arts and Science

**MOHK 102 Beginning Mohawk Language and Culture II Units: 3.00**

A continuation of MOHK 101. 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.

LEARNING HOURS 120 (36L;84P).

**Requirements:** Prerequisite MOHK 101. Exclusion LLCU 102 (Topic Title: Mohawk II). One-Way Exclusion May not be taken with or after MOHK 103; MOHK 104; MOHK 201; MOHK 202.

**Offering Faculty:** Faculty of Arts and Science

**MOHK 103 Oral Mowak Language - Beginning I (TMT) Units: 3.00**

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.

NOTE Only offered in Tyendinaga

LEARNING HOURS 120(108Oc;12P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**MOHK 104 Beginning Mohawk Language and Culture II Tyendinaga Units: 3.00**

This course will be delivered in Tyendinaga and will be a continuation of MOHK 103. 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.

NOTE Only offered in Tyendinaga

LEARNING HOURS 120(108O;12P).

**Requirements:** Prerequisite MOHK 103.

**Offering Faculty:** Faculty of Arts and Science

## Music (MUSC)

**MUSC 100 Small Ensemble Units: 1.50**

Chamber music, collaborative piano, or small ensemble experience for qualified instrumentalists and singers. Topics may vary. Course includes weekly coaching and a minimum of one evaluation concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.

NOTE Student will be registered into the course number that matches their current level of study. (i.e. if a student is in their 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.

**Requirements:** Prerequisite Permission of the School.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 104 Music Fundamentals Units: 3.00**

An introduction to musical notation, ear training, theory and analysis.

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

LEARNING HOURS 123 (36L;3G;36O;48P).

**Requirements:** Prerequisite None. Exclusion MUSC P52. Note Students who hold Royal Conservatory Advanced Rudiments or higher should consult with the School for appropriate course placement. This course cannot be used as credit towards the BMUS Plan.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 112 Medium Ensemble Units: 1.50**

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 (72P;96P).

**Requirements:** Prerequisite Permission of the School upon audition.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 114 Introduction to Teaching Music to Children Units: 3.00**

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.

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

**Requirements:** Prerequisite None. Recommended MUSC 104 or MUSC P52. Note This course cannot be used as credit towards the BMUS Plan.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 115 Large Ensemble Units: 1.50**

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 (72P;96P).

**Requirements:** Prerequisite Permission of the School upon audition.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 124 Applied Music I Units: 6.00**

Private instrumental or vocal instruction for non-MUSC Specialization/Non-MUTH students. Auditions required. NOTE Please contact the DAN School for information about the audition requirements.

NOTE In addition to the regular tuition fee, students are charged an additional fee for private music lessons: estimated cost \$1,600.

NOTE Also offered at the Bader International Study Centre. Learning Hours may vary.

LEARNING HOURS 263 (24Pc;23I;216P).

**Requirements:** Prerequisite Registration is based on a successful audition and permission of the School. Exclusion MUSC 120; MUSC 121; MUSC 125. Note This course is not available to students registered in the MUSC Specialization or MUTH Plan.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 152 Introduction to Vocal Composition Units: 3.00**

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).

**Requirements:** Prerequisite MUSC 104 or MUSC P52 or permission of the School. Exclusion MUSC 153.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 156 Introduction to Digital Audio Recording, Editing, and Mixing Units: 3.00**

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 (24L;24sO;72P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 171 Social History of Popular Music Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 191 Theory and Analysis I Units: 6.00**

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 enrol in the course with permission of the School.

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

**Requirements:** Prerequisite (Registration in a MUTH or MUSC Specialization Plan) or MUSC 105 or (a grade of A- in MUSC 104) or permission of the School.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 255 Electroacoustic Music Composition Units: 6.00**

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.

**Requirements:** Prerequisite None. Recommended Experience in music composition is encouraged but not a prerequisite.

**Offering Faculty:** Faculty of Arts and Science

**MUSC 289 Global Musics Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## Music Theatre (MUTH)

### **MUTH 110 The Republic to Rationalism: History, Arts, and Performance I Units: 3.00**

An introduction to Western music, theatre, art, and literature in historical and global perspective, focusing on drama and music to place artistic creation between 400 BCE-1750 CE in a social and political chronological framework. We will explore Mediterranean Antiquity, European Medievalism, Global Early Modernity, and the European Baroque, weaving in questions of historiography and cultural exchange.

LEARNING HOURS 114 (36L;36O;42P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **MUTH 111 Listening to Revolutions: History, Arts, and Performance II Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **MUTH 160 Music Theatre Ensemble Units: 1.50**

Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.

NOTE Placement is made at the discretion of the School based on an audition or other criteria.

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)

**Offering Faculty:** Faculty of Arts and Science

## Philosophy (PHIL)

### **PHIL 111 What is Philosophy? Units: 6.00**

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 Also offered online. Consult Arts and Science Online.

Learning Hours may vary.

LEARNING HOURS 240 (72L;168P).

**Requirements:** Prerequisite None. Exclusion PHIL 151. Note Students considering a Major or Medial Plan in PHIL are strongly urged to take PHIL 111 or PHIL 115 in their first year of study.

**Course Equivalencies:** PHIL111; PHIL111B

**Offering Faculty:** Faculty of Arts and Science

### **PHIL 151 Great Works of Philosophy Units: 3.00**

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).

**Requirements:** Prerequisite None. Exclusion PHIL 111.

**Offering Faculty:** Faculty of Arts and Science

### **PHIL 153 The State and the Citizen Units: 3.00**

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 (36L;84P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **PHIL 157 Moral Issues Units: 3.00**

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 120 (24L;12G;84P).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## Physics (PHYS)

### **PHYS 104 Fundamental Physics Units: 6.00**

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).

**Requirements:** Prerequisite None. Corequisite (MATH 120 or MATH 121 or [MATH 123 and MATH 124]). Exclusion PHYS 106; PHYS 115; PHYS 116; PHYS 117/6.0; PHYS 118; PHYS 119. Recommended 4U Physics.

**Offering Faculty:** Faculty of Arts and Science



### **PHYS 106 General Physics Units: 6.00**

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 College, UK. Learning Hours may vary.

LEARNING HOURS 240 (72L;36Lb;36T;96P).

**Requirements:** Prerequisite None. Corequisite (MATH 120 or MATH 121 or [MATH 123 and MATH 124]). Exclusion PHYS 104; PHYS 115; PHYS 116; PHYS 117/6.0; PHYS 118; PHYS 119. Recommended 4U Physics.

**Offering Faculty:** Faculty of Arts and Science

### **PHYS 115 Introduction to Physics I Units: 3.00**

An algebra-based course dealing with basic physics concepts, including dynamics, fluids, and basic thermodynamics.

PHYS 115 includes a required lab component.

NOTE PHYS 115 and PHYS 116 together, are equivalent to PHYS 117/6.0.

NOTE Manual: estimated cost \$15.

LEARNING HOURS 132 (36L;12Lb;12T;72P).

**Requirements:** Prerequisite None. Exclusion PHYS 104; PHYS 106; PHYS 117/6.0; PHYS 118; PHYS 119.

**Offering Faculty:** Faculty of Arts and Science

### **PHYS 116 Introduction to Physics II Units: 3.00**

An algebra-based course dealing with basic physics concepts, including waves, electromagnetism, and basic optics.

PHYS 116 includes a required lab component.

NOTE PHYS 115 and PHYS 116 together, are equivalent to PHYS 117/6.0.

NOTE Manual: estimated cost \$15.

LEARNING HOURS 132 (36L;12Lb;12T;72P).

**Requirements:** Prerequisite PHYS 115. Exclusion PHYS 104; PHYS 106; PHYS 117/6.0; PHYS 118; PHYS 119.

**Offering Faculty:** Faculty of Arts and Science

## **Political Studies (POLS)**

### **POLS 110 Introduction to Politics and Government Units: 6.00**

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.

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## **Portuguese (PORT)**

### **PORT 103 Beginning Portuguese and Culture I Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **PORT 104 Beginning Portuguese and Culture II Units: 3.00**

Continuation of PORT 103. 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).

**Requirements:** Prerequisite PORT 103.

**Offering Faculty:** Faculty of Arts and Science

## **Psychology (PSYC)**

### **PSYC 100 Principles of Psychology Units: 6.00**

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 clinical 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).

**Requirements:** Prerequisite None. Exclusion PSYC 101; PSYC 102; PSYC 103.

**Course Equivalencies:** PSYC100; PSYC100B

**Offering Faculty:** Faculty of Arts and Science

## Religious Studies (RELS)

### **RELS 131 World Religions/Religious Worlds Units: 6.00**

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)

**Requirements:** Prerequisite None.

**Course Equivalencies:** RELS131; RELS131B

**Offering Faculty:** Faculty of Arts and Science

### **RELS 137 Religion and Film Units: 3.00**

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.

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

**Requirements:** Prerequisite None. Equivalency RELS 237.

**Offering Faculty:** Faculty of Arts and Science

### **RELS 162 Religion, News and Media Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **RELS 163 Religion and Popular Culture Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

## Sociology (SOCY)

### **SOCY 122 Introduction to Sociology Units: 6.00**

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).

**Requirements:** Prerequisite None.

**Course Equivalencies:** SOCY122; SOCY122B

**Offering Faculty:** Faculty of Arts and Science

## Spanish (SPAN)

### **SPAN 111 Beginning Spanish I Units: 3.00**

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).

**Requirements:** Prerequisite None. One-Way Exclusion May not be taken with or after SPAN 112; SPAN 201; SPAN 204; SPAN 205; SPAN 301; SPAN 302; SPAN 303; SPAN 304; SPAN 401; SPAN 402. Equivalency SPAN P10.

**Offering Faculty:** Faculty of Arts and Science

### **SPAN 112 Beginning Spanish II Units: 3.00**

The continuation of SPAN 111. 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).

**Requirements:** Prerequisite A minimum grade of a C in (SPAN 111 or SPAN P10). Exclusion A maximum of 6.0 units from SPAN P10; SPAN 101; SPAN 111; SPAN 112. One-Way Exclusion May not be taken with or after SPAN 201; SPAN 204; SPAN 205; SPAN 301; SPAN 302; SPAN 303; SPAN 304; SPAN 401; SPAN 402.

**Offering Faculty:** Faculty of Arts and Science

## Elective Courses

The courses listed below can be used **only** as electives and will **not** lead to a plan. It is recommended that first-year students take **a maximum of 6.00 units** of elective courses.



## Astronomy (ASTR)

### **ASTR 101 Astronomy I: Solar System Units: 3.00**

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.

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **ASTR 102 Astronomy II: Stars, Galaxies, and the Universe Units: 3.00**

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.

**Requirements:** Prerequisite (ASTR 101 or PHYS 104 or PHYS 106 or PHYS 117 or PHYS 118) or (APSC 111 and APSC 112) or PHYS P15 or permission of the Department.

**Offering Faculty:** Faculty of Arts and Science

## Biology (BIOL)

### **BIOL 111 Ecology and the Environment Units: 3.00**

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)

**Requirements:** Prerequisite None. One-Way Exclusion May not be taken with or after BIOL 300; BIOL 302; BIOL 303.

**Offering Faculty:** Faculty of Arts and Science

## Computer and Information Science (CISC)

### **CISC 151 Elements of Computing with Data**

#### **Analytics Units: 3.00**

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; alternative to CISC 101 and CISC 110.

LEARNING HOURS 120 (36L;84P).

**Requirements:** Prerequisite None. Exclusion APSC 142; APSC 143; CISC 101; CISC 110. One-Way Exclusion May not be taken with or after CISC 121; CISC/CMPE/COCA/COGS/SOFT at the 200-level or above.

**Offering Faculty:** Faculty of Arts and Science

## English Language and Literature (ENGL)

### **ENGL 160 Modern Prose Fiction Units: 6.00**

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 This course cannot be counted toward an ENGL Plan nor used as a prerequisite for upper-year ENGL courses.

LEARNING HOURS 240 (72L;168P).

**Requirements:** Prerequisite Level 2 or above or permission of the Department. Note This course is not open to students registered in an ENGL Plan.

**Offering Faculty:** Faculty of Arts and Science

## Entrepreneurship and Innovation (ENIN)

### **ENIN 140 Design Thinking Units: 3.00**

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 Also offered online. Consult Arts and Science Online.

Learning Hours may vary.

LEARNING HOURS 120 (72O;48P).

**Requirements:** Prerequisite None. Equivalency FILM 140.

**Offering Faculty:** Faculty of Arts and Science



## Geology (GEOL)

### **GEOL 102 Gemstones: Their Art, History, and Science Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **GEOL 106 Environmental Geology and Natural Hazards Units: 3.00**

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).

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science