

# **Academic Programs Committee of Council**

# **University Course Challenge**

**Scheduled posting: December 2023** 

The following types of curricular and program changes are approved by the University Course Challenge -- additions and deletions of courses, lower levels of study and program options; straightforward program changes; and curricular changes which affect other colleges.

## Contents include submissions for information and approval from the following colleges:

College of Agriculture and Bioresources
College of Arts and Science
College of Education
College of Engineering
College of Graduate and Postdoctoral Studies
College of Nursing
Edwards School of Business
School of Environment and Sustainability

**Approval:** Date of circulation: December 14, 2023

Date of effective approval if no challenge received: December 31, 2023

## **Next scheduled posting:**

The next scheduled posting will be January 16, 2024 with a submission deadline of **January 11**, **2024.** Urgent items can be posted on request.

Please direct challenges to both of the following: <a href="mailto:seanine.warrington@usask.ca">seanine.warrington@usask.ca</a> in Registrarial Services and <a href="mailto:amanda.storey@usask.ca">amanda.storey@usask.ca</a> in the Governance Office.

### College of Agriculture and Bioresources, Submission to University Course Challenge December 2023

The curricular revisions listed below were approved through the College of Agriculture and Bioresources Undergraduate Affairs Committee, and are now submitted to the University Course Challenge for approval.

### **New Course Proposals:**

## AREC 261.3 Agricultural Data Analytics I

An introduction to probability, statistics, and data management with application to modern agriculture. Topics covered will include the basics of probability, probability distributions, hypothesis testing, correlation, causation, and data management. Through weekly labs students will build skills in spreadsheet software and will perform hypothesis tests on agricultural data.

#### Rationale:

In the past decade the agricultural sector has experienced a data revolution. Modern farming equipment, remote sensors, and large public datasets give agribusiness professionals an extraordinary amount of data on an agricultural operation. Success in agribusiness will increasingly rely on an individual's ability to manage and analyze this vast data. An employer survey by the Department of Agricultural and Resource Economics highlighted the need for graduates with data management and analysis skills.

The introduction of AREC 261 is part of an extensive curriculum overhaul that will provide agribusiness and agricultural economics students with the advanced skills in data management, statistics, and econometrics required in the job market.

As part of this new curriculum, most classes within the agribusiness and agricultural economics programs will contain a data management and econometrics module. These modules will give students hands-on experience using empirical methods to solve real-world agribusiness problems.

AREC 261 will introduce students to agricultural data, statistics, and introductory econometrics. The class will give students hands-on experience handling and manipulating agricultural data, primarily through Excel. The concept of statistical testing will be taught using real-world agricultural data. Finally, the class will briefly introduce regression analysis and other econometric methods.

AREC 261 will form a two-class sequence (alongside AREC 361: Intermediate Statistics and Decision-Making) in data and econometrics for agribusiness and agricultural economics majors. As mentioned, the content in these classes will provide students with the background to complete data modules in elective courses within the Department of Agricultural and Resource Economics.

The class is distinct from course offerings in Statistics and Plant Science, as it introduces students to data management alongside statistical topics. Statistical concepts will be grounded in an agribusiness framework through the use of agricultural data. The class will also prepare students for econometric topics taught in AREC 361.

## PLSC 205.3 Principles and Management of Agricultural Equipment

This course provides an introduction to agricultural equipment used for grain, forage, and livestock

production in western Canada. Students will learn, from industry representatives and experienced operators, the appropriate selection, operation, maintenance, and management of farm equipment. Emphasis will be placed on tractors, tillage and seeding equipment, chemical application, forage harvesting, grain harvesting and livestock feeding equipment. The course will consist of a practicum (site visit every two weeks) that will allow students to gain a practical understanding of equipment design and function.

Prerequisite: AGRC 110.3 or AGRC 111.3 or AGRC 112.3

#### Rationale:

Many of our students in agronomy and animal production will work on the farm or directly with growers. These students will need to have a good understanding of how the various types of agricultural equipment functions, including the design and management of such equipment. Farm equipment design changes quickly, and so exposing students to the changes in form and function is critical to students who will farm, but will also enhance the understanding of equipment function and potential limitations when working with growers to make agronomic decisions. Further, a basic understanding of maintenance is also important, but only a limited amount of information will be offered in this course.

A previous version of this course had been offered for many years by Engineering (BLE 205), but this course has been discontinued on retirement of the teaching faculty member. The need for this course remains and as such, Plant Sciences has been approached by the College of Agriculture and Bioresources Dean's office as the home for this course.

#### **Course Changes:**

## AREC 361.3: Intermediate Statistics and Decision Making AREC 262.3 Agricultural Data Analytics II

Focuses on analysis of agricultural management and marketing issues using statistical methods. Topics include: data collection, estimation, and test of hypotheses in regression analysis; use of binary variables and non-linear regression. Elementary econometrics is also introduced.

The second course in the agricultural data analytics sequence will build on the foundations developed in AREC 261. Students will deepen their proficiency in data analysis, and develop further skills in regression modeling, managing extensive datasets, machine learning techniques, forecasting, and causal evaluation. Through these topics, students will be exposed to the frontiers of agricultural data analysis.

Weekly hours: 3 Lecture hours and 2.5 Practicum/Lab hours

Prerequisite(s): PLSC 214.3 or STAT 245.3 AREC 261.3

Note: Students with credit for BPBE 361 cannot take this course for credit.

**Rationale:** The change to the course name, number, description and prerequisite are designed to link AREC 262.3 to the newly proposed AREC 261.3 in a two-course sequence of data and econometrics. The change to the prerequisite also reflects the proposed removal of PLSC 214 or STAT 245 as requirements for the B.Sc. Agribusiness Honours, B.Sc. Agribusiness, B.S.A. Honours in Agricultural Economics, and the B.S.A. in Agricultural Economics.

### **AREC 440.3: Agricultural Marketing Systems**

Examines the agricultural marketing system from analytical and strategic perspectives. The economic implications of collective marketing strategies are examined, including generic advertising, co-operatives and supply management marketing boards. Information asymmetry in agri-food supply chains is

explored, including the role of commodity grades, labelling, identity preservation, and traceability. The organization of supply chains is examined, including an exploration of the growth of contracting.

Weekly hours: 3 Lecture hours

Prerequisite(s): AREC 315.3 AREC 272.3 or ECON 211.3 (AREC 342.3 is recommended).

Note: Students with credit for BPBE 440 cannot take this course for credit.

**Rationale:** The change to the prerequisite ensures that students will have the necessary academic preparation to succeed in the course.

## **AREC 451.3: Agricultural Policy Analysis**

This course reviews numerous agricultural policies using economic models to analyze how these policies impact agricultural markets, economic growth, and rent seeking within agricultural supply chains. The course enables students to develop a working knowledge of current Canadian agricultural policy, while developing the analytical skills needed to critically examine agricultural policy beyond the examples explored in the course.

Weekly hours: 3 Lecture hours

Prerequisite(s): AREC 315 AREC 272.3 or ECON 211.3 (AREC 342.3 is recommended).

Note: Students with credit for BPBE 451 cannot take this course for credit.

**Rationale:** The change to the prerequisite ensures that students will have the necessary academic preparation to succeed in the course.

## **Program Revisions:**

#### **Agribusiness**

Bachelor of Science in Agribusiness - Honours [B.Sc.(Agbus.) Honours]

### Minimum Requirements for Degree (120 credit units)

Admission to Honours is restricted to students having an approved Honours program, a recommendation from the supervising department, and a cumulative weighted average of 70% or better on a minimum of 60 credit units in B.Sc. (Agbus.) credited courses at the time of application. Students must officially apply for admission to an Honours program through the Office of the Dean of Agriculture and Bioresources before the start of Year Four at the latest.

## Year 1 - Fall Term (15 credit units)

- AGRC 111.3 Introduction to Plant and Soil Sciences
- **ECON 111.3** Introductory Microeconomics

#### **Choose 3 credit units from the following:**

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 421.3

- CPSJ 203.3 Cultivating Humanity
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- **ENG 113.3** Literature and Composition Reading Narrative
- **ENG 114.3** Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 Indigenous Governance and Self Determined Sustainable Development
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices

- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

### **Choose 3 credit units from the following:**

- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 120.3 Introduction to Global Environmental Systems or GEOG 125.3 Environmental Science and Society
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level

## **Choose 3 credit units from the following:**

## **Humanities, Social Sciences, and Fine Arts Requirement**

#### **Humanities**

- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level

- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

## **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level

• MUS — 100-Level, 200-Level, 300-Level, 400-Level

### Year 1 - Winter Term (15 credit units)

- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Introduction to Agri Food Economics
- **ECON 114.3** Introductory Macroeconomics

## **Choose 3 credit units from the following:**

- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 120.3 Introduction to Global Environmental Systems or GEOG 125.3 Environmental Science and Society
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level

## **Choose 3 credit units from the following:**

## **Humanities, Social Sciences, and Fine Arts Requirement**

#### **Humanities**

- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- <u>CREE</u> <u>100-Level</u>, <u>200-Level</u>, <u>300-Level</u>, <u>400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level

- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
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- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

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Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

#### **Fine Arts**

• ART — 100-Level, 200-Level, 300-Level, 400-Level

- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

### Year 2 (30 credit units)

- AREC 261.3 Agricultural Data Analytics I
- AREC 262.3 Agricultural Data Analytics II
- AREC 272.3 Introduction to Agricultural Economics
- COMM 101.3 Introduction to Business
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- **ECON 211.3** Intermediate Microeconomics
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 121.3 or MATH 125.3 Mathematics for the Life Sciences
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- RCM 200.3 Effective Professional Communication

Note: Students in this program may be required to take <u>ECON 211.3</u> Intermediate Microeconomics to meet upper year course requirements.

Note: If you excel in mathematics, you are encouraged to take <u>MATH 110.3</u> Calculus I rather than <u>MATH</u> 104.3 Elementary Calculus

#### **Open Electives**

Choose 6 3 credit units of Open Electives.

Note: Students in this program must take <u>ECON 214.3</u> Intermediate Macroeconomics as an open or restricted elective prior to taking <u>ECON 408.3</u> Econometrics 1.

## Years 3 and 4 (60 credit units)

- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 322.3 Agricultural Finance
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 343.3 Grain and Livestock Marketing
- AREC 347.3 Agribusiness Marketing Management
- AREC 494.6 Research and Technical Writing Honours Thesis

- AREC 495.3 Agribusiness Venture Management or AREC 428.3 Case Studies in Agribusiness Management
- COMM 201.3 Introduction to Financial Accounting
- ECON 304.3 Introduction to Empirical Economics and ECON 408.3 Econometrics 1
- MATH 164.3 Introduction to Linear Algebra

### **Open Electives**

Choose 6 credit units of Open Electives.

Note: Students in this program must take <u>ECON 214.3</u> Intermediate Macroeconomics as an open or restricted elective prior to taking <u>ECON 408.3</u> Econometrics 1.

### **Restricted Electives**

Choose 18 credit units restricted electives from the following: 12 of the 18 credit units must be AREC 400-level.

- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 222.3 Introduction to Farm Business Management
- AREC 230.3 Innovation and Entrepreneurship
- AREC 238.3 Natural Resource Economics
- AREC 251.3 Introduction to Agricultural Policy
- AREC 254.3 Agribusiness Taxation
- AREC 344.3 Follow the Grain
- AREC 346.3 Principles of Selling
- <u>AREC 348.3</u> Food Economics and Consumer Behaviour (can be used as a 400-level restricted elective)
- AREC 354.3 Economic Decision Analysis in Agribusiness
- AREC 356.3 The Economics of International Agribusiness (can be used as a 400-level restricted elective)
- AREC 395.3
- AREC 400.3
- AREC 420.3 Operations Management for Agriculture
- AREC 428.3 Case Studies in Agribusiness Management
- AREC 430.3 Advanced Natural Resource Economics

- AREC 432.3 Rural Development Theory and Applications
- AREC 433.3
- AREC 434.3
- AREC 435.3
- AREC 440.3 Agricultural Marketing Systems
- AREC 445.3
- AREC 451.3 Agricultural Policy Analysis
- AREC 459.3 The Economics of Agricultural Innovation
- AREC 495.3 Agribusiness Venture Management
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 210.3 Introduction to Management Accounting
- COMM 304.3 Introduction to Business Law
- COMM 340.3 Introduction to International Business
- COMM 342.3 Organization Structure and Design
- COMM 345.3 Business and Public Policy
- <u>COMM 347.3</u> Indigenous Business in Canada
- COMM 354.3 Consumer Behaviour
- COMM 357.3 Marketing Research
- **COMM 363.3** Intermediate Corporate Finance
- <u>COMM 368.3</u> Entrepreneurial Finance and Venture Capital
- COMM 456.3 International Marketing
- ECON 214.3 Intermediate Macroeconomics
- PLSC 214.3 Statistical Methods
- RCM 400.3 Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric
- RCM 402.3 Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication
- RCM 406.3 Studies in Communication Series
- RCM 407.3 Rhetorical Editing

- RCM 408.3 Rhetorical Composition Writing for the Public
- RCM 409.3 Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship
- RRM 312.3 Natural Resource Management and Indigenous Peoples

Note: Students in the AgBus B. Sc. Honours program will be required to take Econ 214.3 as an open or restricted elective prior to taking **ECON 408.3** Econometrics 1.

### **Agribusiness**

Bachelor of Science in Agribusiness [B.Sc.(Agbus.)]

## Minimum Requirements for Degree (120 credit units)

## Year 1 - (30 credit units)

- AGRC 111.3 Introduction to Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Introduction to Agri Food Economics
- **COMM 101.3** Introduction to Business
- **ECON 111.3** Introductory Microeconomics
- **ECON 114.3** Introductory Macroeconomics
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 121.3 or MATH
   125.3 Mathematics for the Life Sciences

Note: If you excel in mathematics, you are encouraged to take <u>MATH 110.3</u> Calculus I rather than <u>MATH</u> 104.3 Elementary Calculus.

## **Choose 3 credit units from the following:**

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 421.3
- **CPSJ 203.3** Cultivating Humanity
- **ENG 111.3** Literature and Composition Reading Poetry
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- HIST 193.3 History Matters Topics in Canadian History
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- PHIL 120.3 Knowledge Mind and Existence
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- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

## **Choose 3 credit units from the following:**

- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- <u>GEOG 120.3</u> Introduction to Global Environmental Systems or <u>GEOG 125.3</u> Environmental Science and Society
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level

# Choose 3 credit units from the following:

### **Humanities, Social Sciences, and Fine Arts Requirement**

#### **Humanities**

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
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- JPNS 100-Level, 200-Level, 300-Level, 400-Level
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- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level

- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

#### **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

### Year 2 (30 credit units)

• AREC 222.3 Introduction to Farm Business Management

- AREC 261.3 Agricultural Data Analytics I
- AREC 262.3 Agricultural Data Analytics II
- AREC 272.3 Introduction to Agricultural Economics
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- <u>COMM 204.3</u> Introduction to Marketing
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- RCM 200.3 Effective Professional Communication

### **Choose 3 credit units from the following:**

- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 120.3 Introduction to Global Environmental Systems or GEOG 125.3 Environmental Science and Society
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level

#### **Choose 3 credit units from the following:**

## **Humanities, Social Sciences, and Fine Arts Requirement**

#### **Humanities**

- CHIN 100 Level, 200 Level, 300 Level, 400 Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- CREE 100 Level, 200 Level, 300 Level, 400 Level
- ENG 100 Level, 200 Level, 300 Level, 400 Level
- FREN 100 Level, 200 Level, 300 Level, 400 Level
- GERM 100 Level, 200 Level, 300 Level, 400 Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100 Level, 200 Level, 300 Level, 400 Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level. 200-Level. 300-Level. 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level

- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level. 200-Level. 300-Level. 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100 Level, 200 Level, 300 Level, 400 Level
- SNSK -- 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100 Level, 200 Level, 300 Level, 400 Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100 Level, 200 Level, 300 Level, 400 Level
- LING 100 Level, 200 Level, 300 Level, 400 Level
- PLAN 100 Level, 200 Level, 300 Level, 400 Level
- POLS 100 Level, 200 Level, 300 Level, 400 Level
- PSY 100 Level, 200 Level, 300 Level, 400 Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC -- 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100 Level, 200 Level, 300 Level, 400 Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

#### Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

### **Open Electives**

Choose 3 credit units of Open Electives.

### Years 3 and 4 (60 credit units)

- AREC 315.3 Application of Microeconomic Theory to Agriculture
- **AREC 322.3** Agricultural Finance
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 343.3 Grain and Livestock Marketing
- AREC 347.3 Agribusiness Marketing Management
- AREC 361.3 Intermediate Statistics and Decision Making
- AREC 495.3 Agribusiness Venture Management or AREC 428.3 Case Studies in Agribusiness Management

### **Choose 3 credit units from the following:**

**Humanities, Social Sciences, and Fine Arts Requirement** 

#### **Humanities**

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level

- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

### **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

### **Open Electives**

Choose 18 credit units of Open Electives.

#### **Restricted Electives**

Choose 21 24 credit units of restricted electives, which may include an emphasis:

Note: Minimum 12 credit units must be at the 400-level. Maximum of 6 credit units of 400-level RCM classes may be taken to fulfill this requirement. Of the 21 24 credit units of restricted electives, students may take a maximum of 6 credit units of 400-level RCM classes OR AGRC 445.3 Experiential Learning in the Workplace and 3 credit units of 400-level RCM classes.

### Please choose Restricted Electives from the following:

### **Emphasis**

Students may use their restricted electives to take courses to achieve a general level of knowledge in agribusiness and economics, or they can choose to take a more prescribed set of courses within the curriculum that gives them greater depth of knowledge in specific areas within agricultural economics and agribusiness management. To achieve this, students may choose one of three emphases as part of their restricted electives. An emphasis consists of five courses including one at the 200-level, two at the 300-level and two at the 400-level.

### **Farm Business Management**

- AREC 230.3 Innovation and Entrepreneurship
- AREC 254.3 Agribusiness Taxation
- AREC 420.3 Operations Management for Agriculture
- AREC 435.3
- AREC 451.3 Agricultural Policy Analysis
- **COMM 211.3** Human Resource Management

- <u>COMM 306.3</u> Ethics and Strategic Decision Making
- **COMM 229.3** Personal Financial Management

### **Economics and Policy**

- AREC 238.3 Natural Resource Economics
- AREC 251.3 Introduction to Agricultural Policy
- AREC 315.3 Advanced Application of Microeconomic Theory to Agriculture
- AREC 348.3 Food Economics and Consumer Behaviour (can be used as a 400-level restricted elective)
- AREC 356.3 The Economics of International Agribusiness (can be used as a 400-level restricted elective)
- AREC 445.3
- AREC 451.3 Agricultural Policy Analysis
- AREC 459.3 The Economics of Agricultural Innovation
- ECON 211.3 Intermediate Microeconomics
- ECON 304.3 Introduction to Empirical Economics
- ECON 350.3 Economics of Public Expenditures
- ECON 354.3 International Trade and Commercial Policy
- ECON 373.3 Topics in Intermediate Microeconomic Theory
- ECON 412.3
- One of <u>POLS 226.3</u> Canadian Public Policy; <u>POLS 305.3</u> Provincial Politics and Policy; <u>POLS 328.3</u> Public Policy Analysis

## **Agribusiness Marketing and Management**

- AREC 230.3 Innovation and Entrepreneurship
- AREC 344.3 Follow the Grain
- AREC 346.3 Principles of Selling
- AREC 348.3 Food Economics and Consumer Behaviour (can be used as a 400-level restricted elective)
- AREC 354.3 Economic Decision Analysis in Agribusiness
- AREC 356.3 The Economics of International Agribusiness (can be used as a 400-level restricted elective)
- AREC 420.3 Operations Management for Agriculture
- AREC 428.3 Case Studies in Agribusiness Management or AREC 495.3 Agribusiness Venture Management
- AREC 440.3 Agricultural Marketing Systems
- COMM 205.3 Introduction to Operations Management
- COMM 211.3 Human Resource Management
- **COMM 306.3** Ethics and Strategic Decision Making
- COMM 357.3 Marketing Research
- COMM 495.3 Supply Chain Management
- RCM 404.3 Leadership as Communication

### **Restricted Electives**

Choose 21 24 credit units of restricted electives from the following, which may include an emphasis.

Note: Minimum 12 credit units must be at the 400-level. Maximum of 6 credit units of 400-level RCM classes may be taken to fulfill this requirement. Of the 21 24 credit units of restricted electives, students may take a maximum of 6 credit units of 400-level RCM classes OR AGRC 445.3 Experiential Learning in

the Workplace and 3 credit units of 400-level RCM classes.

- AGRC 445.3 Experiential Learning in the Workplace
- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 230.3 Innovation and Entrepreneurship
- AREC 238.3 Natural Resource Economics
- AREC 251.3 Introduction to Agricultural Policy
- AREC 254.3 Agribusiness Taxation
- AREC 315.3 Advanced Application of Microeconomic Theory to Agriculture
- AREC 344.3 Follow the Grain
- AREC 346.3 Principles of Selling
- AREC 348.3 Food Economics and Consumer Behaviour (can be used as a 400-level restricted elective)
- AREC 354.3 Economic Decision Analysis in Agribusiness
- AREC 356.3 The Economics of International Agribusiness (can be used as a 400-level restricted elective)
- AREC 395.3
- AREC 400.3
- AREC 420.3 Operations Management for Agriculture
- AREC 428.3 Case Studies in Agribusiness Management
- AREC 430.3 Advanced Natural Resource Economics
- AREC 432.3 Rural Development Theory and Applications
- AREC 433.3
- AREC 434.3
- AREC 435.3
- AREC 440.3 Agricultural Marketing Systems
- AREC 445.3
- AREC 451.3 Agricultural Policy Analysis
- AREC 459.3 The Economics of Agricultural Innovation
- AREC 495.3 Agribusiness Venture Management
- **COMM 105.3** Introduction to Organizational Behaviour
- COMM 205.3 Introduction to Operations Management
- COMM 210.3 Introduction to Management Accounting
- **COMM 211.3** Human Resource Management
- COMM 229.3 Personal Financial Management
- COMM 304.3 Introduction to Business Law
- **COMM 306.3** Ethics and Strategic Decision Making
- COMM 340.3 Introduction to International Business
- COMM 342.3 Organization Structure and Design
- COMM 345.3 Business and Public Policy
- <u>COMM 347.3</u> Indigenous Business in Canada
- COMM 354.3 Consumer Behaviour
- COMM 357.3 Marketing Research
- COMM 363.3 Intermediate Corporate Finance
- COMM 368.3 Entrepreneurial Finance and Venture Capital
- COMM 456.3 International Marketing

- COMM 495.3 Supply Chain Management
- ECON 211.3 Intermediate Microeconomics
- ECON 304.3 Introduction to Empirical Economics
- ECON 350.3 Economics of Public Expenditures
- ECON 354.3 International Trade and Commercial Policy
- ECON 373.3 Topics in Intermediate Microeconomic Theory
- ECON 412.2
- PLSC 214.3 Statistical Methods
- One of <u>POLS 226.3</u> Canadian Public Policy; <u>POLS 305.3</u> Provincial Politics and Policy; <u>POLS 328.3</u> Public Policy Analysis
- RCM 400.3 Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric
- RCM 402.3 Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication
- RCM 406.3 Studies in Communication Series
- RCM 407.3 Rhetorical Editing
- RCM 408.3 Rhetorical Composition Writing for the Public
- RCM 409.3 Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship
- RRM 312.3 Natural Resource Management and Indigenous Peoples

### **Resource Economics and Policy**

Bachelor of Science in Renewable Resource Management [B.Sc.(RRM)]

Sustainable use of our land, water and plant resources is increasingly recognized as a key societal goal in the 21st Century. Management of these resources requires a combination of applied science and management skills with an understanding of the broad societal context. Renewable Resource Management provides essential skills in resource management coupled with a broader understanding of the role of management in society. The Resource Economics and Policy field of study involves the development of policies directly relevant to the management of bioresources.

## Minimum Requirements for Degree (120 credit units)

### Year 1 (30 credit units)

- 3 credit units open electives
- AGRC 113.3 Introduction to Agri Food Economics
- BIOL 120.3 The Nature of Life or BIOL 121.3 The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- <u>ECON 111.3</u> Introductory Microeconomics
- **EVSC 110.3** Renewable Resources and Environment
- GEOG 120.3 Introduction to Global Environmental Systems or GEOL 206.3 Earth Systems

- INDG 107.3 Introduction to Canadian Indigenous Studies
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- RRM 114.3 Introductory Resource Economics and Policy

### Year 2 (30 credit units)

- 96 credit units open electives
- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 238.3 Natural Resource Economics
- AREC 261.3 Agricultural Data Analytics I
- AREC 262.3 Agricultural Data Analytics II
- AREC 272.3 Introduction to Agricultural Economics
- ENVS 201.3 Foundations of Sustainability
- **GEOG 280.3** Environmental Geography
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- RCM 200.3 Effective Professional Communication

### Year 3 (30 credit units)

- 69 credit units open electives
- AREC 315.3 Application of Microeconomic Theory to Agriculture or ECON 277.3 Economics of the Environment
- AREC 361.3 Intermediate Statistics and Decision Making
- RRM 201.1 Geographical Information Systems
- RRM 312.3 Natural Resource Management and Indigenous Peoples
- RRM 323.2 Resource Data and Environmental Modeling
- one of <u>GEOG 385.3</u> Analysis of Environmental Management and Policy Making, <u>GEOG</u>
   <u>386.3</u> Environmental Impact Assessment or <u>ENVE 381.3</u> Sustainability and Environmental Assessment

#### **Choose 9 credit units of restricted electives:**

### **Emphasis**

Students may use their restricted electives to take courses to achieve a general level of knowledge in resource economics and management, or they can choose to take a more prescribed set of courses within the curriculum that gives them greater depth of knowledge in specific areas of natural resource

management, assessment and development. To achieve this, students may choose one emphasis from the four offered as part of their restricted electives. An emphasis consists of five courses from the prescribed list.

## **Indigenous Resource Management**

- ASKI 102.3 Introduction to Legal Concepts in Resource Management
- ASKI 103.3 Legal Process and Instruments in Resource Management
- <u>ASKI 202.1</u> Introduction to Land Management Frameworks and <u>ASKI 204.2</u> Introduction to the Duty to Consult
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- INDG 241.3 Weaving Indigenous Science and Western Science
- INDG 265.3 Aboriginal People and Development
- **INDG 362.3** Aboriginal People and Northern Development
- POLS 222.3 Indigenous Governance and Politics
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs

### Sustainable Water/Energy/Food Systems

- AGRC 211.3 Global Food Security
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 225.3 Hydrology of Canada
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- PLAN 329.3

### **Environmental Impact Assessment and Policy**

- AREC 451.3 Agricultural Policy Analysis
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- INDG 321.3 International Indigenous Disaster Risk Reduction
- POLS 226.3 Canadian Public Policy
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs
- TOX 321.3 Risk Assessment and Regulatory Toxicology

#### **Development and the Environment**

- ECON 270.3 Development in Non Industrialized Countries
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 208.3 World Regional Development
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- **GEOG 386.3** Environmental Impact Assessment
- **INDG 265.3** Aboriginal People and Development
- **INDG 361.3** Indigenous Community Development in the 21st Century

#### **Restricted Electives**

- AGRC 111.3 Introduction to Plant and Soil Sciences
- AGRC 211.3 Global Food Security
- ANBI 375.3 Animals and the Environment
- ANBI 420.3 Comparative Animal Endocrinology
- ANTH 111.3 One World Many Peoples Introduction to Cultural Anthropology
- ANTH 224.3 North American Plains Ethnography
- ANTH 329.3 Environmental Anthropology
- AREC 238.3 Natural Resource Economics
- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 430.3 Advanced Natural Resource Economics
- AREC 432.3 Rural Development Theory and Applications
- AREC 451.3 Agricultural Policy Analysis
- ASKI 102.3 Introduction to Legal Concepts in Resource Management
- ASKI 103.3 Legal Process and Instruments in Resource Management
- <u>ASKI 202.1</u> Introduction to Land Management Frameworks and <u>ASKI 204.2</u> Introduction to the Duty to Consult
- BIOL 323.3 Plant Systematics and Evolution
- BIOL 412.3 Limnology
- BIOL 424.3
- BIOL 475.3 Ecological Toxicology
- CHEM 375.3 Environmental Chemistry
- COMM 201.3 Introduction to Financial Accounting
- COMM 347.3 Indigenous Business in Canada
- ECON 211.3 Intermediate Microeconomics
- ECON 231.3 Co operatives
- ECON 270.3 Development in Non Industrialized Countries
- ECON 275.3 Economics of Natural Resources
- ECON 277.3 Economics of the Environment
- ECON 347.3
- ENVE 381.3 Sustainability and Environmental Assessment
- ENVE 432.3 Land Management and Reclamation
- EVSC 220.3 Environmental Soil Science
- EVSC 380.3 Grassland Soils and Vegetation
- FABS 212.3 Agrifood and Resources Microbiology OR BMSC 210.3 Microbiology
- FABS 360.3
- FABS 430.3
- GEOG 150.3 Introduction to the Circumpolar World
- GEOG 208.3 World Regional Development
- GEOG 225.3 Hydrology of Canada
- GEOG 233.3 Weather and Climate
- GEOG 235.3 Earth Processes and Natural Hazards A Canadian Perspective
- GEOG 240.3 Sustainable Cities and Regions

- GEOG 271.3
- GEOG 280.3 Environmental Geography
- GEOG 323.3 Remote Sensing
- GEOG 328.3 Groundwater Hydrology
- GEOG 332.3
- GEOG 351.3 Northern Environments
- GEOG 352.3
- GEOG 371.3
- GEOG 380.3 Environmental Geography of the Circumpolar North
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 462.3
- GEOL 121.3 Earth Processes
- GEOL 312.3
- GEOL 330.3 Climate History
- HIST 170.6
- INDG 241.3 Weaving Indigenous Science and Western Science
- INDG 265.3 Aboriginal People and Development
- INDG 321.3 International Indigenous Disaster Risk Reduction
- **INDG 361.3** Indigenous Community Development in the 21st Century
- **INDG 362.3** Aboriginal People and Northern Development
- LAW 436.3 Aboriginal Law
- PHIL 226.3 Environmental Philosophy
- PLAN 329.3
- PLSC 214.3 Statistical Methods
- PLSC 412.3
- PLSC 413.3 Advanced Plant Ecology
- PLSC 418.3 Management of Arable Grassland
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 425.3 Forest Ecology
- POLS 111.3 Democratic Citizenship in Canada or POLS 112.3 Justice and Injustice in Politics and Law
- POLS 222.3 Indigenous Governance and Politics
- POLS 225.3 Canadian Public Administration and Administrative Law
- POLS 226.3 Canadian Public Policy
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs
- POLS 326.3 Comparative Public Policy
- POLS 328.3 Public Policy Analysis
- POLS 425.3
- SLSC 312.3 Soil Fertility and Fertilizers
- SLSC 313.3 Environmental Soil Chemistry
- SLSC 322.3 Environmental Soil Physics
- SLSC 342.3 Agronomic Soil Microbiology

- SLSC 444.3 Soil Ecology
- SLSC 460.3 Forest Soils
- SLSC 480.3 Soils and Boreal Landscapes
- TOX 301.3 Environmental Toxicology
- TOX 321.3 Risk Assessment and Regulatory Toxicology

## Year 4 (30 credit units)

- 3 credit units open electives
- AREC 430.3 Advanced Natural Resource Economics
- ENVS 401.3 Sustainability in Action or EVSC 485.3 Environmental Science Capstone Course
- RRM 421.6 Group Project in Renewable Resource Management

#### Choose 15 credit units of restricted electives:

#### **Emphasis**

Students may use their restricted electives to take courses to achieve a general level of knowledge in resource economics and management, or they can choose to take a more prescribed set of courses within the curriculum that gives them greater depth of knowledge in specific areas of natural resource management, assessment and development. To achieve this, students may choose one emphasis from the four offered as part of their restricted electives. An emphasis consists of five courses from the prescribed list.

#### **Indigenous Resource Management**

- ASKI 102.3 Introduction to Legal Concepts in Resource Management
- ASKI 103.3 Legal Process and Instruments in Resource Management
- <u>ASKI 202.1</u> Introduction to Land Management Frameworks and <u>ASKI 204.2</u> Introduction to the Duty to Consult
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- **INDG 241.3** Weaving Indigenous Science and Western Science
- INDG 265.3 Aboriginal People and Development
- INDG 362.3 Aboriginal People and Northern Development
- POLS 222.3 Indigenous Governance and Politics
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs

## **Sustainable Water/Energy/Food Systems**

- AGRC 211.3 Global Food Security
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 225.3 Hydrology of Canada
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- PLAN 329.3

### **Environmental Impact Assessment and Policy**

- AREC 451.3 Agricultural Policy Analysis
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- INDG 321.3 International Indigenous Disaster Risk Reduction
- POLS 226.3 Canadian Public Policy
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs
- TOX 321.3 Risk Assessment and Regulatory Toxicology

#### **Development and the Environment**

- ECON 270.3 Development in Non Industrialized Countries
- ENVE 381.3 Sustainability and Environmental Assessment
- GEOG 208.3 World Regional Development
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- **GEOG 386.3** Environmental Impact Assessment
- INDG 265.3 Aboriginal People and Development
- **INDG 361.3** Indigenous Community Development in the 21st Century

#### **Restricted Electives**

- AGRC 111.3 Introduction to Plant and Soil Sciences
- AGRC 211.3 Global Food Security
- ANBI 375.3 Animals and the Environment
- ANBI 420.3 Comparative Animal Endocrinology
- ANTH 111.3 One World Many Peoples Introduction to Cultural Anthropology
- ANTH 224.3 North American Plains Ethnography
- ANTH 329.3 Environmental Anthropology
- AREC 238.3 Natural Resource Economics
- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 430.3 Advanced Natural Resource Economics
- AREC 432.3 Rural Development Theory and Applications
- AREC 451.3 Agricultural Policy Analysis
- ASKI 102.3 Introduction to Legal Concepts in Resource Management
- ASKI 103.3 Legal Process and Instruments in Resource Management
- <u>ASKI 202.1</u> Introduction to Land Management Frameworks and <u>ASKI 204.2</u> Introduction to the Duty to Consult
- <u>BIOL 323.3</u> Plant Systematics and Evolution
- BIOL 412.3 Limnology
- BIOL 424.3
- BIOL 475.3 Ecological Toxicology
- CHEM 375.3 Environmental Chemistry
- COMM 201.3 Introduction to Financial Accounting

- COMM 347.3 Indigenous Business in Canada
- ECON 211.3 Intermediate Microeconomics
- ECON 231.3 Co operatives
- ECON 270.3 Development in Non Industrialized Countries
- ECON 275.3 Economics of Natural Resources
- ECON 277.3 Economics of the Environment
- ECON 347.3
- ENVE 381.3 Sustainability and Environmental Assessment
- ENVE 432.3 Land Management and Reclamation
- EVSC 220.3 Environmental Soil Science
- EVSC 380.3 Grassland Soils and Vegetation
- FABS 212.3 Agrifood and Resources Microbiology OR BMSC 210.3 Microbiology
- FABS 360.3
- FABS 430.3
- GEOG 150.3 Introduction to the Circumpolar World
- **GEOG 208.3** World Regional Development
- GEOG 225.3 Hydrology of Canada
- GEOG 233.3 Weather and Climate
- GEOG 235.3 Earth Processes and Natural Hazards A Canadian Perspective
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 271.3
- GEOG 280.3 Environmental Geography
- GEOG 323.3 Remote Sensing
- GEOG 328.3 Groundwater Hydrology
- GEOG 332.3
- GEOG 351.3 Northern Environments
- GEOG 352.3
- GEOG 371.3
- GEOG 380.3 Environmental Geography of the Circumpolar North
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- **GEOG 386.3** Environmental Impact Assessment
- GEOG 462.3
- GEOL 121.3 Earth Processes
- GEOL 312.3
- GEOL 330.3 Climate History
- HIST 170.6
- INDG 241.3 Weaving Indigenous Science and Western Science
- **INDG 265.3** Aboriginal People and Development
- INDG 321.3 International Indigenous Disaster Risk Reduction
- INDG 361.3 Indigenous Community Development in the 21st Century
- **INDG 362.3** Aboriginal People and Northern Development
- LAW 436.3 Aboriginal Law
- PHIL 226.3 Environmental Philosophy

- PLAN 329.3
- PLSC 214.3 Statistical Methods
- PLSC 412.3
- PLSC 413.3 Advanced Plant Ecology
- PLSC 418.3 Management of Arable Grassland
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 425.3 Forest Ecology
- POLS 111.3 Democratic Citizenship in Canada or POLS 112.3 Justice and Injustice in Politics and Law
- POLS 222.3 Indigenous Governance and Politics
- POLS 225.3 Canadian Public Administration and Administrative Law
- POLS 226.3 Canadian Public Policy
- POLS 322.3
- POLS 323.3 First Nations Policies and Programs
- POLS 326.3 Comparative Public Policy
- POLS 328.3 Public Policy Analysis
- POLS 425.3
- SLSC 312.3 Soil Fertility and Fertilizers
- SLSC 313.3 Environmental Soil Chemistry
- SLSC 322.3 Environmental Soil Physics
- SLSC 342.3 Agronomic Soil Microbiology
- SLSC 444.3 Soil Ecology
- SLSC 460.3 Forest Soils
- SLSC 480.3 Soils and Boreal Landscapes
- TOX 301.3 Environmental Toxicology
- TOX 321.3 Risk Assessment and Regulatory Toxicology

## **Agricultural Economics**

Bachelor of Science in Agriculture (B.S.A.) Honours

Admission to Honours is restricted to students having an approved Honours program, a recommendation from the supervising department, and a Cumulative Weighted Average of 70% or better on a minimum of 60 credit units in B.S.A. credited courses at the time of application. Students must officially apply for admission to an Honours program through the office of the Dean of Agriculture and Bioresources before the start of Year Four at the latest.

### Year 1 (30 credit units)

- AGRC 111.3 Introduction to Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Introduction to Agri Food Economics
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- **ECON 111.3** Introductory Microeconomics
- ECON 114.3 Introductory Macroeconomics

## **Choose 3 credit units from the following:**

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

### **Humanities**

- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LATN 100-Level, 200-Level, 300-Level, 400-Level</u>
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

## **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

### Year 2 (30 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AREC 261.3 Agricultural Data Analytics I

- AREC 262.3 Agricultural Data Analytics II
- AREC 272.3 Introduction to Agricultural Economics
- COMM 101.3 Introduction to Business
- **ECON 211.3** Intermediate Microeconomics
- **ECON 214.3** Intermediate Macroeconomics
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I, or MATH 121.3 or MATH 125.3 Mathematics for the Life Sciences
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods

Note: If you excel in mathematics, you are encouraged to take <u>MATH 110.3</u> Calculus I rather than <u>MATH</u> 104.3 Elementary Calculus

### **Choose 3 credit units from the following:**

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 421.3
- CPSJ 203.3 Cultivating Humanity
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- **ENG 113.3** Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State

- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 Indigenous Governance and Self Determined Sustainable Development
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

# Choose 3 credit units from the following:

- <u>ECON 305.3</u> Quantitative Methods in Economics I
- ECON 306.3 Quantitative Methods in Economics II
- MATH 116.3 Calculus II

# **Open Electives**

Choose 3 credit units of open electives

## Years 3 and 4 (60 credit units)

- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 322.3 Agricultural Finance
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 494.6 Research and Technical Writing Honours Thesis

- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- ECON 304.3 Introduction to Empirical Economics and ECON 408.3 Econometrics 1
- MATH 164.3 Introduction to Linear Algebra

#### **Choose 3 credit units from the following:**

- HIST 254.3 The Age of Total Wars in 20th Century Europe
- HIST 257.3 The Canadian Prairie to 1905
- HIST 258.3 The Canadian Prairies since 1905
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 140.3 Critical Thinking
- PHIL 235.3
- PHIL 241.3 Introduction to Symbolic Logic I
- PHIL 251.3 Philosophy of Science
- PHIL 262.3 Social and Political Philosophy

### Choose 12 credit units restricted electives from the following:

AREC — 400-Level

Note: <u>AREC 356.3</u> The Economics of International Agribusiness and <u>AREC 348.3</u> Food Economics and Consumer Behaviour can be used towards this requirement.

# Choose 6 credit units of restricted electives from the following:

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- AREC 100-Level, 200-Level, 300-Level, 400-Level
- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- <u>CHEM 100-Level, 200-Level, 300-Level, 400-Level</u>
- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- COMM 100-Level, 200-Level, 300-Level, 400-Level

- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning or equivalent
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- GRK 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level
- PLSC 214.3 Statistical Methods
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- If applicable, a specialization minor course can be used

# **Open Electives**

Choose 6 credit units of open electives

#### **Agricultural Economics**

Bachelor of Science in Agriculture (B.S.A.)

#### Year 1 (30 credit units)

- AGRC 111.3 Introduction to Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Introduction to Agri Food Economics
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- **ECON 111.3** Introductory Microeconomics
- <u>ECON 114.3</u> Introductory Macroeconomics

# **Choose 3 credit units from the following:**

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

# **Humanities**

- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LIT 100-Level, 200-Level, 300-Level, 400-Level

- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

#### **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

#### Year 2 (30 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AREC 261.3 Agricultural Data Analytics I
- AREC 262.3 Agricultural Data Analytics II
- AREC 272.3 Introduction to Agricultural Economics
- **COMM 101.3** Introduction to Business
- **ECON 211.3** Intermediate Microeconomics
- ECON 214.3 Intermediate Macroeconomics
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I, or MATH 121.3 or MATH 125.3 Mathematics for the Life Sciences
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods

Note: If you excel in mathematics, you are encouraged to take <u>MATH 110.3</u> Calculus I rather than <u>MATH 104.3</u> Elementary Calculus

### **Choose 3 credit units from the following:**

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 421.3
- **CPSJ 203.3** Cultivating Humanity
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- **ENG 114.3** Literature and Composition Reading Culture
- **ENG 120.3** Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture

- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 Indigenous Governance and Self Determined Sustainable Development
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

#### **Choose 3 credit units from the following:**

- ECON 305.3 Quantitative Methods in Economics I
- ECON 306.3 Quantitative Methods in Economics II
- MATH 116.3 Calculus II

MATH 164.3 Introduction to Linear Algebra

# **Open Electives**

Choose 3 credit units of open electives

### Years 3 and 4 (60 credit units)

- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 322.3 Agricultural Finance
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 492.3 Research Project and Technical Writing
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- ECON 304.3 Introduction to Empirical Economics and ECON 408.3 Econometrics 1

#### **Choose 3 credit units from the following:**

- HIST 254.3 The Age of Total Wars in 20th Century Europe
- HIST 257.3 The Canadian Prairie to 1905
- HIST 258.3 The Canadian Prairies since 1905
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 140.3 Critical Thinking
- PHIL 235.3
- PHIL 241.3 Introduction to Symbolic Logic I
- PHIL 251.3 Philosophy of Science
- PHIL 262.3 Social and Political Philosophy

#### Choose 12 credit units restricted electives from the following:

AREC — 400-Level

Note: <u>AREC 356.3</u> The Economics of International Agribusiness and <u>AREC 348.3</u> Food Economics and Consumer Behaviour can be used toward this requirement

#### Choose 12 credit units restricted electives from the following:

GEOG 130.3 Environment Health and Planning or equivalent

- AGRC 445.3 Experiential Learning in the Workplace
- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- AREC 100-Level, 200-Level, 300-Level, 400-Level
- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- COMM 100-Level, 200-Level, 300-Level, 400-Level
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- GRK 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level
- PLSC 214.3 Statistical Methods
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level

- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- If applicable, a specialization minor course can be used.

# **Open Electives**

• Choose 6 credit units of open electives

# **Food Industry Management**

Bachelor of Science in Food Industry Management [B.Sc.(FIM)]

The food agribusiness sector represents a key pillar of the Canadian economy. The B.Sc. in Food Industry Management provides students with fundamental and applied interdisciplinary skills in business, agribusiness and food science, along with experiential learning and possible internship opportunities to make them market-ready upon graduation. Core course content includes business management, agricultural commodities, bioproducts, transportation and processing, food safety;students will be exposed to unique cross-disciplinary and interdisciplinary perspectives, hands-on training, and knowledge to encourage creativity and problem-solving skills necessary to meet the current and emerging needs in the food agribusiness job field post-graduation.

### Minimum Requirements for Degree (120 credit units)

# Year 1 (30 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 113.3 Introduction to Agri Food Economics
- AREC 220.3 History of Indigenous Agriculture in Canada
- BIOL 120.3 The Nature of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- COMM 101.3 Introduction to Business
- <u>ECON 111.3</u> Introductory Microeconomics
- FABS 110.3 The Science of Food
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences

#### **Choose 3 credit units from the following:**

ENG 111.3 Literature and Composition Reading Poetry

- ENG 112.3 Literature and Composition Reading Drama
- **ENG 113.3** Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing

### Year 2 (30 credit units)

- AREC 230.3 Innovation and Entrepreneurship
- AREC 272.3 Introduction to Agricultural Economics
- BMSC 200.3 Biomolecules
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- FABS 211.3 Introductory Bioproduct Science
- FABS 212.3 Agrifood and Resources Microbiology
- PLSC 214.3 Statistical Methods or AREC 261.3 Agricultural Data Analytics I

Note: If you plan to work in the food science area, choose PLSC 214.3. If you plan to work in the industry management area, choose AREC 261.3

#### **Choose 3 credit units from the following:**

- <u>BIOL 100-Level, 200-Level, 300-Level, 400-Level</u>
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- <u>GEOG 120.3</u> Introduction to Global Environmental Systems or <u>GEOG 125.3</u> Environmental Science and Society
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level

# Years 3 and 4 (60 credit units)

- AREC 322.3 Agricultural Finance
- AREC 346.3 Principles of Selling
- AREC 347.3 Agribusiness Marketing Management
- AREC 348.3 Food Economics and Consumer Behaviour
- AREC 354.3 Economic Decision Analysis in Agribusiness

- AREC 428.3 Case Studies in Agribusiness Management or <u>AREC 495.3</u> Agribusiness Venture Management or <u>FABS 492.3</u> Literature Thesis
- FABS 315.3 Food Chemistry
- <u>FABS 325.3</u> Food Microbiology and Safety
- FABS 345.3 Unit Operations in Food Processing
- FABS 317.3 Food and Bioproducts Analysis
- FABS 452.3 Quality Assurance and HACCP

# Choose 3 credit units from the areas of Social Science, Humanities, or Fine Arts:

#### **Humanities**

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LATN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

#### **Social Sciences**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

# **Fine Arts**

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

#### **Choose 15 credit units of restricted electives from the following:**

- AGRC 445.3 Experiential Learning in the Workplace
- AREC 262.3 Agricultural Data Analytics II

- AREC 315.3 Application of Microeconomic Theory to Agriculture
- AREC 342.3 Industrial Organization of Agricultural Markets
- AREC 356.3 The Economics of International Agribusiness
- AREC 361.3 Intermediate Statistics and Decision Making
- AREC 420.3 Operations Management for Agriculture
- AREC 440.3 Agricultural Marketing Systems
- AREC 451.3 Agricultural Policy Analysis
- <u>CHEM 115.3</u> General Chemistry II Chemical Processes
- CHEM 221.3 Analytical Chemistry I
- CHEM 250.3 Introduction to Organic Chemistry
- COMM 205.3 Introduction to Operations Management
- FABS 222.3 Improving Food Security through Food Science and Technology
- FABS 298.3 Special Topics
- FABS 360.3
- FABS 362.3 Functional Foods and Nutraceuticals
- FABS 371.3 Food Biotechnology
- FABS 398.3 Special Topics
- <u>FABS 401.3</u> Dairy Science and Technology
- <u>FABS 411.3</u> Lipid Science and Technology
- <u>FABS 457.3</u> Meat Science and Technology
- FABS 460.3 Protein Science and Technology
- FABS 474.3 Food Enzymology
- FABS 493.3 Product Development
- FABS 498.3 Special Topics
- PLSC 420.3 Grain Chemistry and Technology

#### **Open Electives**

Choose 9 credit units of Open Electives

**Rationale:** These program revisions incorporate the newly proposed AREC 261.3 into the Agricultural and Resource Economics department's programs and majors, as well as the proposed renumbering of AREC

361.3 to AREC 262.3 and movement of this course into Year 2 to create a two-course sequence in data and econometrics.

# Agronomy

Diploma, Dip.(Agrn.)

The Diplomas in Agriculture and Bioresources are two year programs targeted at specific employment opportunities. Consisting of degree-level courses, the diplomas ladder directly into specific degree programs in the College of Agriculture and Bioresources. Students completing a Diploma in Agronomy, along with an additional 60 credit units of approved course work in the College of Agriculture and Bioresources will be eligible to obtain a B.S.A degree.

# Year 1 - Fall Term (15 credit units)

- AGRC 111.3 Introduction to Plant and Soil Sciences
- <u>AREC 220.3</u> History of Indigenous Agriculture in Canada or <u>INDG 107.3</u> Introduction to Canadian Indigenous Studies (<u>AREC 220.3</u> History of Indigenous Agriculture in Canada is preferred)
- BIOL 120.3 The Nature of Life

#### Choose 6 credit units of open electives

# Year 1 - Winter Term (15 credit units)

- BIOL 222.3 The Living Plant
- <u>BLE 205.3</u> Agricultural Machinery Management PLSC 205.3 Principles and Management of Agricultural Equipment
- PLSC 201.3 Field Crops of Western Canada
- PLSC 260.3 Principles of Plant Protection
- SLSC 240.3 Agricultural Soil Science

#### Year 2 - (30 credit units)

- AGRC 113.3 Introduction to Agri Food Economics
- PLSC 375.3 Current Topics in Agronomy
- RCM 200.3 Effective Professional Communication or AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- SLSC 312.3 Soil Fertility and Fertilizers

#### Choose 9 credit units from the following Plant Protection restricted electives:

- PLSC 234.3 Weed Control in Organic Agriculture
- PLSC 335.3 Field Crop Disease Management
- PLSC 340.3 Weed Biology and Ecology

- PLSC 345.3 Pesticides and Crop Protection
- PLSC 350.3 Agricultural Entomology
- PLSC 450.3 Applied Entomology

### Choose 9 credit units from the following restricted electives:

- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 211.3 Global Food Security
- AREC 222.3 Introduction to Farm Business Management
- AREC 230.3 Innovation and Entrepreneurship
- AREC 251.3 Introduction to Agricultural Policy
- AREC 343.3 Grain and Livestock Marketing
- AREC 347.3 Agribusiness Marketing Management
- PLSC 202.3 Introductory Precision Agriculture
- PLSC 213.3 Principles of Plant Ecology
- PLSC 214.3 Statistical Methods
- PLSC 220.3 Fundamentals of Horticulture
- PLSC 234.3 Weed Control in Organic Agriculture
- PLSC 235.3 Urban Agriculture
- PLSC 311.3 General Apiculture
- PLSC 330.3 Ornamental Plants
- PLSC 333.3 Tropical Crops of the World
- PLSC 335.3 Field Crop Disease Management
- PLSC 340.3 Weed Biology and Ecology
- PLSC 345.3 Pesticides and Crop Protection
- PLSC 350.3 Agricultural Entomology
- PLSC 382.3 Introduction to Field Scouting
- PLSC 408.3 Global Plant Genetic Resources
- PLSC 418.3 Management of Arable Grassland
- PLSC 420.3 Grain Chemistry and Technology
- PLSC 450.3 Applied Entomology

- SLSC 232.3 Soil Genesis and Classification
- SLSC 342.3 Agronomic Soil Microbiology
- SLSC 342.3 Agronomic Soil Microbiology
- SLSC 444.3 Soil Ecology

**Rationale:** This revision incorporates the newly proposed PLSC 205.3 course into the Diploma in Agronomy, replacing BLE 205.3, which is no longer offered.

#### **Motion Reversal**

The following motion was approved on October 31, 2023 through the October 2023 University Course Challenge posting:

**Motion**: To remove STAT 103.3 from the Bachelor of Science in Agriculture (B.S.A.) Honours in Agricultural Biology and the Bachelor of Science in Agriculture (B.S.A.) in Agricultural Biology; however, that motion is now proposed to be reversed:

#### The new motion reverses that decision, as follows:

The B.S.A. Honours in Agricultural Biology and the B.S.A. in Agricultural Biology will continue to include STAT 103.3, and the note advising students that they cannot receive credit for STAT 103 if taken concurrently with or after PLSC 214 will be removed (as shown here):

### **Agricultural Biology**

Bachelor of Science in Agriculture (B.S.A.) Honours

#### Year 2 (30 credit units)

- BIOL 222.3 The Living Plant
- BIOL 224.3 Animal Body Systems
- BIOL 226.3 Genes to Genomics
- BMSC 200.3 Biomolecules
- FABS 212.3 Agrifood and Resources Microbiology or BMSC 210.3 Microbiology
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- STAT 103.3 Elementary Probability or PHYS 115.3 Physics and the Universe

Note: Credit will not be granted for <u>STAT 103.3</u> Elementary Probability if it is taken concurrently with or after <u>PLSC 214.3</u> Statistical Methods. If you have already completed <u>PLSC 214.3</u> Statistical Methods, you must take <u>PHYS 115.3</u> Physics and the Universe.3 instead of <u>STAT 103.3</u> Elementary Probability.

# **Agricultural Biology**

Bachelor of Science in Agriculture (B.S.A.)

### Year 2 (30 credit units)

- BIOL 222.3 The Living Plant
- BIOL 224.3 Animal Body Systems
- BIOL 226.3 Genes to Genomics
- BMSC 200.3 Biomolecules
- FABS 212.3 Agrifood and Resources Microbiology or BMSC 210.3 Microbiology
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- STAT 103.3 Elementary Probability or PHYS 115.3 Physics and the Universe

Note: Credit will not be granted for <u>STAT 103.3</u> Elementary Probability if it is taken concurrently with or after <u>PLSC 214.3</u> Statistical Methods. If you have already completed <u>PLSC 214.3</u> Statistical Methods, you must take <u>PHYS 115.3</u> Physics and the Universe instead of <u>STAT 103.3</u> Elementary Probability.

**Rationale:** In light of the course revision posted in the November 2023 Arts and Science College Course and Program Challenge submission to remove the note that credit will not be granted for STAT 103 if it is taken concurrently with PLSC 214, STAT 103 will remain in Year 2 of the B.S.A. Honours in Agricultural Biology and the B.S.A. Agricultural Biology.

### **University Course Challenge – December 2023**

The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge, and by the relevant college-level Academic Programs Committee, and are now submitted to the University Course Challenge for approval.

Contact: Alexis Dahl (alexis.dahl@usask.ca)

# **Applied Computing**

#### Minor program revisions

### Bachelor of Science Honours and Four-year in Applied Computing

Add CMPT 263.3 as an alternative to CMPT 260.3, and add STAT 242 as an alternative to STAT 245 and/or STAT 246. For the Business concentration only, move CMPT 241 from the Software Engineering list to the list of required courses, and adjust the credit units required from the lists accordingly. For the Data Analytics concentration only, move the requirement to choose one of MATH 110, 133, or 176 from the C4 Major Requirement to the C3 Cognate Requirement and adjust the credit unit totals accordingly.

# <u>Bachelor of Science Honours (B.Sc. Honours) - Applied Computing - Bioinformatics</u> C4 Major Requirement (81 credit units)

- BINF 351.3 Introduction to Bioinformatics
- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life
- BMSC 200.3 Biomolecules
- CHEM 250.3 Introduction to Organic Chemistry
- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 318.3 Data Analytics
- CMPT 353.3 Full Stack Web Programming
- CMPT 360.3 Machines and Algorithms
- CMPT 407.3 Research Topics in Applied Computing
- CMPT 451.3 Modelling and Algorithms for Biological Systems

#### Choose 3 credit units from the following:

- BMSC 240.3 Laboratory Techniques
- BIOL 226.3 Genes to Genomics

#### Choose 3 credit units from the following:

- BMIS 340.3 Introductory Molecular Biology
- BIOL 316.3 Genetic Analysis of Eukaryotes

### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology
- **STAT 245.3** Introduction to Statistical Methods

• STAT 246.3 Introduction to Biostatistics

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# <u>Bachelor of Science (B.Sc. Four-year) - Applied Computing - Bioinformatics</u> C4 Major Requirement (78 credit units)

- BINF 351.3 Introduction to Bioinformatics
- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life
- BMSC 200.3 Biomolecules
- CHEM 250.3 Introduction to Organic Chemistry
- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- <u>CMPT 260.3</u> Mathematical Logic and Computing or <u>CMPT 263.3</u> Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 318.3 Data Analytics
- CMPT 353.3 Full Stack Web Programming
- CMPT 360.3 Machines and Algorithms
- CMPT 451.3 Modelling and Algorithms for Biological Systems

# Choose 3 credit units from the following:

- BMSC 240.3 Laboratory Techniques
- BIOL 226.3 Genes to Genomics

# Choose 3 credit units from the following:

- BMIS 340.3 Introductory Molecular Biology
- BIOL 316.3 Genetic Analysis of Eukaryotes

# Choose 3 credit units from the following:

- **STAT 242.3** Statistical Theory and Methodology
- STAT 245.3 Introduction to Statistical Methods
- STAT 246.3 Introduction to Biostatistics

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# Bachelor of Science Honours (B.Sc. Honours) - Applied Computing - Business

C4 Major Requirement (69 credit units)

- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 214.3 Programming Principles and Practice
- <u>CMPT 260.3</u> Mathematical Logic and Computing or <u>CMPT 263.3</u> Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 370.3 Intermediate Software Engineering
- CMPT 371.3 Software Management
- CMPT 407.3 Research Topics in Applied Computing

- COMM 100.3 Business Communication
- COMM 101.3 Introduction to Business
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 204.3 Introduction to Marketing
- COMM 306.3 Ethics and Strategic Decision Making
- STAT 242.3 Statistical Theory and Methodology or STAT 245.3 Introduction to Statistical Methods

Choose **45 12 credit units** from the following, from any of the following three areas, including at least 3 credit units at the 400-level

#### Software Engineering:

- CMPT 214.3 Programming Principles and Practice
- <u>CMPT 340.3</u> Programming Language Paradigms
- CMPT 353.3 Full Stack Web Programming
- CMPT 436.3 Mobile and Cloud Computing
- CMPT 470.3 Advanced Software Engineering

#### Analytics:

- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 318.3 Data Analytics
- CMPT 384.3 Information Visualization
- CMPT 423.3 Machine Learning
- CMPT 489.3 Deep Learning and Applications

#### **User and Web:**

- CMPT 281.3 Website Design and Development
- CMPT 353.3 Full Stack Web Programming
- CMPT 381.3 Implementation of Graphical User Interfaces
- CMPT 412.3 Social Computing and Participative Web 2.0
- CMPT 481.3 Human Computer Interaction

#### Choose **9 credit units** from the following, from any of the areas listed:

- COMM 203.3 Introduction to Finance
- COMM 205.3 Introduction to Operations Management
- COMM 348.3 Leadership
- **COMM 349.3** Introduction to Entrepreneurship
- COMM 352.3 Marketing Strategy
- COMM 354.3 Consumer Behaviour
- COMM 357.3 Marketing Research

# Bachelor of Science (B.Sc. Four-year) - Applied Computing - Business

#### C4 Major Requirement (66 credit units)

- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 214.3 Programming Principles and Practice
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- <u>CMPT 270.3</u> Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 370.3 Intermediate Software Engineering
- <u>CMPT 371.3</u> Software Management

- COMM 100.3 Business Communication
- COMM 101.3 Introduction to Business
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 204.3 Introduction to Marketing
- COMM 306.3 Ethics and Strategic Decision Making
- STAT 242.3 Statistical Theory and Methodology or STAT 245.3 Introduction to Statistical Methods

# Choose **45 12 credit units** from the following, from any of the three following areas: **Software Engineering**:

- CMPT 214.3 Programming Principles and Practice
- **CMPT 340.3** Programming Language Paradigms
- CMPT 353.3 Full Stack Web Programming
- CMPT 436.3 Mobile and Cloud Computing
- <u>CMPT 470.3</u> Advanced Software Engineering

# Analytics:

- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 318.3 Data Analytics
- **CMPT 384.3** Information Visualization
- CMPT 423.3 Machine Learning
- CMPT 489.3 Deep Learning and Applications

#### **User and Web:**

- <u>CMPT 281.3</u> Website Design and Development
- CMPT 353.3 Full Stack Web Programming
- CMPT 381.3 Implementation of Graphical User Interfaces
- CMPT 412.3 Social Computing and Participative Web 2.0
- CMPT 481.3 Human Computer Interaction

#### Choose **9 credit units** from the following, from any of the areas listed:

- COMM 203.3 Introduction to Finance
- COMM 205.3 Introduction to Operations Management
- COMM 348.3 Leadership
- COMM 349.3 Introduction to Entrepreneurship
- COMM 352.3 Marketing Strategy
- COMM 354.3 Consumer Behaviour
- COMM 357.3 Marketing Research

# Bachelor of Science Honours (B.Sc. Honours) - Applied Computing - Data Analytics C3 Cognate Requirement (42 15 credit units)

#### Junior course requirements:

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#### Senior Additional course requirements:

PHIL 232.3 Ethics and Professional Responsibility in Computer Science

#### Choose 3 credit units from the following:

MATH 110.3 Calculus I

- MATH 133.4 Engineering Mathematics I (only open to student in the College of Engineering)
- MATH 176.3 Advanced Calculus I

#### C4 Major Requirement (<del>75-78</del> 72-75 credit units)

- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 318.3 Data Analytics
- CMPT 360.3 Machines and Algorithms
- CMPT 384.3 Information Visualization
- CMPT 423.3 Machine Learning
- MATH 211.3 Numerical Analysis I
- MATH 266.3 Linear Algebra II
- STAT 241.3 Probability Theory
- STAT 344.3 Applied Regression Analysis
- STAT 345.3 Design and Analysis of Experiments
- STAT 346.3 Multivariate Analysis

# Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I (only open to student in the College of Engineering)
- MATH 176.3 Advanced Calculus I

#### Choose 3 credit units from the following:

- MATH 116.3 Calculus II
- MATH 134.3 Engineering Mathematics II (only open to student in the College of Engineering)
- MATH 177.3 Advanced Calculus II

### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology (recommended)
- STAT 245.3 Introduction to Statistical Methods

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# <u>Bachelor of Science (B.Sc. Four-year) - Applied Computing - Data Analytics</u> C3 Cognate Requirement (42 15 credit units)

Junior course requirements:

# Senior Additional course requirements:

• PHIL 232.3 Ethics and Professional Responsibility in Computer Science

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I (only open to student in the College of Engineering)
- MATH 176.3 Advanced Calculus I

#### C4 Major Requirement (72 69 credit units)

- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 318.3 Data Analytics
- CMPT 384.3 Information Visualization
- CMPT 423.3 Machine Learning
- MATH 211.3 Numerical Analysis I
- MATH 266.3 Linear Algebra II
- **STAT 241.3** Probability Theory

# Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I (only open to student in the College of Engineering)
- MATH 176.3 Advanced Calculus I

# Choose 3 credit units from the following:

- MATH 116.3 Calculus II
- MATH 134.3 Engineering Mathematics II (only open to student in the College of Engineering)
- MATH 177.3 Advanced Calculus II

#### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology (recommended)
- STAT 245.3 Introduction to Statistical Methods

# Bachelor of Science Honours (B.Sc. Honours) - Applied Computing - Geomatics

#### C4 Major Requirement (63 credit units)

- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 318.3 Data Analytics
- CMPT 384.3 Information Visualization
- CMPT 487.3 Image Processing and Computer Vision
- GEOG 222.3 Geomatics
- GEOG 322.3 Geographic Information Systems
- GEOG 302.3 Quantitative Methods in Geography
- GEOG 323.3 Remote Sensing
- <u>STAT 242.3</u> Statistical Theory and Methodology or <u>STAT 245.3</u> Introduction to Statistical Methods

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### Bachelor of Science (B.Sc. Four-year) - Applied Computing - Geomatics

C4 Major Requirement (60 credit units)

- CMPT 141.3 Introduction to Computer Science
- <u>CMPT 145.3</u> Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 318.3 Data Analytics
- CMPT 384.3 Information Visualization
- CMPT 487.3 Image Processing and Computer Vision
- GEOG 222.3 Geomatics
- GEOG 322.3 Geographic Information Systems
- GEOG 302.3 Quantitative Methods in Geography
- GEOG 323.3 Remote Sensing
- STAT 242.3 Statistical Theory and Methodology or STAT 245.3 Introduction to Statistical Methods

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# <u>Bachelor of Science Honours (B.Sc. Honours) - Applied Computing - Interactive System Design</u> C4 Major Requirement (75 credit units)

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II
- CMPT 141.3 Introduction to Computer Science
- CMPT 145.3 Principles of Computer Science
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 281.3 Website Design and Development
- CMPT 370.3 Intermediate Software Engineering
- CMPT 381.3 Implementation of Graphical User Interfaces
- CMPT 407.3 Research Topics in Applied Computing
- CMPT 481.3 Human Computer Interaction
- PSY 120.3 Biological and Cognitive Bases of Psychology
- PSY 121.3 Social Clinical Cultural and Developmental Bases of Psychology
- <u>STAT 242.3</u> Statistical Theory and Methodology or <u>STAT 245.3</u> Introduction to Statistical Methods

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# <u>Bachelor of Science (B.Sc. Four-year) - Applied Computing - Interactive System Design</u> C4 Major Requirement (72 credit units)

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II
- CMPT 141.3 Introduction to Computer Science
- <u>CMPT 145.3</u> Principles of Computer Science
- <u>CMPT 260.3</u> Mathematical Logic and Computing or <u>CMPT 263.3</u> Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 281.3 Website Design and Development
- CMPT 370.3 Intermediate Software Engineering
- CMPT 381.3 Implementation of Graphical User Interfaces

- CMPT 481.3 Human Computer Interaction
- PSY 120.3 Biological and Cognitive Bases of Psychology
- PSY 121.3 Social Clinical Cultural and Developmental Bases of Psychology
- <u>STAT 242.3</u> Statistical Theory and Methodology or <u>STAT 245.3</u> Introduction to Statistical Methods

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Rationale: CMPT 263.3 has been designed to follow MATH 164, which was recently introduced. This will replace CMPT 260 which has an approximate 70% overlap content with MATH 164, and allow students to advance further in this area. STAT 242 and STAT 245/246 are currently equivalent, but that is proposed to change (see below). Adding STAT 242 to the programs now ensures that can still be selected to fulfill statistics requirements in this program. CMPT 214 is now a prerequisite for CMPT 371, which is required in the Business concentration, and so is moved into the required courses. The move of the MATH 110/133/176 requirement aligns introductory mathematics requirements across the Applied Computing (and the same change has been proposed for Computer Science). It will provide easier comparability/transfer among programs and allows all Computer Science to use the same courses toward a Minor in Mathematics (courses in the C4 Major Requirement may not be double counted for a minor).

#### **Art History**

# Minor program revisions

# **Bachelor of Arts Double Honours in Art History and Studio Art**

In the D4 Major Requirement replace 6 credit unit courses with the new 3 credit versions (see course splits below) and eliminate the credit unit ranges that were caused my the mix of 3 and 6 credit unit courses in the same requirement. Remove the long lists of ART courses and replace an inclusive list of ART courses, and add INTS 111.3. Eliminate the reference to ART 340, which is no longer offered.

# Bachelor of Arts Double Honours - Art History and Studio Art- Majors 1 and 2 D4 Major Requirement (75 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

Some ARTH courses may be used in lieu of ART courses. Students are strongly encouraged to work with an advisor to choose their courses.

- ART 110.3 Art Today Ideas and Practices
- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation
- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

Choose two of the following (6 -12 credit units):

- ART 111.6 Painting I Foundation
- ART 124.3 Foundation in Painting I
- ART 125.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I

# Choose 15 - 21 21 credit units from the following:

- 100-level, 200-Level, 300-Level or 400-Level ART Courses
- <u>INTS 111.3</u> Design and Society

### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing**

- ART 112.6 Drawing | Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

# **Printmaking**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

# **Sculpture**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

Choose 30 senior credit units from the following:

- ART 340.3
- ARTH 200-Level, 300-Level, 400-Level
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- ENG 307.3 Digital Literature and New Media
- HIST 308.6 Rome Building and Living in the Ancient City
- HIST 433.6 Visions of Empire Architecture and Power in Ancient Rome and Fascist Italy
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts

Rationale: The department is continuing work to split or replace all 6 credit unit courses. Replacing the long lists of ART courses with an inclusive list will prevent the need for program revisions each time a course is added or deleted. INTS 111.3 is a course that can be used in the major as the content is appropriate. ART 340 is moribund and there are no plans to offer it in future.

#### Biochemistry, Microbiology and Immunology

#### Minor program revisions

# Bachelor of Science (Biomedical Science) Honours and Four-year in Biochemistry, Microbiology and Immunology

In the M5 Major Requirement, add BMIS 319.3, BMIS 398.3 and BMIS 498.3 to the list of BMIS courses, and add STAT 345.3 to the list that includes courses from different subjects.

# Bachelor of Science (Biomedical Science) Honours [B.Sc. (BMSC) Honours] - Biochemistry, Microbiology and Immunology

M5 Major Requirement (42 credit units)

- BMIS 340.3 Introductory Molecular Biology
- BMIS 400.0 Seminar in Biochemistry Microbiology and Immunology
- BMSC 320.3 Nucleic Acids From Central Dogma to Human Disease

# Choose 3 credit units from the following:

- BMIS 310.3 Proteins and Enzymes
- BMIS 390.3 Experimental Microbiology and Immunology

# Choose 3 credit units from the following:

- BINF 151.3 Computing in the Biological Sciences
- BINF 351.3 Introduction to Bioinformatics

Choose 15 credit units from the following including at least 9 credit units at the 400-level:

- BMIS 308.3 An Introduction to Microbial Pathogens
- BMIS 319.3 Vaccinology Principles and Practice
- BMIS 321.3 Principles of Immunology
- BMIS 380.3 Team Based Experimental Microbiology
- BMIS 398.3 Special Topics
- BMIS 405.3 Structure and Function of Biomolecules
- BMIS 412.3 Protein Structure Function and Engineering
- BMIS 417.3 Molecular Virology
- BMIS 423.3 Immunopathogenesis
- BMIS 425.3 Molecular Basis of Microbial Pathogenesis
- BMIS 430.3 Biochemistry of Cancer
- BMIS 435.3 Human Metabolism and Disease
- BMIS 436.3 Advanced Molecular Biology
- BMIS 487.3 Microbial Genetic Systems
- BMIS 489.6 Research Project in Biochemistry Microbiology and Immunology
- BMIS 498.3 Special Topics

# Choose 15 credit units from the following:

- BIOL 226.3 Genes to Genomics
- BIOL 316.3 Genetic Analysis of Eukaryotes
- BIOL 331.3 Plant Physiology
- BIOL 420.3 Molecular Biology of Plants

- BIOL 436.3 Animal Parasitology
- CHEM 456.3
- CHEP 350.3 Introduction to Epidemiology
- CMPT 451.3 Modelling and Algorithms for Biological Systems
- CPPS 302.3 Human Physiology Transport Systems
- CPPS 303.3 Human Physiology Reproduction Growth and Energy Homeostasis
- CPPS 304.3 Introduction to Pharmacology
- CPPS 325.3 Advanced Cell Biology
- FABS 325.3 Food Microbiology and Safety
- FABS 334.3 Industrial Microbiology
- FABS 430.3
- FABS 450.3
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- STAT 345.3 Design and Analysis of Experiments
- Any BMSC, BMIS, BIOC or MCIM course at the 300 or 400 level

# <u>Bachelor of Science (Biomedical Science) Four-year [B.Sc. (BMSC) Four-year] - Biochemistry, Microbiology and Immunology</u>

M5 Major Requirement (42 credit units)

- BMIS 340.3 Introductory Molecular Biology
- BMIS 400.0 Seminar in Biochemistry Microbiology and Immunology
- BMSC 320.3 Nucleic Acids From Central Dogma to Human Disease

### Choose 3 credit units from the following:

- BMIS 310.3 Proteins and Enzymes
- BMIS 390.3 Experimental Microbiology and Immunology

# Choose 3 credit units from the following:

- BINF 151.3 Computing in the Biological Sciences
- BINF 351.3 Introduction to Bioinformatics

Choose 15 credit units from the following including at least 9 credit units at the 400-level:

- BMIS 308.3 An Introduction to Microbial Pathogens
- BMIS 319.3 Vaccinology Principles and Practice
- BMIS 321.3 Principles of Immunology
- BMIS 380.3 Team Based Experimental Microbiology
- BMIS 398.3 Special Topics
- BMIS 405.3 Structure and Function of Biomolecules
- BMIS 412.3 Protein Structure Function and Engineering
- BMIS 417.3 Molecular Virology
- BMIS 423.3 Immunopathogenesis
- BMIS 425.3 Molecular Basis of Microbial Pathogenesis
- BMIS 430.3 Biochemistry of Cancer
- BMIS 435.3 Human Metabolism and Disease
- BMIS 436.3 Advanced Molecular Biology
- BMIS 487.3 Microbial Genetic Systems
- BMIS 489.6 Research Project in Biochemistry Microbiology and Immunology

BMIS 498.3 Special Topics

### Choose 15 credit units from the following:

- BIOL 226.3 Genes to Genomics
- BIOL 316.3 Genetic Analysis of Eukaryotes
- BIOL 331.3 Plant Physiology
- BIOL 420.3 Molecular Biology of Plants
- BIOL 436.3 Animal Parasitology
- CHEM 456.3
- CHEP 350.3 Introduction to Epidemiology
- CMPT 451.3 Modelling and Algorithms for Biological Systems
- CPPS 302.3 Human Physiology Transport Systems
- CPPS 303.3 Human Physiology Reproduction Growth and Energy Homeostasis
- CPPS 304.3 Introduction to Pharmacology
- CPPS 325.3 Advanced Cell Biology
- <u>FABS 325.3</u> Food Microbiology and Safety
- FABS 334.3 Industrial Microbiology
- FABS 430.3
- FABS 450.3
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- STAT 345.3 Design and Analysis of Experiments
- Any BMSC, BMIS, BIOC or MCIM course at the 300 or 400 level

Rationale: BMIS 319 is a new course so is being formally listed in the M5 Major Requirement. BMIS 398 and 498 can currently be used in the last section of M5, but as courses in the major areas they should also be used in the BMIS course list. Students find that they are better prepared to complete research projects with more understanding of statistics, so STAT 345 is added to the final section of the M5 requirement to help students find the course, and to show its importance to the major.

#### Minor course revisions

#### BMIS 435.3 Human Metabolism and Disease

Prerequisite change:

Current prerequisite(s): BMSC 230.3 and CHEM 250.3

New prerequisite(s): BMSC 230.3, BMSC 320.3 and CHEM 250.3

Rationale: Understanding the basis of genetic diseases which affect human metabolism requires a better understanding of mutations & gene expression. Most students take BMSC 320 before taking BMIS 435 (both are required in the Biochemistry, Microbiology and Immunology and Interdisciplinary Biomedical Science4 programs), but some students may take the courses out of sequence. Adding BMSC 320 to the prerequisites will ensure students have consistent background knowledge when taking BMIS 435.

#### **Business Economics**

#### Minor program revisions

Add note to make clear that the courses used in the final requirement of the B4 Major Requirement may be chosen from all COMM courses, not just those courses which are included on the <a href="Arts & Science">Arts & Science</a> Automatic Transfer for Courses from Other Colleges list.

# Bachelor of Arts Honours (B.A. Honours) - Business Economics

B4 Major Requirement (60 credit units)

COMM 201.3

- COMM 203.3\*
- COMM 210.3
- ECON 111.3
- ECON 114.3
- ECON 211.3 or ECON 273.3
- ECON 214.3 or ECON 274.3
- ECON 304.3
- STAT 245.3

\*Students who have declared Business Economics as their major may use MATH 104 (instead of MATH 110, MATH 121 or COMM 121) as a prerequisite for COMM 203. Students are responsible for approaching the Department of Economics for the necessary prerequisite overrides.

# Choose 6 credit units from the following:

- COMM 105.3
- COMM 204.3
- COMM 211.3
- COMM 304.3
- COMM 345.3
- COMM 381.3

### **Senior Economics Electives**

Choose **6 credit units** at the 400-level

• ECON — 400-Level

Choose 6 credit units at the 300 or 400-level

• ECON — 300-Level, 400-Level

Choose 6 credit units at the 200-level or higher

• ECON — 200-Level, 300-Level, 400-Level

### **Economics and/or Commerce Electives**

9 additional credit units of Economics and/or Commerce Electives at the 200-level or higher

COMM courses chosen in this requirement are not limited to those on the <u>Automatic Transfer for Courses</u> from Other Colleges list.

# Choose **9 credit units** from the following:

- ECON 200-Level, 300-Level, 400-Level
- COMM 200-Level, 300-Level, 400-Level

# Bachelor of Arts Four-year (B.A. Four-year) - Business Economics

**B4 Major Requirement (60 credit units)** 

- COMM 201.3
- COMM 203.3\*
- COMM 210.3
- ECON 111.3
- ECON 114.3
- ECON 211.3 or ECON 273.3
- ECON 214.3 or ECON 274.3
- ECON 304.3
- STAT 245.3

\*Students who have declared Business Economics as their major may use MATH 104 (instead of MATH 110, MATH 121 or COMM 121) as a prerequisite for COMM 203. Students are responsible for approaching the Department of Economics for the necessary prerequisite overrides.

Choose 6 credit units from the following:

- COMM 105.3
- COMM 204.3
- COMM 211.3
- COMM 304.3
- COMM 345.3
- COMM 381.3

#### **Senior Economics Electives**

Choose 6 credit units at the 300 or 400-Level

• ECON — 300-Level, 400-Level

Choose 12 credit units at the 200-Level or higher

• ECON — 200-Level, 300-Level, 400-Level

#### **Economics and/or Commerce Electives**

9 additional credit units of Economics and/or Commerce Electives at the 200-level or higher

COMM courses chosen in this requirement are not limited to those on the <u>Automatic Transfer for Courses</u> from Other Colleges list.

Choose **9 credit units** from the following:

- ECON 200-Level, 300-Level, 400-Level
- COMM 200-Level, 300-Level, 400-Level

Rationale: Students in the Business Economics major have been allowed to choose any COMM course to meet the identified requirement from the inception of the program, but this is not explicit in the Catalogue.

# Cellular, Physiological and Pharmacological Sciences

#### Minor program revisions

# Bachelor of Science (Biomedical Science) Honours and Four-year in Cellular, Physiological and Pharmacological Sciences

In the M5 Major Requirement, remove CPPS 310 as a required course; add BMSC 320, BMIS 321, CHEP 350, CPPS 310, PATH 205, and TOX 300 to the restricted elective list containing CPPS 330, NEUR 301 and NEUR 350 and increase the credit units required from 3 to 9; and add CPPS 401 (proposed below) to the final list in the requirement and reduce the required credit units from 9 to 6.

# <u>Bachelor of Science (Biomedical Science) Honours [B.Sc. (BMSC) Honours] - Cellular, Physiological and Pharmacological Sciences</u>

M5 Major Requirement (42 credit units)

- BIOL 226.3 Genes to Genomics
- CPPS 302.3 Human Physiology Transport Systems
- CPPS 303.3 Human Physiology Reproduction Growth and Energy Homeostasis
- CPPS 304.3 Introduction to Pharmacology
- CPPS 310.3 Basic Human Anatomy
- CPPS 325.3 Advanced Cell Biology
- CPPS 432.6 Undergraduate Research Project in Cellular Physiological and Pharmacological Sciences

# Choose 3 credit units from the following:

- CPPS 306.3 Systems Pharmacology I Cardiorespiratory Renal Gastrointestinal and Neuropharmacology
- CPPS 307.3 Systems Pharmacology II Chemotherapy Immune and Endocrine Pharmacology

#### Choose 3 credit units from the following:

- CPPS 308.3 Experimental Basis of Physiology and Pharmacology
- CPPS 331.3 Methods in Cell and Developmental Biology

### Choose **3 9 credit units** from the following:

- BMSC 320.3 Nucleic Acids from Central Dogma to Human Disease
- BMIS 319.3 Vaccinology Principles and Practice
- BMIS 321.3 Principles of Immunology
- CHEP 350.3 Introduction to Epidemiology
- CPPS 310.3 Basic Human Anatomy
- CPPS 330.3 The Principles of Developmental Biology
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- NEUR 350.3 Fundamental Neuroscience
- PATH 205.3 Survey of Pathology
- TOX 300.3 General Principles of Toxicology

#### Choose 9 6 credit units from the following:

- <u>CPPS 337.3</u> Experimental Design and the Health Care System or <u>CPPS 417.3</u> The Business of Health Care
- CPPS 400.3 Clinical and Biomedical Imaging
- CPPS 401.3 Human Skeletal Biology Across the Lifespan
- CPPS 402.3 Immunometabolism in Health and Disease
- CPPS 403.3 Physiological Genomics and Pharmacogenetics
- CPPS 405.3 Current Topics in Cellular Physiological and Pharmacological Sciences
- CPPS 406.3 Comparative Vertebrate Histology
- CPPS 407.3 Advances in Anatomy and Histology
- CPPS 415.3 Advances in Cardiovascular Physiology and Pharmacology
- <u>NEUR 404.3</u> Neurophysiology and Neuropharmacology
- NEUR 480.3 Neurobiology of Learning and Memory

# <u>Bachelor of Science (Biomedical Science) Four-year [B.Sc. (BMSC) Four-Year] - Cellular, Physiological and Pharmacological Sciences</u>

M5 Major Requirement (36 credit units)

- BIOL 226.3 Genes to Genomics
- CPPS 302.3 Human Physiology Transport Systems
- CPPS 303.3 Human Physiology Reproduction Growth and Energy Homeostasis
- CPPS 304.3 Introduction to Pharmacology
- CPPS 310.3 Basic Human Anatomy
- CPPS 325.3 Advanced Cell Biology

#### Choose 3 credit units from the following:

- <u>CPPS 306.3</u> Systems Pharmacology I Cardiorespiratory Renal Gastrointestinal and Neuropharmacology
- CPPS 307.3 Systems Pharmacology II Chemotherapy Immune and Endocrine Pharmacology

### Choose 3 credit units from the following:

- CPPS 308.3 Experimental Basis of Physiology and Pharmacology
- CPPS 331.3 Methods in Cell and Developmental Biology

#### Choose **3 9 credit units** from the following:

- BMSC 320.3 Nucleic Acids from Central Dogma to Human Disease
- BMIS 319.3 Vaccinology Principles and Practice
- BMIS 321.3 Principles of Immunology
- CHEP 350.3 Introduction to Epidemiology
- CPPS 310.3 Basic Human Anatomy
- CPPS 330.3 The Principles of Developmental Biology
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- NEUR 350.3 Fundamental Neuroscience
- PATH 205.3 Survey of Pathology
- TOX 300.3 General Principles of Toxicology

#### Choose 9 6 credit units from the following:

- <u>CPPS 337.3</u> Experimental Design and the Health Care System or <u>CPPS 417.3</u> The Business of Health Care
- CPPS 400.3 Clinical and Biomedical Imaging
- CPPS 401.3 Human Skeletal Biology Across the Lifespan
- CPPS 402.3 Immunometabolism in Health and Disease
- CPPS 403.3 Physiological Genomics and Pharmacogenetics
- CPPS 405.3 Current Topics in Cellular Physiological and Pharmacological Sciences
- CPPS 406.3 Comparative Vertebrate Histology
- CPPS 407.3 Advances in Anatomy and Histology
- CPPS 415.3 Advances in Cardiovascular Physiology and Pharmacology
- <u>NEUR 404.3</u> Neurophysiology and Neuropharmacology
- NEUR 480.3 Neurobiology of Learning and Memory

Rationale: The BMSC program and CPPS major are continuing to grow and are beginning to exceed the capacity that can be accommodated in the anatomy lab for CPPS 310. Cadaveric material is limited and we will not be able to expand the number of lab sections for this course beyond 4 due to priority being given to the UGME, PT and DENT programs. It was unanimously agreed by the Department of Anatomy, Physiology and Pharmacology that gross anatomy and a cadaveric lab should not be mandatory for CPPS students but should be made an elective for those students who would still like to take the course. All courses proposed to be added to the major are relevant to the fields focused on in this major (cell biology, physiology, and pharmacology) and/or related to the future careers that many students in the CPPS major are working towards (medicine). Their addition will provide needed flexibility to allow our students to complete their program in a timely manner.

The CPPS major is continuing to grow and our 400-level courses are becoming too large. This change will reduce enrolment in our 400-level courses so that our 400-level courses can continue to include written and oral components. The 300-level courses included in the list of electives to which the credit units are being moved have capacity for enrolment expansion. This change will also give students more choice in their major since the list of electives the credit units are being added to will include additional relevant courses from outside of our department.

#### New course(s):

### CPPS 401.3 Human Skeletal Biology Across the Lifespan

2 (3L) This course explores the skeleton, focusing on bone, as a dynamic organ system, which undergoes complex morphological and microstructural change across our lifespans. The histology and cell biology of bone are first reviewed to provide a foundation for understanding the basis for skeletal changes. Next, the course provides a life-span perspective on normal physiological and common pathological processes that play out across our lives including: 1) growth and development, 2) maintenance in adulthood, and, ultimately, 3) senescence. Theoretical perspectives as well as analytical methods (e.g. histological, molecular, imaging) are integrated into the discussion of relevant topics. This course is intended for those with an interest in skeletal biology, spanning the natural and social sciences, as well as those interested in biomedicine and the related clinical subfields.

Prerequisite(s): One of CPPS 310.3, CPPS 221.3, ARCH 270.3 or ARCH 470.3 Instructor(s): David Cooper and Heather Szabo-Rogers

Rationale: The CPPS major does not currently offer a course focused on skeletal biology and no such a course is not offered by any department in the College of Arts and Science. This course will give students the opportunity to expand their knowledge of skeletal biology. This topic reflects a major area of research in the Department of Anatomy, Physiology, and Pharmacology.

# **Chemistry**

# Minor program revisions

# Bachelor of Science Honours, Double Honours, Four-year and Three-year in Chemistry

Revise program requirements to explicitly allow MATH 133.3 and MATH 134.3 in the Quantitative Reasoning Requirement, PHYS 156.3 in lieu of PHYS 115.3 and CMPT 142.3 in lieu of CMPT 141.3 in the C3 Cognate Requirement, and to allow students to use CHEM 146.3 (prerequisite CHEM 142.1) in lieu of CHEM 112.3 and CHEM 115.3 in the C4 Major Requirement.

# Bachelor of Science Honours (B.Sc. Honours) - Chemistry

C1 College Requirement (15 credit units)

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### **Quantitative Reasoning**

Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

# Choose 3 credit units from the following:

- MATH 116.3 Calculus I
- MATH 134.3 Engineering Mathematics II
- MATH 177.3 Advanced Calculus II

# C3 Cognate Requirement (15 credit units) Junior course requirements (9 credit units):

- PHYS 115.3 Physics and the Universe or PHYS 156.3 Electromagnetism and Waves for Engineers
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology (PHYS 125 recommended)

# Choose 3 credit units from the following:

Biology

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#### Computer Science

- CMPT 140.3 Introduction to Creative Computing
- CMPT 141.3 Introduction to Computer Science or CMPT 142.3 Introduction to Computer Science for Engineers
- <u>CMPT 145.3</u> Principles of Computer Science

Earth Sciences

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#### C4 Major Requirement (54 credit units)

# Junior course requirements (3 - 6 credit units):

- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials and <u>CHEM 115.3</u> General Chemistry II Chemical Processes; or <u>CHEM 146.3</u> General Chemistry for Engineering
- CHEM 115.3 General Chemistry II Chemical Processes

## Senior course requirements (48 – 51 credit units):

- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 250.3 Introduction to Organic Chemistry
- CHEM 255.3 Bio Organic Chemistry
- CHEM 322.3 Analytical Chemistry II
- CHEM 332.3 Inorganic Chemistry II
- CHEM 344.3 Introductory Chemical Quantum Mechanics
- CHEM 402.0 Seminar

## Choose at least 6 credit units from the following:

- CHEM 380.3 3rd Year Research
- CHEM 482.3 4th Year Research
- CHEM 483.6 4th Year Research

## Choose 18 - 21 credit units from the following to meet the 54 credit unit requirement:

- BMIS 405.3 Structure and Function of Biomolecules
- CHE 223.3 Chemical Thermodynamics
- CHEM 200-Level, 300-Level, 400-Level
- Up to 6 credit units from <u>BMSC 320.3</u> Nucleic Acids From Central Dogma to Human Disease, <u>BMIS 310.3</u> Proteins and Enzymes, <u>BMIS 412.3</u> Protein Structure Function and Engineering

## Bachelor of Science Four-year (B.Sc. Four-year) - Chemistry

## C1 College Requirement (15 credit units)

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#### **Quantitative Reasoning**

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

## Choose 3 credit units from the following:

- MATH 116.3 Calculus I
- MATH 134.3 Engineering Mathematics II
- MATH 177.3 Advanced Calculus II

# C3 Cognate Requirement (15 credit units)

# Junior course requirements (9 credit units):

- PHYS 115.3 Physics and the Universe or PHYS 156.3 Electromagnetism and Waves for Engineers
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology (PHYS 125 recommended)

## Choose 3 credit units from the following:

#### Biology

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#### Computer Science

- CMPT 140.3 Introduction to Creative Computing
- CMPT 141.3 Introduction to Computer Science or CMPT 142.3 Introduction to Computer Science for Engineers
- CMPT 145.3 Principles of Computer Science

#### Earth Sciences

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# C4 Major Requirement (48 credit units)

## Junior course requirements (3 - 6 credit units):

- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials and <u>CHEM 115.3</u> General Chemistry II Chemical Processes; or <u>CHEM 146.3</u> General Chemistry for Engineering
- CHEM 115.3 General Chemistry II Chemical Processes

## Senior course requirements (42 – 45 credit units):

- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 250.3 Introduction to Organic Chemistry
- CHEM 402.0 Seminar

#### Choose at least 6 credit units from the following:

- CHEM 380.3 3rd Year Research
- CHEM 482.3 4th Year Research
- CHEM 483.6 4th Year Research

# Choose at least 9 credit units from the following:

- CHEM 255.3 Bio Organic Chemistry
- CHEM 322.3 Analytical Chemistry II
- CHEM 332.3 Inorganic Chemistry II
- CHEM 344.3 Introductory Chemical Quantum Mechanics

# Choose 15 -18 credit units from the following to meet the 48 credit unit requirement:

- BMIS 405.3 Structure and Function of Biomolecules
- CHE 223.3 Chemical Thermodynamics
- CHEM 200-Level, 300-Level, 400-Level
- Up to 6 credit units from <u>BMSC 320.3</u> Nucleic Acids From Central Dogma to Human Disease, <u>BMIS 310.3</u> Proteins and Enzymes, <u>BMIS 412.3</u> Protein Structure Function and Engineering

## Bachelor of Science Three-year (B.Sc. Three-year) - Chemistry

## C1 College Requirement (12 credit units)

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## **Quantitative Reasoning**

Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 116.3 Calculus II
- MATH 133.4 Engineering Mathematics I
- MATH 134.3 Engineering Mathematics II
- MATH 176.3 Advanced Calculus I
- MATH 177.3 Advanced Calculus II

# C3 Cognate Requirement (12 credit units) Junior course requirements (9 credit units):

Choose 9 credit units from the following:

#### **Biology**

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#### **Computer Science**

- CMPT 140.3 Introduction to Creative Computing
- CMPT 141.3 Introduction to Computer Science or CMPT 142.3 Introduction to Computer Science for Engineers
- CMPT 145.3 Principles of Computer Science

# **Earth Sciences**

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#### **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- PHYS 115.3 Physics and the Universe or PHYS 156.3 Electromagnetism and Waves for Engineers
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

#### C4 Major Requirement (30 credit units)

Junior course requirements (3 - 6 credit units):

- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials and <u>CHEM 115.3</u> General Chemistry II Chemical Processes; or <u>CHEM 146.3</u> General Chemistry for Engineering
- <u>CHEM 115.3</u> General Chemistry II Chemical Processes

#### Senior course requirements (24 – 27 credit units):

- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 250.3 Introduction to Organic Chemistry

# Choose 12 -15 credit units from the following to meet the 30 credit unit requirement:

• CHEM — 200-Level, 300-Level, 400-Level

# Bachelor of Science Double Honours - Chemistry - Major 1

C1 College Requirement (15 credit units)

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## **Quantitative Reasoning**

Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### Choose 3 credit units from the following:

- MATH 116.3 Calculus I
- MATH 134.3 Engineering Mathematics II
- MATH 177.3 Advanced Calculus II

# C3 Cognate Requirement (9 credit units)

#### Junior course requirements:

- PHYS 115.3 Physics and the Universe or PHYS 156.3 Electromagnetism and Waves for Engineers
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology (PHYS 125 recommended)

# Choose 3 credit units from the following:

Biology

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# Computer Science

- CMPT 140.3 Introduction to Creative Computing
- CMPT 141.3 Introduction to Computer Science or CMPT 142.3 Introduction to Computer Science for Engineers
- CMPT 145.3 Principles of Computer Science

## Earth Sciences

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#### C4 Major Requirement (36 credit units)

# Junior course requirements (3 – 6 credit units):

- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials and <u>CHEM 115.3</u> General Chemistry II Chemical Processes; or <u>CHEM 146.3</u> General Chemistry for Engineering
- CHEM 115.3 General Chemistry II Chemical Processes

# Senior course requirements (30 – 33 credit units):

- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 250.3 Introduction to Organic Chemistry

- CHEM 255.3 Bio Organic Chemistry
- CHEM 322.3 Analytical Chemistry II
- CHEM 332.3 Inorganic Chemistry II
- CHEM 344.3 Introductory Chemical Quantum Mechanics
- CHEM 402.0 Seminar

#### Choose 6 credit units from the following:

- CHEM 380.3 3rd Year Research
- CHEM 482.3 4th Year Research
- CHEM 483.6 4th Year Research

If an additional 3 credit units are required to meet the 36 credit unit requirement, select from the following:

• CHEM — 200-Level, 300-Level, 400-Level

# **Double Honours - Chemistry - Major 2**

Requirements (36 credit units)

Junior course requirements (3 – 6 credit units):

- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials and <u>CHEM 115.3</u> General Chemistry II Chemical Processes; or <u>CHEM 146.3</u> General Chemistry for Engineering
- CHEM 115.3 General Chemistry II Chemical Processes

# Senior course requirements (30 – 33 credit units):

- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 250.3 Introduction to Organic Chemistry
- CHEM 255.3 Bio Organic Chemistry
- CHEM 322.3 Analytical Chemistry II
- CHEM 332.3 Inorganic Chemistry II
- CHEM 344.3 Introductory Chemical Quantum Mechanics
- CHEM 402.0 Seminar

#### Choose **6 credit units** from the following:

- CHEM 380.3 3rd Year Research
- CHEM 482.3 4th Year Research
- CHEM 483.6 4th Year Research

If an additional 3 credit units are required to meet the 36 credit unit requirement, select from the following:

CHEM — 200-Level, 300-Level, 400-Level

Rationale: Arts & Science accepts MATH 133 in lieu of MATH 110 and MATH 134 in lieu of MATH 116. CMPT 142 is equivalent to CMPT 141. PHYS 156 has been approved as an alternate prerequisite for PHYS 117 and PHYS 125. CHEM 146 is equivalent to CHEM 115 and in combination with CHEM 142.1 and skills gained in PHYS 152.1 will provide sufficient preparation for students to be successful in 200-level CHEM courses. (CHEM 142.1 is not eligible to be added to a B.Sc. program in Arts and Science, but the prerequisite structure of CHEM 146 ensures that it will be taken.) Credit unit adjustments are made in the C4 Major Requirement to account for the difference between CHEM 112 + CHEM 115 and CHEM 146.

The purpose in making the changes is to have the added courses appear in the program description so that students considering a change from Engineering to Chemistry after completing first year will know for certain that their these courses will transfer into the Chemistry program.

## Classical, Medieval and Renaissance Studies

#### Minor program revisions

Replace explicit list of senior CMRS courses in the A4 Major Requirement with inclusive list of senior CMRS courses. Add HIST 204, 301, 305 and 473 to the list of restricted elective courses in the A4 Major Requirement for all levels.

# Bachelor of Arts Honours (B.A. Honours) - Classical, Medieval & Renaissance Studies A4 Major Requirement (66 credit units)

Of the total 66 credit units required, no more than 18 credit units may be at the 100-level, at least 6 credit units must be at the 300-level, and at least 12 credit units at the 400-level (includes **CMRS 401.3** CMRS Texts and Themes and **CMRS 402.3** Directed Research).

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#### Choose 42 credit units from the following:

## CMRS 433 may only be counted if the object of study is a historical document.

**Recommendations:** Honours students working toward specific careers (e.g. Law, Museum & Archives, Teaching and Academics, Public History and Digital Humanities) are strongly encouraged to consult with the CMRS Director to ensure that their selection of courses will support their goals.

\*A shell course that may be taken more than once must have its content confirmed by Program Director

- ARCH 116.3 Introduction to Near Eastern and Classical Archaeology
- ARCH 244.3 Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- ARCH 252.3 Near Eastern Archaeological Field Work
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- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CMRS Special Topics can be used with the permission of Program Director
- CMRS 333.3 Exploring Medieval and Early Modern Manuscripts
- CMRS 403.3 Analysis and Public Exhibition of Cultural Artifacts
- CMRS 433.3 Advanced Manuscript Studies (if the object of study is a historical document)
- CTST 200.3 Introduction to Catholic Studies
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- ENG 212.3 A History of English Words
- ENG 213.3 A History of English Sounds and Spelling
- ENG 217.3 Mythologies of Northern Europe
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- HIST 115.3 History Matters Ideas and Culture \* (only when a CMRS approved topic)
- HIST 145.3 History Matters War Violence and Politics \* (only when a CMRS approved topic)
   HIST 185.3 History Matters Conflict Law Politics and the State \* (only when a CMRS approved

topic)

HIST 194.3 History Matters Topics in European History \* (only when a CMRS approved topic)

- HIST 202.3 Formation of Europe 300 to 1000
- HIST 203.3 Ancient Greece Politics Society and Culture
- HIST 204.3 Animals in the Greek and Roman World
- HIST 205.3 Medieval Europe 1000 to 1400
- HIST 208.3 The Roman Republic Growth of a Mediterranean State 753 to 27 BCE
- HIST 209.3 The Roman Empire Politics Society and Culture Augustus to Constantine
- HIST 211.3 Martyrs Mystics and Madmen Making the Medieval Saint
- **HIST 214.3** History in Film \* (only when a CMRS approved topic)
- HIST 217.3 The Later Roman Empire Crisis and Continuity from Constantine to Justinian
- HIST 221.3 Sub Roman Anglo Saxon and Viking Britain 400 to 1066
- HIST 222.3 Medieval England 1000 to 1500
- HIST 223.3 Age of the Renaissance
- HIST 273.3 History of Ancient Medicine
- HIST 301.3 Greek and Roman Historians
- **HIST 305.3** Greek and Roman Satire (proposed concurrently)
- HIST 307.3 Seminar in Ancient Medieval and Renaissance Biography
- HIST 308.6 Rome Building and Living in the Ancient City
- HIST 309.3 Crusades and Aftermath
- HIST 320.3 Pagans Christians Barbarians Identity and Empire in the Roman World
- HIST 331.3 Magic Science and Religion before the Scientific Revolution
- HIST 335.3 Spectacles of Death in the Roman World
- HIST 402.3 Aspects of Late Antiquity
- HIST 403.3 Topics in the History of Early Medieval England The Anglo Saxon Renaissance
- HIST 414.3 Gender Sexuality and Masculinity in the Middle Ages and Renaissance
- HIST 473.3 The Life and Legend of Alexander the Great
- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- ..
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

# <u>Bachelor of Arts Four-year (B.A. Four-year) - Classical, Medieval and Renaissance Studies</u> A4 Major Requirement (51 credit units)

Of the total 51 credit units required, no more than 18 credit units may be at the 100-level, at least 6 credit units must be at the 300-level, and at least 6 credit units must be at the 400-level.

. . .

Choose **33 credit units** from any of the following:

CMRS 433 may only be counted if the object of study is a historical document.

**Recommendations:** Honours students working toward specific careers (e.g. Law, Museum & Archives, Teaching and Academics, Public History and Digital Humanities) are strongly encouraged to consult with the CMRS Director to ensure that their selection of courses will support their goals.

\*A shell course that may be taken more than once must have its content confirmed by Program Director

- ARCH 116.3 Introduction to Near Eastern and Classical Archaeology
- ARCH 244.3 Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- ARCH 252.3 Near Eastern Archaeological Field Work
- ...

- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CMRS Special Topics can be used with the permission of Program Director
- CMRS 333.3 Exploring Medieval and Early Modern Manuscripts
- CMRS 403.3 Analysis and Public Exhibition of Cultural Artifacts
- CMRS 433.3 Advanced Manuscript Studies (if the object of study is a historical document)
- CTST 200.3 Introduction to Catholic Studies
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- ENG 212.3 A History of English Words
- ENG 213.3 A History of English Sounds and Spelling
- ENG 217.3 Mythologies of Northern Europe
- ..
- HIST 115.3 History Matters Ideas and Culture \* (only when a CMRS approved topic)
- HIST 145.3 History Matters War Violence and Politics \* (only when a CMRS approved topic)
   HIST 185.3 History Matters Conflict Law Politics and the State \* (only when a CMRS approved topic)
  - HIST 194.3 History Matters Topics in European History \* (only when a CMRS approved topic)
- HIST 202.3 Formation of Europe 300 to 1000
- HIST 203.3 Ancient Greece Politics Society and Culture
- HIST 204.3 Animals in the Greek and Roman World
- HIST 205.3 Medieval Europe 1000 to 1400
- HIST 208.3 The Roman Republic Growth of a Mediterranean State 753 to 27 BCE
- HIST 209.3 The Roman Empire Politics Society and Culture Augustus to Constantine
- HIST 211.3 Martyrs Mystics and Madmen Making the Medieval Saint
- HIST 214.3 History in Film \* (only when a CMRS approved topic)
- HIST 217.3 The Later Roman Empire Crisis and Continuity from Constantine to Justinian
- HIST 221.3 Sub Roman Anglo Saxon and Viking Britain 400 to 1066
- HIST 222.3 Medieval England 1000 to 1500
- HIST 223.3 Age of the Renaissance
- HIST 273.3 History of Ancient Medicine
- HIST 301.3 Greek and Roman Historians
- **HIST 305.3** Greek and Roman Satire (proposed concurrently)
- HIST 307.3 Seminar in Ancient Medieval and Renaissance Biography
- <u>HIST 308.6</u> Rome Building and Living in the Ancient City
- HIST 309.3 Crusades and Aftermath
- HIST 320.3 Pagans Christians Barbarians Identity and Empire in the Roman World
- HIST 331.3 Magic Science and Religion before the Scientific Revolution
- HIST 335.3 Spectacles of Death in the Roman World
- HIST 402.3 Aspects of Late Antiquity
- HIST 403.3 Topics in the History of Early Medieval England The Anglo Saxon Renaissance
- HIST 414.3 Gender Sexuality and Masculinity in the Middle Ages and Renaissance
- HIST 473.3 The Life and Legend of Alexander the Great
- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- . . . .

- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

# Bachelor of Arts Double Honours - Classical, Medieval & Renaissance Studies - Major 1 A4 Major Requirement (39 credit units)

Of the total 39 credit units required, no more than 15 credit units may be at the 100-level, at least 6 credit units must be at the 300-level and 12 credit units at the 400-level (includes **CMRS 401.3** CMRS Texts and Themes and **CMRS 402.3** Directed Research).

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Choose 15 credit units from any of the following:

CMRS 433 may only be counted if the object of study is a historical document.

**Recommendations:** Double Honours students working toward specific careers (e.g. Law, Museum & Archives, Teaching and Academics, Public History and Digital Humanities) are strongly encouraged to consult with the CMRS Director to ensure that their selection of courses will support their goals. \*A shell course that may be taken more than once must have its content confirmed by Program Director

- ARCH 116.3 Introduction to Near Eastern and Classical Archaeology
- ARCH 244.3 Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- ARCH 252.3 Near Eastern Archaeological Field Work
- ...
- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CMRS Special Topics can be used with the permission of Program Director
- CMRS 333.3 Exploring Medieval and Early Modern Manuscripts
- CMRS 403.3 Analysis and Public Exhibition of Cultural Artifacts
- CMRS 433.3 Advanced Manuscript Studies (if the object of study is a historical document)
- CTST 200.3 Introduction to Catholic Studies
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- **ENG 212.3** A History of English Words
- ENG 213.3 A History of English Sounds and Spelling
- ENG 217.3 Mythologies of Northern Europe
- . . .
- HIST 115.3 History Matters Ideas and Culture \* (only when a CMRS approved topic)
- HIST 145.3 History Matters War Violence and Politics \* (only when a CMRS approved topic)
   HIST 185.3 History Matters Conflict Law Politics and the State \* (only when a CMRS approved topic)
  - HIST 194.3 History Matters Topics in European History \* (only when a CMRS approved topic)
- HIST 202.3 Formation of Europe 300 to 1000
- HIST 203.3 Ancient Greece Politics Society and Culture
- HIST 204.3 Animals in the Greek and Roman World
- HIST 205.3 Medieval Europe 1000 to 1400
- HIST 208.3 The Roman Republic Growth of a Mediterranean State 753 to 27 BCE
- HIST 209.3 The Roman Empire Politics Society and Culture Augustus to Constantine
- HIST 211.3 Martyrs Mystics and Madmen Making the Medieval Saint
- **HIST 214.3** History in Film \* (only when a CMRS approved topic)
- HIST 217.3 The Later Roman Empire Crisis and Continuity from Constantine to Justinian

- HIST 221.3 Sub Roman Anglo Saxon and Viking Britain 400 to 1066
- HIST 222.3 Medieval England 1000 to 1500
- HIST 223.3 Age of the Renaissance
- HIST 273.3 History of Ancient Medicine
- HIST 301.3 Greek and Roman Historians
- HIST 305.3 Greek and Roman Satire (proposed concurrently)
- HIST 307.3 Seminar in Ancient Medieval and Renaissance Biography
- HIST 308.6 Rome Building and Living in the Ancient City
- HIST 309.3 Crusades and Aftermath
- HIST 320.3 Pagans Christians Barbarians Identity and Empire in the Roman World
- HIST 331.3 Magic Science and Religion before the Scientific Revolution
- HIST 335.3 Spectacles of Death in the Roman World
- HIST 402.3 Aspects of Late Antiquity
- HIST 403.3 Topics in the History of Early Medieval England The Anglo Saxon Renaissance
- HIST 414.3 Gender Sexuality and Masculinity in the Middle Ages and Renaissance
- HIST 473.3 The Life and Legend of Alexander the Great
- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- . .
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

# Bachelor of Arts Double Honours - Classical, Medieval & Renaissance Studies - Major 2 Requirements (39 credit units)

Of the total 39 credit units required, no more than 15 credit units may be at the 100-level, at least 6 credit units must be at the 300-level and 12 credit units at the 400-level (includes <u>CMRS 401.3</u> CMRS Texts and Themes CMRS Texts and Themes and <u>CMRS 402.3</u> Directed Research Directed Research).

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Choose 15 credit units from the following:

CMRS 433 may only be counted if the object of study is a historical document.

\*A shell course that may be taken more than once must have its content confirmed by Program Director

- ARCH 116.3 Introduction to Near Eastern and Classical Archaeology
- ARCH 244.3 Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- ARCH 252.3 Near Eastern Archaeological Field Work
- ...
- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CMRS Special Topics can be used with the permission of Program Director
- CMRS 333.3 Exploring Medieval and Early Modern Manuscripts
- CMRS 403.3 Analysis and Public Exhibition of Cultural Artifacts
- CMRS 433.3 Advanced Manuscript Studies (if the object of study is a historical document)
- CTST 200.3 Introduction to Catholic Studies

- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- ENG 212.3 A History of English Words
- ENG 213.3 A History of English Sounds and Spelling
- ENG 217.3 Mythologies of Northern Europe
- ..
- HIST 115.3 History Matters Ideas and Culture \* (only when a CMRS approved topic)
- HIST 145.3 History Matters War Violence and Politics \* (only when a CMRS approved topic)
   HIST 185.3 History Matters Conflict Law Politics and the State \* (only when a CMRS approved topic)
  - HIST 194.3 History Matters Topics in European History \* (only when a CMRS approved topic)
- HIST 202.3 Formation of Europe 300 to 1000
- HIST 203.3 Ancient Greece Politics Society and Culture
- HIST 204.3 Animals in the Greek and Roman World
- HIST 205.3 Medieval Europe 1000 to 1400
- HIST 208.3 The Roman Republic Growth of a Mediterranean State 753 to 27 BCE
- HIST 209.3 The Roman Empire Politics Society and Culture Augustus to Constantine
- HIST 211.3 Martyrs Mystics and Madmen Making the Medieval Saint
- HIST 214.3 History in Film \* (only when a CMRS approved topic)
- HIST 217.3 The Later Roman Empire Crisis and Continuity from Constantine to Justinian
- HIST 221.3 Sub Roman Anglo Saxon and Viking Britain 400 to 1066
- HIST 222.3 Medieval England 1000 to 1500
- HIST 223.3 Age of the Renaissance
- HIST 273.3 History of Ancient Medicine
- HIST 301.3 Greek and Roman Historians
- HIST 305.3 Greek and Roman Satire (proposed concurrently)
- HIST 307.3 Seminar in Ancient Medieval and Renaissance Biography
- HIST 308.6 Rome Building and Living in the Ancient City
- HIST 309.3 Crusades and Aftermath
- HIST 320.3 Pagans Christians Barbarians Identity and Empire in the Roman World
- HIST 331.3 Magic Science and Religion before the Scientific Revolution
- HIST 335.3 Spectacles of Death in the Roman World
- HIST 402.3 Aspects of Late Antiquity
- HIST 403.3 Topics in the History of Early Medieval England The Anglo Saxon Renaissance
- HIST 414.3 Gender Sexuality and Masculinity in the Middle Ages and Renaissance
- HIST 473.3 The Life and Legend of Alexander the Great
- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- ,
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

## Classical, Medieval & Renaissance Studies - Minor

Requirements (24 credit units)

- CMRS 110.3 The Graeco Roman Tradition Evolution and Reception
- CMRS 111.3 Medieval and Renaissance Civilization

Choose **18 credit units** from one of the following, such that 12 credit units are at the 200-level or above: CMRS 433 may only be counted if the object of study is a historical document.

\*A shell course that may be taken more than once must have its content confirmed by Program Director

- ARCH 116.3 Introduction to Near Eastern and Classical Archaeology
- ARCH 244.3 Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- ARCH 252.3 Near Eastern Archaeological Field Work
- ..
- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CMRS Special Topics can be used with the permission of Program Director
- CMRS 333.3 Exploring Medieval and Early Modern Manuscripts
- CMRS 403.3 Analysis and Public Exhibition of Cultural Artifacts
- CMRS 433.3 Advanced Manuscript Studies (if the object of study is a historical document)
- CTST 200.3 Introduction to Catholic Studies
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- ENG 212.3 A History of English Words
- ENG 213.3 A History of English Sounds and Spelling
- ENG 217.3 Mythologies of Northern Europe
- ..
- HIST 115.3 History Matters Ideas and Culture \* (only when a CMRS approved topic)
- HIST 145.3 History Matters War Violence and Politics \* (only when a CMRS approved topic)
   HIST 185.3 History Matters Conflict Law Politics and the State \* (only when a CMRS approved topic)
  - HIST 194.3 History Matters Topics in European History \* (only when a CMRS approved topic)
- HIST 202.3 Formation of Europe 300 to 1000
- HIST 203.3 Ancient Greece Politics Society and Culture
- HIST 204.3 Animals in the Greek and Roman World
- HIST 205.3 Medieval Europe 1000 to 1400
- HIST 208.3 The Roman Republic Growth of a Mediterranean State 753 to 27 BCE
- HIST 209.3 The Roman Empire Politics Society and Culture Augustus to Constantine
- HIST 211.3 Martyrs Mystics and Madmen Making the Medieval Saint
- **HIST 214.3** History in Film \* (only when a CMRS approved topic)
- HIST 217.3 The Later Roman Empire Crisis and Continuity from Constantine to Justinian
- HIST 221.3 Sub Roman Anglo Saxon and Viking Britain 400 to 1066
- HIST 222.3 Medieval England 1000 to 1500
- HIST 223.3 Age of the Renaissance
- HIST 273.3 History of Ancient Medicine
- HIST 301.3 Greek and Roman Historians
- HIST 305.3 Greek and Roman Satire (proposed concurrently)
- HIST 307.3 Seminar in Ancient Medieval and Renaissance Biography
- HIST 308.6 Rome Building and Living in the Ancient City
- HIST 309.3 Crusades and Aftermath
- HIST 320.3 Pagans Christians Barbarians Identity and Empire in the Roman World
- HIST 331.3 Magic Science and Religion before the Scientific Revolution
- HIST 335.3 Spectacles of Death in the Roman World
- HIST 402.3 Aspects of Late Antiquity
- HIST 403.3 Topics in the History of Early Medieval England The Anglo Saxon Renaissance
- HIST 414.3 Gender Sexuality and Masculinity in the Middle Ages and Renaissance

- HIST 473.3 The Life and Legend of Alexander the Great
- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- ..
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

Rationale: Changing to an inclusive list will ensure that all new CMRS courses are automatically counted in the major, without needing to submit a program revision. As these courses are offered in the subject of the major, the inclusive requirement makes sense. The added HIST courses are relevant to the field and will provide majors with more flexibility.

## **Computer Science**

#### Minor program revisions

# Bachelor of Science Honours, Double Honours, Four-year and Three-year in Computer Science

- 1. Add CMPT 263.3 (proposed below) where CMPT 260.3 appears.
- 2. For Honours Software Engineering only: Add MATH 266 to the list of MATH/STAT/PHIL courses at the end of the C4 Major Requirement.
- 3. Move the requirement to take 3 credit units from MATH 110, 133, or 176 from the C4 Major Requirement to the C3 Cognate Requirement, and adjust credit unit counts accordingly. (Correct Cognate Requirement total in the Double Honours Major 1.)
- 4. Replace COMM 102 with COMM 101 in the Business Science list in the C3 Cognate Requirement in the Honours and Four-year programs.
- 5. Add Specializations to the C4 Major Requirement for Honours and Four-year programs. Specializations are noted on student transcripts (as "concentrations").

#### Bachelor of Science Honours (B.Sc. Honours) - Computer Science

C3 Cognate Requirement (12 - 15 - 18 credit units)

Junior course requirements:

Choose **9 credit units** from the following areas, such that no more than 6 credit units are from any one area:

# **Biology**

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life

# Chemistry

- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes
- CHEM 250.3 Introduction to Organic Chemistry

#### **Earth Science**

- GEOG 120.3 Introduction to Global Environmental Systems
- GEOL 121.3 Earth Processes
- **GEOL 122.3** Earth History

# **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- ASTR 213.3 Astronomical Photometry

- PHYS 115.3 Physics and the Universe
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

# **Senior Additional course requirements:**

PHIL 232.3 Ethics and Professional Responsibility in Computer Science OR <u>GE</u>
 449.3 Engineering in Society

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### **Business Science**

If a course in Economics was chosen in C2 above, then choose 3 additional credit units of Electives in C5. If a course in Economics was **not** chosen in C2 above, then 3 credit units are required from:

## Choose 0 - 3 credit units from the following:

- AREC 230.3 Innovation and Entrepreneurship
- COMM 101.3 Introduction to Business
- COMM 102.3 Introduction to Business Management
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- COMM 205.3 Introduction to Operations Management
- COMM 210.3 Introduction to Management Accounting
- COMM 304.3 Introduction to Business Law
- ECON 111.3 Introductory Microeconomics
- ECON 114.3 Introductory Macroeconomics

#### C4 Major Requirement (63 60 credit units)

- CMPT 116.3 or CMPT 141.3 Introduction to Computer Science
- CMPT 117.3 or CMPT 145.3 Principles of Computer Science
- CMPT 214.3 Programming Principles and Practice
- CMPT 215.3 Introduction to Computer Organization and Architecture or CME 331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 360.3 Machines and Algorithms
- CMPT 364.3 Automata and Formal Languages
- CMPT 400.3 Research Topics in Computer Science
- **STAT 241.3** Probability Theory

#### Choose 15 credit units from the following:

- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 332.3 Operating Systems Concepts
- CMPT 340.3 Programming Language Paradigms
- CMPT 353.3 Full Stack Web Programming
- CMPT 370.3 Intermediate Software Engineering
- CMPT 381.3 Implementation of Graphical User Interfaces

Choose 6 credit units of CMPT courses with number 410 or higher:

Note: Courses numbered 400 - 409 may not be used to fulfill this requirement

- CME 433.3 Digital Systems Architecture
- CME 435.3 Verification of Digital Systems
- <u>CMPT 400-Level</u>

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

# Choose 3 credit units from the following:

- MATH 116.3 Calculus II
- MATH 134.3 Engineering Mathematics II
- MATH 177.3 Advanced Calculus II

#### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology\* (recommended)
- STAT 245.3 Introduction to Statistical Methods\*
- <u>EE 216.3</u> Probability Statistics and Numerical Methods (only open to students in the College of Engineering)

\*Though not recommended, other courses from list A or C in the **Statistics Course Regulations**, in which the student received a grade of 70% or higher, may be used in lieu of STAT 242 or STAT 245. Students should be aware that substituted courses will not be accepted as prerequisites for CMPT 394, CMPT 423, or CMPT 489.

Students may choose to focus their choices in C4 Major and C5 Electives requirements to develop specialized knowledge and skills in some areas of Computer Science. Students can achieve as many of these as they wish, but are not obligated to obtain any specialization. A Specialization(s) completed with the degree will be noted on the transcript. Each specialization comprises three courses at the 300- and 400-level as listed here and associated prerequisites or related courses:

#### Specialization in **Algorithmics**

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 280.3
- CMPT 360.3
- CMPT 364.3
- CMPT 463.3

#### Specialization in Artificial Intelligence

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 280.3
- STAT 242.3\*
- CMPT 317.3
- CMPT 423.3
- CMPT 489.3

## Specialization in **Programming Languages**

- CMPT 145.3
- CMPT 214.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 340.3

# Choose **6 credit units** from the following:

- CMPT435.3
- CMPT440.3
- CMPT442.3

# Specialization in Web Development

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 353.3
- CMPT 381.3
- CMPT 436.3

# Specialization in **Software Development**

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 370.3
- CMPT 371.3
- CMPT 470.3

# Specialization in Computer Systems

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3
- CMPT 332.3
- CMPT 432.3

## Choose **3 credit units** from the following:

- CMPT 433.3
- CMPT 434.3

## Specialization in **Cybersecurity**

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3
- CMPT 332.3

- CMPT 438.3
- CMPT 439.3

# Specialization in Computer Graphics

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 485.3
- CMPT 487.3
- MATH 266.3

# Specialization in Computer Game Development

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 306.3
- CMPT 381.3
- CMPT 406.3
- CMPT 481.3

#### Specialization in Information Visualization

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 394.3
- CMPT 484.3

## Specialization in Computational Modelling

- BINF 451.3 (requires one of BIOL 120 or BMSC 200 as a prerequisite)
- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 451.3

#### Specialization in Social Computing

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 317.3 or CMPT 353.3
- CMPT 412.3
- PHIL 232.3

MATH 110/133/176, MATH 163 and MATH164 are required for all Computer Science majors, and must be taken prior to some of the courses in these specializations. Also, the statistics note (\*) above applies.

# <u>Bachelor of Science Honours Software Engineering Option (B.Sc. Honours SE) -Computer Science</u>

C3 Cognate Requirement (12 - 15 - 18 credit units)

Junior course requirements:

Choose **9 credit units** from the following areas, such that no more than 6 credit units are from any one area:

### **Biology**

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life

#### Chemistry

- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes
- CHEM 250.3 Introduction to Organic Chemistry

#### **Earth Science**

- **GEOG 120.3** Introduction to Global Environmental Systems
- **GEOL 121.3** Earth Processes
- GEOL 122.3 Earth History

#### **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- ASTR 213.3 Astronomical Photometry
- PHYS 115.3 Physics and the Universe
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

#### Senior Additional course requirements:

PHIL 232.3 Ethics and Professional Responsibility in Computer Science OR <u>GE</u>
 449.3 Engineering in Society

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### **Business Science**

If a course in Economics was chosen in C2 above, then choose 3 additional credit units of Electives in C5. If a course in Economics was **not** chosen in C2 above, then 3 credit units are required from:

#### Choose 0 - 3 credit units from the following:

- AREC 230.3 Innovation and Entrepreneurship
- COMM 101.3 Introduction to Business
- COMM 102.3 Introduction to Business Management
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- COMM 205.3 Introduction to Operations Management
- COMM 210.3 Introduction to Management Accounting
- COMM 304.3 Introduction to Business Law
- ECON 111.3 Introductory Microeconomics
- ECON 114.3 Introductory Macroeconomics

## C4 Major Requirement (66 63 credit units)

- CMPT 116.3 or CMPT 141.3 Introduction to Computer Science
- CMPT 117.3 or CMPT 145.3 Principles of Computer Science
- CMPT 214.3 Programming Principles and Practice
- CMPT 215.3 Introduction to Computer Organization and Architecture or CME
   331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 332.3 Operating Systems Concepts
- CMPT 340.3 Programming Language Paradigms
- CMPT 353.3 Full Stack Web Programming
- CMPT 360.3 Machines and Algorithms
- <u>CMPT 370.3</u> Intermediate Software Engineering
- CMPT 371.3 Software Management
- CMPT 470.3 Advanced Software Engineering
- CMPT 481.3 Human Computer Interaction
- STAT 241.3 Probability Theory

# Choose **6 credit units** from the following:

Note: For those students not in the Professional Internship Option, CMPT 405 and 3 additional credit units from the courses listed below are required. For those students in the Professional Internship Option, 6 additional credit units from the courses listed below are required.

- CMPT 300-Level, 400-Level
- at most 2 courses from <u>CME 332.3</u> Real Time Computing, <u>CME 341.3</u> Logic Design Using FPGAs, <u>CME 342.3</u> Introduction to Digital Integrated Circuits and System on Chip, <u>CME 433.3</u> Digital Systems Architecture, <u>CME 435.3</u> Verification of Digital Systems

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology\* (recommended)
- STAT 245.3 Introduction to Statistical Methods\*
- <u>EE 216.3</u> Probability Statistics and Numerical Methods (only open to students in the College of Engineering)

\*Though not recommended, other courses from list A or C in the **Statistics Course Regulations**, in which the student received a grade of 70% or higher, may be used in lieu of STAT 242 or STAT 245. Students should be aware that substituted courses will not be accepted as prerequisites for CMPT 394, CMPT 423, or CMPT 489.

# Choose 6 credit units from the following:

- MATH 116.3 Calculus II or MATH 134.3 Engineering Mathematics II or MATH 177.3 Advanced Calculus II
- MATH 211.3 Numerical Analysis I
- MATH 223.3 Calculus III for Engineers
- MATH 225.3 Intermediate Calculus I
- MATH 266.3 Linear Algebra II

- MATH 276.3 Vector Calculus I
- MATH 327.3 Graph Theory
- MATH 328.3 Combinatorics and Enumeration
- MATH 361.3 Group Theory and MATH 362.3 Rings and Fields
- MATH 364.3 Number Theory
- STAT 344.3 Applied Regression Analysis
- STAT 345.3 Design and Analysis of Experiments
- STAT 348.3 Sampling Techniques
- PHIL 243.3 Introduction to Symbolic Logic II

Students may choose to focus their choices in C4 Major and C5 Electives requirements to develop specialized knowledge and skills in some areas of Computer Science. Students can achieve as many of these as they wish, but are not obligated to obtain any specialization. A Specialization(s) completed with the degree will be noted on the transcript. Each specialization comprises three courses at the 300- and 400-level as listed here and associated prerequisites or related courses:

# Specialization in **Algorithmics**

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 280.3
- CMPT 360.3
- CMPT 364.3
- CMPT 463.3

#### Specialization in Artificial Intelligence

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 280.3
- CMPT 317.3
- CMPT 423.3
- CMPT 489.3
- STAT 242.3\*

# Specialization in **Programming Languages**

- CMPT 145.3
- CMPT 214.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 340.3

# Choose 6 credit units from the following:

- CMPT435.3
- CMPT440.3
- CMPT442.3

## Specialization in Web Development

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 353.3
- CMPT 381.3
- CMPT 436.3

## Specialization in Computer Systems

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3
- CMPT 332.3
- CMPT 432.3

# Choose 3 credit units from the following:

- CMPT 433.3
- CMPT 434.3

# Specialization in Cybersecurity

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3
- CMPT 332.3
- CMPT 438.3
- CMPT 439.3

# Specialization in Computer Graphics

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 485.3
- CMPT 487.3
- MATH 266.3

## **Specialization in Computer Game Development**

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 306.3
- CMPT 381.3
- CMPT 406.3
- CMPT 481.3

## Specialization in Information Visualization

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 394.3
- CMPT 484.3

## Specialization in Computational Modelling

- BINF 451.3 (requires one of BIOL 120 or BMSC 200 as a prerequisite)
- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 451.3

# Specialization in Social Computing

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 317.3 or CMPT 353.3
- CMPT 412.3
- PHIL 232.3

MATH 110/133/176, MATH 163 and MATH164 are required for all Computer Science majors, and must be taken prior to some of the courses in these specializations. Also, the statistics note (\*) above applies.

# Bachelor of Science Four-year (B.Sc. Four-year) - Computer Science

Changes in purple were submitted to the February 2023 College Challenge and approved in the March 2023 University Course Challenge.

#### C3 Cognate Requirement (12-15 15-18 credit units)

Junior course requirements:

Choose **9 credit units** from the following areas, such that no more than 6 credit units are from any one area:

# **Biology**

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life

## Chemistry

- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes
- CHEM 250.3 Introduction to Organic Chemistry

#### **Earth Science**

- GEOG 120.3 Introduction to Global Environmental Systems
- **GEOL 121.3** Earth Processes
- GEOL 122.3 Earth History

#### **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- ASTR 213.3 Astronomical Photometry
- PHYS 115.3 Physics and the Universe
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

## **Senior Additional course requirements:**

PHIL 232.3 Ethics and Professional Responsibility in Computer Science or <u>GE 449.3</u> Engineering in Society

## Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### **Business Science**

If a course in Economics was chosen in C2 above, then choose 3 additional credit units of Electives in C5. If a course in Economics was **not** chosen in C2 above, then 3 credit units are required from:

#### Choose 0 - 3 credit units from the following:

- AREC 230.3 Innovation and Entrepreneurship
- COMM 101.3 Introduction to Business
- COMM 102.3 Introduction to Business Management
- COMM 105.3 Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 203.3 Introduction to Finance
- COMM 204.3 Introduction to Marketing
- COMM 205.3 Introduction to Operations Management
- COMM 210.3 Introduction to Management Accounting
- COMM 304.3 Introduction to Business Law
- ECON 111.3 Introductory Microeconomics
- ECON 114.3 Introductory Macroeconomics

## C4 Major Requirement (60 57 credit units)

- CMPT 116.3 or CMPT 141.3 Introduction to Computer Science
- CMPT 117.3 or CMPT 145.3 Principles of Computer Science
- CMPT 214.3 Programming Principles and Practice
- <u>CMPT 215.3</u> Introduction to Computer Organization and Architecture or <u>CME</u> 331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- <u>CMPT 270.3</u> Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms

#### Choose 18 credit units from the following:

- CMPT 317.3 Introduction to Artificial Intelligence
- CMPT 332.3 Operating Systems Concepts
- CMPT 340.3 Programming Language Paradigms
- CMPT 353.3 Full Stack Web Programming
- CMPT 360.3 Machines and Algorithms
- CMPT 370.3 Intermediate Software Engineering
- CMPT 381.3 Implementation of Graphical User Interfaces

Choose 6 credit units of CMPT courses with number 410 or higher:

Note: Courses numbered 400 - 409 may not be used to fulfill this requirement

• CMPT — 400-Level

## Choose 3 credit units from the following:

- <u>CMPT 300-Level</u>, 400-Level
- at most 2 courses from <u>CME 332.3</u> Real Time Computing, <u>CME 341.3</u> Logic Design Using FPGAs, <u>CME 342.3</u> Introduction to Digital Integrated Circuits and System on Chip, <u>CME 433.3</u> Digital Systems Architecture, <u>CME 435.3</u> Verification of Digital Systems

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

#### Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology\* (recommended)
- STAT 245.3 Introduction to Statistical Methods\*
- EE 216.3 Probability Statistics and Numerical Methods

### Choose 6 credit units from the following:

- MATH 116.3 Calculus II or MATH 134.3 Engineering Mathematics II or MATH 177.3 Advanced Calculus II
- MATH 211.3 Numerical Analysis I
- MATH 223.3 Calculus III for Engineers
- MATH 225.3 Intermediate Calculus I
- MATH 266.3 Linear Algebra II
- MATH 276.3 Vector Calculus I
- MATH 327.3 Graph Theory
- MATH 328.3 Combinatorics and Enumeration
- MATH 361.3 Group Theory and MATH 362.3 Rings and Fields
- MATH 364.3 Number Theory
- STAT 241.3 Probability Theory
- **STAT 344.3** Applied Regression Analysis
- STAT 345.3 Design and Analysis of Experiments
- STAT 348.3 Sampling Techniques
- PHIL 243.3 Introduction to Symbolic Logic II

Students may choose to focus their choices in C4 Major and C5 Electives requirements to develop specialized knowledge and skills in some areas of Computer Science. Students can achieve as many of these as they wish, but are not obligated to obtain any specialization. A Specialization(s) completed with the degree will be noted on the student transcript. Each specialization comprises three courses at the 300- and 400-level as listed here and associated prerequisites or related courses:

# Specialization in Algorithmics

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3

<sup>\*</sup>Though not recommended, other courses from list A or C in the **Statistics Course Regulations**, in which the student received a grade of 70% or higher, may be used in lieu of STAT 242 or STAT 245. Students should be aware that substituted courses will not be accepted as prerequisites for CMPT 394, CMPT 423, or CMPT 489.

- CMPT 280.3
- CMPT 360.3
- CMPT 364.3
- CMPT 463.3

# Specialization in Artificial Intelligence

- CMPT 145.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 280.3
- STAT 242.3\*
- CMPT 317.3
- CMPT 423.3
- CMPT 489.3

## Specialization in **Programming Languages**

- CMPT 145.3
- CMPT 214.3
- CMPT 260.3 or CMPT 263.3
- CMPT 270.3
- CMPT 340.3

# Choose 6 credit units from the following:

- CMPT435.3
- CMPT440.3
- CMPT442.3

# Specialization in Web Development

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 353.3
- CMPT 381.3
- CMPT 436.3

# Specialization in **Software Development**

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 370.3
- CMPT 371.3
- CMPT 470.3

# Specialization in Computer Systems

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3

- CMPT 332.3
- CMPT 432.3

# Choose 3 credit units from the following:

- CMPT 433.3
- CMPT 434.3

# Specialization in Cybersecurity

- CMPT 145.3
- CMPT 214.3
- CMPT 270.3
- CMPT 280.3
- CMPT 332.3
- CMPT 438.3
- CMPT 439.3

# Specialization in Computer Graphics

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 485.3
- CMPT 487.3
- MATH 266.3

# Specialization in Computer Game Development

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 306.3
- CMPT 381.3
- CMPT 406.3
- CMPT 481.3

# Specialization in Information Visualization

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 394.3
- CMPT 484.3

## Specialization in Computational Modelling

- BINF 451.3 (requires one of BIOL 120 or BMSC 200 as a prerequisite)
- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 384.3
- CMPT 451.3

#### Specialization in Social Computing

- CMPT 145.3
- CMPT 270.3
- CMPT 280.3
- CMPT 317.3 or CMPT 353.3
- CMPT 412.3
- PHIL 232.3

MATH 110/133/176, MATH 163 and MATH164 are required for all Computer Science majors, and must be taken prior to some of the courses in these specializations. Also, the statistics note (\*) above applies.

## Bachelor of Science Three-year (B.Sc. Three-year) - Computer Science

C3 Cognate Requirement (9 12 credit units)

Junior course requirements:

Choose **9 credit units** from the following areas, such that no more than 6 credit units are from any one area:

# **Biology**

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life

# Chemistry

- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes
- CHEM 250.3 Introduction to Organic Chemistry

#### **Earth Science**

- **GEOG 120.3** Introduction to Global Environmental Systems
- GEOL 121.3 Earth Processes
- GEOL 122.3 Earth History

# **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- ASTR 213.3 Astronomical Photometry
- PHYS 115.3 Physics and the Universe
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

# **Additional course requirements:**

Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

## C4 Major Requirement (36 33 credit units)

- CMPT 116.3 or CMPT 141.3 Introduction to Computer Science
- CMPT 117.3 or CMPT 145.3 Principles of Computer Science

- CMPT 214.3 Programming Principles and Practice
- <u>CMPT 215.3</u> Introduction to Computer Organization and Architecture or <u>CME 331.3</u> Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms

# Choose 9 credit units from the following:

- CMPT 300-Level, 400-Level
- at most 1 course from <u>CME 332.3</u> Real Time Computing, <u>CME 334.3</u> Network Architecture and Protocols, <u>CME 341.3</u> Logic Design Using FPGAs, <u>CME 342.3</u> Introduction to Digital Integrated Circuits and System on Chip, <u>CME 433.3</u> Digital Systems Architecture, <u>CME 435.3</u> Verification of Digital Systems

#### Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

## Choose 3 credit units from the following:

- STAT 242.3 Statistical Theory and Methodology\* (recommended)
- STAT 245.3 Introduction to Statistical Methods\*
- <u>EE 216.3</u> Probability Statistics and Numerical Methods

\*Though not recommended, other courses from list A or C in the <u>Statistics Course Regulations</u>, in which the student received a grade of 70% or higher, may be used in lieu of STAT 242 or STAT 245. Students should be aware that substituted courses will not be accepted as prerequisites for CMPT 394, CMPT 423, or CMPT 489.

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# Bachelor of Science Double Honours - Computer Science - Major 1

C3 Cognate Requirement (9 12 credit units)

Junior course requirements:

Choose **9 credit units** from the following areas, such that no more than 6 credit units are from any one area:

## **Biology**

- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life

#### Chemistry

- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes
- CHEM 250.3 Introduction to Organic Chemistry

#### **Earth Science**

- GEOG 120.3 Introduction to Global Environmental Systems
- GEOL 121.3 Earth Processes

GEOL 122.3 Earth History

## **Physics & Astronomy**

- ASTR 113.3 Introduction to Stellar Astronomy
- ASTR 213.3 Astronomical Photometry
- PHYS 115.3 Physics and the Universe
- PHYS 117.3 Physics for the Life Sciences or PHYS 125.3 Physics and Technology

#### Additional course requirements:

## Choose 3 credit units from the following:

- MATH 110.3 Calculus I
- MATH 133.4 Engineering Mathematics I
- MATH 176.3 Advanced Calculus I

## C4 Major Requirement (42 credit units)

- CMPT 116.3 or CMPT 141.3 Introduction to Computer Science
- CMPT 117.3 or CMPT 145.3 Principles of Computer Science
- <u>CMPT 214.3</u> Programming Principles and Practice
- CMPT 215.3 Introduction to Computer Organization and Architecture or CME
   331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 360.3 Machines and Algorithms
- CMPT 364.3 Automata and Formal Languages
- CMPT 400.3 Research Topics in Computer Science

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#### Bachelor of Science Double Honours - Computer Science and Mathematics - Major 1 & 2

# C4 Major Requirement (84 credit units)

- CMPT 214.3 Programming Principles and Practice
- CMPT 215.3 Introduction to Computer Organization and Architecture or CME
   331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 360.3 Machines and Algorithms
- CMPT 364.3 Automata and Formal Languages
- CMPT 400.3 Research Topics in Computer Science
- MATH 163.3 Introduction to Mathematical Reasoning
- MATH 164.3 Introduction to Linear Algebra
- MATH 238.3 Introduction to Differential Equations
- MATH 266.3 Linear Algebra II
- MATH 276.3 Vector Calculus I
- MATH 277.3 Vector Calculus II
- MATH 361.3 Group Theory
- MATH 362.3 Rings and Fields
- MATH 371.3 Real Analysis I

- MATH 379.3 Complex Analysis
- STAT 241.3 Probability Theory

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#### **Double Honours - Computer Science - Major 2**

#### Requirements (42 credit units)

- CMPT 214.3 Programming Principles and Practice
- CMPT 215.3 Introduction to Computer Organization and Architecture or CME
   331.3 Microprocessor Based Embedded Systems
- CMPT 260.3 Mathematical Logic and Computing or CMPT 263.3 Computational Logic and Program Reasoning
- CMPT 270.3 Developing Object-Oriented Systems
- CMPT 280.3 Intermediate Data Structures and Algorithms
- CMPT 360.3 Machines and Algorithms
- CMPT 364.3 Automata and Formal Languages
- <u>CMPT 400.3</u> Research Topics in Computer Science

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#### Rationale:

- 1. CMPT 263.3 has been designed to follow MATH 164, which was recently introduced. This will replace CMPT 260 which has an approximate 70% overlap content with MATH 164, and allow students to advance further in this area.
- 2. Adding MATH 266 to the B.Sc. Honours Software Engineering was missed in revisions made earlier this year this course is relevant for that program as well.
- 3. The move of the MATH 110/133/176 requirement aligns introductory mathematics requirements across the Computer Science programs (and the same change has been proposed for Applied Computing). It provides easier comparability/transfer among programs and allows all Computer Science to use the same courses toward a Minor in Mathematics (courses in the C4 Major Requirement may not be double counted for a minor). The Computer Science double-honours (major 1) already has this. This change is not being proposed for the specified Double Honours in Computer Science and Mathematics (and vice-versa), as the MATH courses are part of the second (first) major.
- 4. The Edwards School of Business has noted that COMM 102.3 (Introduction to Business Management) will be proposed for deletion, and is replaced by COMM 101.3 (Introduction to Business). Since the two courses are equivalent the swap is appropriate.
- 5. The intent of adding Specializations is to guide students in course selection towards courses in their area(s) of interest and towards potential employment skills and to highlight students' focused knowledge and skills in specific areas of computer science. But no student will need even a single Specialization in order to complete the degree these are entirely optional and informative.

## New course(s):

# **CMPT 263.3 Computational Logic and Program Reasoning**

1/2 (3L-1.5T) Apply mathematical logic to applications in computer science, leading to program interpretation and understanding; including pre-/post-conditions, invariants, Hoare logic, relational algebra, and verification. Develop skills and knowledge for designing, debugging, documenting, verifying and testing code, and understand programs including open-source code. Topics are introduced using standard examples including stacks and queues; extended examples are drawn from string-matching algorithms and finite state automata. An introduction to reasoning about concurrency, pitfalls, and language/library-level solutions.

Prerequisite(s): MATH 163.3 or CMPT 260.3; and CMPT 145.3.

Note: Students with credit for CMPT 260 can take CMPT 263 for credit, but students cannot take CMPT 260 for credit after completing CMPT 263.

Instructor(s): Chris Dutchyn, Mark Eramian, Lucas Lehnert, Debajyoti Mondal

Rationale: CMPT 263.3 has been designed to follow MATH 164, which was recently introduced. This will replace CMPT 260 which has an approximate 70% overlap content with MATH 164, and allow students to advance further in this area.

#### Minor course revisions:

#### **CMPT 317.3 Introduction to Artificial Intelligence**

Prerequisite change:

Current prerequisite(s): CMPT 260; and CMPT 280; and STAT 245 or equivalent (including EE 216 or ME 251).

New prerequisite(s): MATH 163.3 or CMPT 260.3; and CMPT 280.3; and STAT 242.3, STAT 245.3 or equivalent (including EE 216 or ME 251).

Rationale: MATH 163 and CMPT 260 have substantial overlap in content. STAT 242.3 is also an acceptable course in statistics to prepare students for this course.

#### **CMPT 434.3 Computer Networks**

Make CMPT 434 mutually exclusive with CME 334 and CME 451.

Change to Note: Students with credit for CMPT 424 may not take this course for credit.

Current Note: Students with credit for CMPT 424 may not take this course for credit.

New Note: Students with credit for CMPT 424 or CME334 or CME451 may not take this course for credit. Rationale: CMPT 434 and CME 334/451 have substantial overlap in content and learning outcomes. (Students are already limited to one of CME 334 or CME 451.) The effect of this change will be that CMPT 434 will not be able to serve as a fourth-year elective for students in Computer Engineering, but there are sufficient other options. Professor Robert Johanson, Head, Department of Electrical and Computer Engineering was consulted and he had no objection to this change.

#### **CMPT 436.3 Cloud and Mobile Computing**

New course number: CMPT 453.3

Prerequisite change:

Current prerequisite(s): One of CMPT 332, 353 or 370.

New prerequisite(s): One of CMPT 353.3, CMPT 370.3, or CMPT 381.3.

Change to Note: Students with credit for CMPT 426 may not take this course for credit.

Current Note: Students with credit for CMPT 426 or CMPT 436 may not take this course for credit. Rationale: With changes in technology, the cloud and mobile computing topics covered in this course no longer require detailed systems knowledge. Instead, user-interface skills and having a background in user interface design and development has become more important. As a result, CMPT332 and its introduction to the principles of modern operating systems is no longer necessary for students taking CMPT436. The new pre-requisite course, CMPT381, provides background in graphical user interfaces.

The department would like the number to change to reflect these differences, placing the course in the 45X (software) sequence rather than the 43X (systems) sequence. This change will assist students in recognizing CMPT453 as the natural sequel to CMPT353, and notifying them that systems content is no longer related to the course.

#### **Drama**

# New course(s):

#### **DRAM 172.0 Greystone Theatre Performance**

1/2 Greystone Theatre produces several theatre productions each year, reflecting a range of genres and styles. This course is available to students who have successfully completed an audition and been cast in one of Greystone Theatre's mainstage productions. Mainstage productions generally take place twice per term (October, November/December, February, March/April), and rehearse in the evenings for 6 weeks leading up to the production. Students will immerse themselves in the creation of an original theatrical production under the guidance of a director and in collaboration with designers, stage managers, and fellow actors. Through physical, vocal and imaginative exercises, text and character analysis, and improvisation, students will investigate their personal creative process, cultivate an appreciation for the

craft of acting, and cultivate collaboration skills while engaging with dramatic works drawn from a range of periods, genres and styles.

Prerequisite(s): Successful completion of an audition and permission of the department is required to enroll in this course.

Prerequisite or co-requisite: DRAM 118.3

Note: Rehearsals generally take place for four hours every evening Monday-Friday with one weekend rehearsal each week (either Saturday or Sunday afternoons). Greystone Theatre rehearsals take place over Thanksgiving weekend, Fall break, and reading week. Outside rehearsal and performance dates are made available at the time of audition, with rehearsal hours being announced when students are offered a role. This course may be taken up to three times for 0 credit units.

Instructor(s): Shannon Blanchet, Natasha Martina, Ken MacKenzie, Deneh'Cho Thompson Rationale: Students who perform in Greystone Theatre productions do not currently see their efforts reflected on their transcripts. Adding this course will ensure the time and energy that they devote to a production is reflected on their official academic record.

## **DRAM 270.0 Greystone Theatre Stage Management**

1/2 This course is designed to provide students with further experiential learning opportunities with Greystone Theatre in the role of the Stage Manager. Instruction in the course will involve the basic role and responsibilities of the stage manager as they engage in the process of preparing, rehearsing and opening a theatrical production. Student will learn practical skills that can be applied in professional stage management situations.

Prerequisite(s): DRAM 110.3 and 18 credit units DRAM courses.

Prerequisite or co-requisite: DRAM 213.3 Note: This course can be taken twice for credit. Instructor(s): Carla Orosz and Kenneth MacKenzie

Rationale: Students who have been Stage Managers for Greystone Theatre productions do not currently see their efforts reflected on their transcripts. Adding this course will ensure the time and energy that they devote to a production is reflected on their official academic record.

# **Environment and Society**

#### New course(s):

## **GEOG 421.3 Local Water Security**

1 This course explores local water security and the "ripple" effects on societies. Students will reflect individually on how water insecurity may threaten or reinforce positive peace, particularly at the local level. The course will consist of an introduction to variations in water resources and uses over space and time, followed by an exploration of local water security, an understanding of the different ways in which we use and value water, consequences of water insecurity, the role of intersectionality in water (in)security, and examples of how to reduce local water insecurity. The course will be interactive, consisting of presentations by the lecturer and students, readings, discussions, assignments, group work, and field trips.

Prerequisite(s): GEOG 120.3, GEOG 125.3 or GEOG 130.3; and 6 cu senior Arts and Science courses; and permission of the instructor. Students must have completed a minimum of 30 credit units and have a cumulative weighted average of at least 65% to participate in this course.

Note: This course is held in Costa Rica and is part of the international experiential learning opportunities in the College of Arts and Science. Students with credit for GEOG 498.3 Local Water Security may not take this course for credit.

Instructor(s): Corinne Schuster-Wallace

Rationale: This is an international experiential course which has been delivered as a special topics course for two years. A total of 12 students have taken the course during this time. The permanent course will be cross listed and delivered at the United Nations University for Peace in Costa Rica, with which there is an MOU. It is a compressed three week course delivered in November. Longer term funding (5 years) to cover full costs of participation for students has been secured through the Experiential Learning Office in the College of Arts and Science. The course supports the internationalisation pillar of the university and college plans.

## **Ethics Justice and Law**

# Minor program revision Certificate in Ethics, Justice and Law

Add PHIL 462.3 (proposed below) to the restricted electives.

## **Ethics, Justice and Law - Certificate**

Requirements (15 credit units)

• PHIL 233.3 Ethical Theory

## Choose 3 credit units from the following:

- PHIL 133.3 Introduction to Ethics and Values
- PHIL 231.3 Moral Problems
- PHIL 234.3 Biomedical Ethics
- PHIL 235.3
- PHIL 236.3 Ethics and Technology
- PHIL 238.3 Ethical Issues in Scientific Research

#### Choose 3 credit units from the following:

- PHIL 237.3 Law and Morality
- PHIL 262.3 Social and Political Philosophy

#### Choose 3 credit units from the following:

- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 337.3 Philosophy of Law
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

# Choose 3 credit units from the following:

- PHIL 133.3 Introduction to Ethics and Values
- PHIL 231.3 Moral Problems
- PHIL 234.3 Biomedical Ethics
- PHIL 235.3
- PHIL 236.3 Ethics and Technology
- PHIL 237.3 Law and Morality
- PHIL 238.3 Ethical Issues in Scientific Research
- PHIL 262.3 Social and Political Philosophy
- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 337.3 Philosophy of Law
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

Rationale: PHIL 462.3 will be a relevant course for this certificate program and its addition will support the growing popularity of this certificate and the teaching needs that follow.

## **French**

#### New course(s):

#### FREN 104.3 Beginning Conversational French

SP/SU A continuation of the basic grammatical concepts of French addressed in FREN 103. The communicative approach will be used with greater emphasis on oral expression, interaction, and listening comprehension in French.

Prerequisite(s): FREN 103.3

Note: Students who have completed more advanced university-level course in French cannot take this course for credit. FREN 104 does not count towards a major in French. Student may only receive credit for FREN 104 in combination with FREN 103 or FREN 106 as offered through the USASK Explore Program. Non-French/Modern Languages majors can use FREN 104 as a Humanities or Language course in the Breadth Requirement of Arts and Science programs. Students may only receive credit for two of FREN 104, 123, or 214.

Instructor(s): Gisèle Piché; Explore instructors

Rationale: For a very long time students have been able to receive "transfer" FREN credit for taking an Explore program in French at one of a number of locations in the country. The problem with this method of giving credit is that it is difficult to give "transfer" credit from the program offered at USask, as we seem to be transferring credit to ourselves. The creation of special courses for Explore will ensure that students receive the appropriate credit with a minimum of additional labour, that credit will appear on the transcript, and the credit will be properly and automatically applied to program requirements in Degree Works.

#### FREN 123.3 Intermediate Conversational French

SP/SU For students who have an adequate mastery of the basic grammatical concepts of French. The communicative approach will be used with greater emphasis on oral expression, interaction, and listening comprehension in French.

Prerequisite(s): French 30 or FREN 106.3.

Note: Students with French 30 or FREN 106 (only) will also register in FREN 122. Students with credit for FREN 122 will take FREN 125 with FREN 123. Students who graduated high school from an immersion, designated or École fransaskoise program more than 5 years ago may take FREN 122 and FREN 125. Students who graduated high school in the last 5 years from an immersion, designated or École fransaskoise program may not take FREN 122 and FREN 125. Students may only receive credit for FREN 123 in combination with FREN 122 or FREN 125 as offered through the Explore Program. Students may only receive credit for two of FREN 104, 123, or 214.

Instructor(s): Gisèle Piché: Explore instructors

Rationale: See FREN 104 above.

#### FREN 214.3 Advanced Conversational French

SP/SU A French language course that builds on skills acquired in FREN 122, FREN 125 or equivalent. The communicative approach will be used with greater oral expression, interaction and listening comprehension in French.

Prerequisite(s): FREN 122.3, FREN 125.3, École fransaskoise Grade 12, or French designated (or immersion) Grade 12.

Note: Students may only receive credit for FREN 214 in combination with FREN 212 or FREN 218 as offered through the Explore Program. Students may only receive credit for two of FREN 104, 123, or 214. Instructor(s): Gisèle Piché; Explore instructors

Rationale: See FREN 104 above.

## **Health Studies**

# Minor program revisions

# Bachelor of Arts and Science Honours and Four-year in Health Studies

- 1. Developmental Psychology (A2i): Remove PSY 316 and PSY 318 as course options, and move PSY 418 to the last requirement. Condense the first two requirements and require students to select 9 credit units from that list.
- 2. Brain and Behaviour (A2ii): Reduce 300/400-level requirement to 3 credit units and remove PSY 343, 344, and 348 as course options. Condense the last two requirements and require students to select 9 credit units from that list.
- 3. Individual Bases for Behaviour (B2i): Reduce 300/400-level requirement to 3 credit units and remove PSY 318 and 348 as course options. Combine the courses in the first two requirements to create a new requirement from which students must choose 3 credit units.
- 4. The Sociology of Health (B2ii): Add SOC 203, 206, 307, 360 and 408 as options in the first requirement (reformatted for clarity).
- 5. Historical and Philosophical Perspectives on Health (B2iii): Add HIST 233, 237, 273, 315 and 416, and remove HIST 253 and 481. Reformat for clarity.
- 6. Cultural Psychology (C2i): Replace PSY 380 and ANTH 480 with PSY 323, 324, 325, 411, and 425.
- 7. History and Philosophy of Health in a Cultural Context (C2ii): Add HIST 233, 237, 273, 315 and 416, and remove HIST 253 and 481.
- 8. Changing Indigenous Environments (D2i): Add GEOG 421 as a course option.
- 9. Assessing and Planning (D2iii): Add GEOG 421 as a course option.
- 10. Health Studies Arts Courses lists (A6, B6, C6, D6): Add GEOG 421; HIST 233, 237, 273, 315 and 416; PSY 253, 353, 324, 325, 422 and 425; and SOC 203, 204, 206, 211, 307, 360, 408 and 412, and remove ANTH 480, HIST 253, HIST 481 and PSY 380.
- 11. Add ANTH 405 to the D6 list only (it is already included in A-C6).

# Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Biology, Development and Health

J4 Major Requirement (63 credit units)

# Option A: Biology, Development and Health (48 credit units)

A2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

#### i. Developmental Psychology:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 256.3</u> Psychology of Language, or <u>PSY 260.3</u> Health Psychology
- One of <u>PSY 213.3</u> Child Development, <u>PSY 214.3</u> Adolescent Development, <u>PSY 216.3</u> Psychology of Aging
- One of <u>PSY 316.3</u> Advanced Development II Social and Emotional Research, <u>PSY</u>
   318.3 Cognitive Development II Research, or <u>PSY 418.3</u> Advanced Seminar in Developmental Psychology
- One of <u>PSY 315.3</u> Advanced Development I Social and Emotional, <u>er <u>PSY 317.3</u> Cognitive Development I, or <u>PSY 418.3</u> Advanced Seminar in Developmental Psychology
  </u>

# Choose **9 credit units** from the following:

- PSY 207.3 Psychology of Death and Dying
- **PSY 213.3** Child Development
- PSY 214.3 Adolescent Development
- PSY 216.3 Psychology of Aging

- PSY 223.3 Abnormal Psychology
- PSY 256.3 Psychology of Language
- PSY 260.3 Health Psychology

#### ii. Brain and Behaviour:

- Any two of PSY 343.3, PSY 344.3, PSY 347.3 Advanced Human Neuropsychology, PSY 348.3 Research in Human Neuropsychology, or PSY 448.3 Advanced Seminar in Neuroscience
- One of <u>PSY 223.3</u> Abnormal Psychology, or <u>PSY 260.3</u> Health Psychology
- PSY 242.3 Physiological Psychology or PSY 246.3 Introduction to Human Neuropsychology

#### Choose 9 credit units from the following:

- PSY 223.3 Abnormal Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 260.3 Health Psychology

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# A6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ..
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- **GEOG 386.3** Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac

- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# <u>Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Individual, Society</u> and Health

J4 Major Requirement (63-66 credit units)

Option B: Individual, Society, and Health (48 - 51 credit units)

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B2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

#### i. Individual Bases for Behaviour:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 230.3</u> Criminal Behaviour, <u>PSY 257.3</u> Clinical and Counselling Psychology or <u>PSY 260.3</u> Health Psychology
- PSY 242.3 Physiological Psychology or PSY 246.3 Introduction to Human Neuropsychology
- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 230.3</u> Criminal Behaviour, <u>PSY 242.3</u> Physiological Psychology, <u>PSY 246.3</u> Introduction to Human Neuropsychology, <u>PSY 257.3</u> Clinical and Counselling Psychology or <u>PSY 260.3</u> Health Psychology
- One of <u>PSY 317.3</u> Cognitive Development I (PSY 317 requires one of PSY 213, PSY 214 or PSY 216; and PSY 253 as prerequisites, each of which may be used to fulfill B6 below), <u>PSY 347.3</u> Advanced Human Neuropsychology, or <u>PSY 448.3</u> Advanced Seminar in Neuroscience
- Any two of PSY 317.3 Cognitive Development I (PSY 317 requires PSY 213.3 Child Development, PSY 214.3 Adolescent Development or PSY 216.3 Psychology of Aging as a prerequisite, each of which may be used to fulfill B6 below), PSY 318.3 Cognitive Development II Research, PSY 347.3 Advanced Human Neuropsychology, PSY 348.3 Research in Human Neuropsychology or PSY 448.3 Advanced Seminar in Neuroscience

# ii. The Sociology of Health:

- Any two of <u>SOC 202.3</u> Environmental Sociology, <u>SOC 219.3</u> Indigenous Peoples and Justice in Canada, <u>SOC 242.3</u> Introduction to Sociology of Womens Studies, <u>SOC 319.3</u> Indigenous People in Urban Areas, <u>SOC 328.3</u> Social Inequality and Health, <u>SOC 341.3</u> Institutional Racism and Indigenous People, SOC 344.3, <u>SOC 347.3</u> Studies in Addictions, <u>SOC 402.3</u> Sociology of Agriculture and Food, <u>SOC 409.3</u> Sociology of Development, <u>SOC 420.3</u> Medical Sociology, <u>SOC 421.3</u>, or SOC 428.3
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care

## Choose 6 credit units from the following:

- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- **SOC 206.3** Sociology of Communities and Community Development
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3

- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.

# iii. Historical and Philosophical Perspectives on Health:

Requires 3 cu of 200-level HIST courses to fulfill prerequisites. This course may be used to fulfill the Electives Requirement.

Any four of HIST 253.3, <u>HIST 303.3</u> Sex Gender and Sexuality in Africa, HIST 334.3, <u>HIST 353.3</u> Pests Plagues Pox and Politics A History of Health Care in Canada, <u>HIST 365.3</u> Recipes for a Nation Food History in Canada, HIST 387.3, HIST 481.3, <u>HIST 484.3</u> History of Madness From Enlightenment to Prozac, <u>HIST 488.3</u> Topics in History of Development, <u>PHIL 224.3</u> Philosophy of Sexuality

# Choose 12 credit units from the following:

- HIST 253.3
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- PHIL 224.3 Philosophy of Sexuality

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# **B6.** Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution

- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ..
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- **GEOG 420.3** Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada

- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- <u>SOC 210.3</u> Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- **SOC 412.3** Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# <u>Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Culture, Environment and Health</u>

J4 Major Requirement (63 credit units)

Option C: Culture, Environment and Health (48 credit units)

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# C2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

## i. Cultural Psychology:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 227.3</u> Human Sexuality, <u>PSY 260.3</u> Health Psychology, <u>PSY 261.3</u> Community Psychology
- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 227.3</u> Human Sexuality, <u>PSY 260.3</u> Health Psychology, <u>PSY 261.3</u> Community Psychology, <u>PSY 323.3</u> Qualitative Study of Lives and Social Practices, <u>PSY 324.3</u> Research in Qualitative Study of Lives and Social Practices, <u>PSY 325.3</u> Investigating Social Psychological Phenomena I, <u>PSY 411.3</u> Environmental Psychology Humans and Nature, <u>PSY 425.3</u> Advanced Seminar in Group Dynamics and Intergroup Relations <u>PSY 380.3 or ANTH 480.3</u>
- One of <u>PSY 323.3</u> Qualitative Study of Lives and Social Practices, <u>PSY 324.3</u> Research in Qualitative Study of Lives and Social Practices, <u>PSY 325.3</u> Investigating Social Psychological Phenomena I, <u>PSY 411.3</u> Environmental Psychology Humans and Nature, <u>PSY 425.3</u> Advanced Seminar in Group Dynamics and Intergroup Relations <u>PSY 380.3 and ANTH 480.3</u>
- PSY 224.3 Introduction to Culture and Psychology

Requires 3 cu of 200-level HIST courses. This course may be used to fulfill the Electives Requirement.

# ii. History and Philosophy of Health in a Cultural Context:

## Choose 12 credit units from the following:

- HIST 253.3
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- PHIL 294.3 Philosophy of Human Nature

# iii. Anthropology and Archaeology of Health:

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# C6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ...
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- **GEOG 386.3** Environmental Impact Assessment
- **GEOG 420.3** Cartography and Professional Communication
- **GEOG 421.3** Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs

## HIST 481.3

- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- <u>PSY 347.3</u> Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- <u>SOC 204.3</u> Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- <u>SOC 341.3</u> Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology

- SOC 421.3
- SOC 428.3

# Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Changing Climates and Health

J4 Major Requirement (63 credit units)

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Option D: Changing Climates and Health (48 credit units)

D2. Choose one of the following Arts clusters (12 credit units):

Additional requirement across all clusters:

• **GEOG 364.3** Geography of Environment and Health

Choose 9 credit units from one of the following clusters:

At least 3 credit units must be at the 300-level or higher.

## i. Changing Indigenous Environments

- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing or INDG 241.3 Weaving Indigenous Science and Western Science
- INDG 221.3 Indigenous Food Sovereignty

#### ii. Disasters

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# iii. Assessing and Planning

- GEOG 240.3 Sustainable Cities and Regions
- GEOG 322.3 Geographic Information Systems
- GEOG 323.3 Remote Sensing
- GEOG 348.3 Introduction to Demography
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- **GEOG 386.3** Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing
- PLAN 445.3 Planning with Indigenous Communities

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# D6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill D4, D5 OR D6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ..
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices

- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies- Biology, Development and Health

J4 Major Requirement (57 credit units)

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Option A: Biology, Development and Health (48 credit units)

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# A2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

## i. Developmental Psychology:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 256.3</u> Psychology of Language, or <u>PSY 260.3</u> Health Psychology
- One of <u>PSY 213.3</u> Child Development, <u>PSY 214.3</u> Adolescent Development, <u>PSY 216.3</u> Psychology of Aging
- One of <u>PSY 316.3</u> Advanced Development II Social and Emotional Research, <u>PSY</u>
   <u>318.3</u> Cognitive Development II Research, or <u>PSY 418.3</u> Advanced Seminar in Developmental Psychology
- One of <u>PSY 315.3</u> Advanced Development I Social and Emotional, <u>or <u>PSY 317.3</u> Cognitive Development I, or <u>PSY 418.3</u> Advanced Seminar in Developmental Psychology
  </u>

# Choose 9 credit units from the following:

- PSY 207.3 Psychology of Death and Dying
- PSY 213.3 Child Development
- PSY 214.3 Adolescent Development
- PSY 216.3 Psychology of Aging
- PSY 223.3 Abnormal Psychology
- PSY 256.3 Psychology of Language
- PSY 260.3 Health Psychology

#### ii. Brain and Behaviour:

- Any two of PSY 343.3, PSY 344.3, PSY 347.3 Advanced Human Neuropsychology, PSY 348.3 Research in Human Neuropsychology, or PSY 448.3 Advanced Seminar in Neuroscience
- One of PSY 223.3 Abnormal Psychology, or PSY 260.3 Health Psychology
- PSY 242.3 Physiological Psychology or PSY 246.3 Introduction to Human Neuropsychology

# Choose 9 credit units from the following:

- PSY 223.3 Abnormal Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 260.3 Health Psychology

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## A6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- •
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- **GEOG 386.3** Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- **HIST 233.3** War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3

- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- .
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- <u>SOC 206.3</u> Sociology of Communities and Community Development
- <u>SOC 210.3</u> Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice

- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# <u>Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies- Individual, Society and Health</u>

J4 Major Requirement (57-60 credit units)

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Option B: Individual, Society, and Health (48 - 51 credit units)

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# B2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

#### i. Individual Bases for Behaviour:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 230.3</u> Criminal Behaviour, <u>PSY 257.3</u> Clinical and Counselling Psychology or <u>PSY 260.3</u> Health Psychology
- PSY 242.3 Physiological Psychology or PSY 246.3 Introduction to Human Neuropsychology
- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 223.3</u> Abnormal Psychology, <u>PSY 230.3</u> Criminal Behaviour, <u>PSY 242.3</u> Physiological Psychology, <u>PSY 246.3</u> Introduction to Human Neuropsychology, <u>PSY 257.3</u> Clinical and Counselling Psychology or <u>PSY 260.3</u> Health Psychology
- One of <u>PSY 317.3</u> Cognitive Development I (PSY 317 requires one of PSY 213, PSY 214 or PSY 216; and PSY 253 as prerequisites, each of which may be used to fulfill B6 below), <u>PSY 347.3</u> Advanced Human Neuropsychology, or <u>PSY 448.3</u> Advanced Seminar in Neuroscience
- Any two of <u>PSY 317.3</u> Cognitive Development I (<u>PSY 317</u> requires <u>PSY 213.3</u> Child Development, <u>PSY 214.3</u> Adolescent Development or <u>PSY 216.3</u> Psychology of Aging as a prerequisite, each of which may be used to fulfill B6 below), <u>PSY 318.3</u> Cognitive Development II Research, <u>PSY 347.3</u> Advanced Human Neuropsychology, <u>PSY 348.3</u> Research in Human Neuropsychology or <u>PSY 448.3</u> Advanced Seminar in Neuroscience

# ii. The Sociology of Health:

- Any two of <u>SOC 202.3</u> Environmental Sociology, <u>SOC 219.3</u> Indigenous Peoples and Justice in Canada, <u>SOC 242.3</u> Introduction to Sociology of Womens Studies, <u>SOC 319.3</u> Indigenous People in Urban Areas, <u>SOC 328.3</u> Social Inequality and Health, <u>SOC 341.3</u> Institutional Racism and Indigenous People, SOC 344.3, <u>SOC 347.3</u> Studies in Addictions, <u>SOC 402.3</u> Sociology of Agriculture and Food, <u>SOC 409.3</u> Sociology of Development, <u>SOC 420.3</u> Medical Sociology, SOC 421.3, or SOC 428.3
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care

# Choose 6 credit units from the following:

- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 206.3 Sociology of Communities and Community Development
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.

# iii. Historical and Philosophical Perspectives on Health:

Requires 3 cu of 200-level HIST courses to fulfill prerequisites. This course may be used to fulfill the Electives Requirement.

Any four of HIST 253.3, <u>HIST 303.3</u> Sex Gender and Sexuality in Africa, HIST 334.3, <u>HIST 353.3</u> Pests Plagues Pox and Politics A History of Health Care in Canada, <u>HIST 365.3</u> Recipes for a Nation Food History in Canada, HIST 387.3, HIST 481.3, <u>HIST 484.3</u> History of Madness From Enlightenment to Prozac, <u>HIST 488.3</u> Topics in History of Development, <u>PHIL</u>
 224.3 Philosophy of Sexuality

# Choose 12 credit units from the following:

- HIST 253.3
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- PHIL 224.3 Philosophy of Sexuality

# B6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ..
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- **GEOG 420.3** Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- <u>HIST 488.3</u> Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology

- PSY 348.3 Research in Human Neuropsychology
- PSV 380 3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# <u>Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies- Culture, Environment and Health</u>

J4 Major Requirement (57 credit units)

J4 Major Requirement (63 credit units)

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Option C: Culture, Environment and Health (48 credit units)

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## C2. Choose one of the following Arts clusters (12 credit units):

At least 3 credit units must be at the 300-level or higher.

# i. Cultural Psychology:

- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 227.3</u> Human Sexuality, <u>PSY 260.3</u> Health Psychology, <u>PSY 261.3</u> Community Psychology
- One of <u>PSY 207.3</u> Psychology of Death and Dying, <u>PSY 227.3</u> Human Sexuality, <u>PSY 260.3</u> Health Psychology, <u>PSY 261.3</u> Community Psychology, <u>PSY 323.3</u> Qualitative Study of

Lives and Social Practices, <u>PSY 324.3</u> Research in Qualitative Study of Lives and Social Practices, <u>PSY 325.3</u> Investigating Social Psychological Phenomena I, <u>PSY 411.3</u> Environmental Psychology Humans and Nature, <u>PSY 425.3</u> Advanced Seminar in Group Dynamics and Intergroup Relations <u>PSY 380.3 or ANTH 480.3</u>

- One of <u>PSY 323.3</u> Qualitative Study of Lives and Social Practices, <u>PSY 324.3</u> Research in Qualitative Study of Lives and Social Practices, <u>PSY 325.3</u> Investigating Social Psychological Phenomena I, <u>PSY 411.3</u> Environmental Psychology Humans and Nature, <u>PSY 425.3</u> Advanced Seminar in Group Dynamics and Intergroup Relations <u>PSY 380.3 and ANTH 480.3</u>
- PSY 224.3 Introduction to Culture and Psychology

Requires 3 cu of 200-level HIST courses. This course may be used to fulfill the Electives Requirement.

# ii. History and Philosophy of Health in a Cultural Context:

# Choose 12 credit units from the following:

- HIST 253.3
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- **HIST 273.3** History of Ancient Medicine
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- PHIL 294.3 Philosophy of Human Nature

# iii. Anthropology and Archaeology of Health:

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## C6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ...
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication

- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- HIST 488.3 Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- ..
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology
- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging

- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

# <u>Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies - Changing Climates and Health</u>

J4 Major Requirement (57 credit units) J4 Major Requirement (63 credit units)

Option D: Changing Climates and Health (48 credit units)

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D2. Choose one of the following Arts clusters (12 credit units):

Additional requirement across all clusters:

GEOG 364.3 Geography of Environment and Health

Choose **9 credit units** from **one** of the following clusters:

At least 3 credit units must be at the 300-level or higher.

# i. Changing Indigenous Environments

- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- <u>INDG 210.3</u> Indigenous Ways of Knowing or <u>INDG 241.3</u> Weaving Indigenous Science and Western Science
- INDG 221.3 Indigenous Food Sovereignty

# ii. Disasters

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# iii. Assessing and Planning

- **GEOG 240.3** Sustainable Cities and Regions
- **GEOG 322.3** Geographic Information Systems
- GEOG 323.3 Remote Sensing

- GEOG 348.3 Introduction to Demography
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing
- PLAN 445.3 Planning with Indigenous Communities

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# D6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill D4, D5 OR D6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 403.3 Anthropology of Healing
- ANTH 405.3 Anthropology of Disaster and Dislocation
- ANTH 480.3
- ARCH 270.3 Human Evolution
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ..
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 421.3 Local Water Security
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 233.3 War and Medicine from Paracelsus to Penicillin
- HIST 237.3 History of Infectious Diseases and Vaccines
- HIST 273.3 History of Ancient Medicine
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 315.3 Indigenous Health History
- HIST 333.3
- HIST 334.3
- HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 387.3
- HIST 416.3 Intoxicating History Alcohol and Drugs
- HIST 481.3
- HIST 484.3 History of Madness From Enlightenment to Prozac
- **HIST 488.3** Topics in History of Development
- INDG 210.3 Indigenous Ways of Knowing
- .
- PSY 236.3 Qualitative Research in Psychology
- PSY 242.3 Physiological Psychology
- PSY 246.3 Introduction to Human Neuropsychology
- PSY 253.3 Introduction to Cognitive Psychology

- PSY 256.3 Psychology of Language
- PSY 257.3 Clinical and Counselling Psychology
- PSY 260.3 Health Psychology
- PSY 261.3 Community Psychology
- PSY 315.3 Advanced Development I Social and Emotional
- PSY 316.3 Advanced Development II Social and Emotional Research
- PSY 317.3 Cognitive Development I
- PSY 318.3 Cognitive Development II Research
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 324.3 Research in Qualitative Study of Lives and Social Practices
- PSY 325.3 Investigating Social Psychological Phenomena I
- PSY 347.3 Advanced Human Neuropsychology
- PSY 348.3 Research in Human Neuropsychology
- PSY 380.3
- PSY 410.3 Madness Mayhem and Mania An Exploration of Mental Illness in Movies
- PSY 411.3 Environmental Psychology Humans and Nature
- PSY 418.3 Advanced Seminar in Developmental Psychology
- PSY 423.3 Disability Discourses and Social Practices
- PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations
- PSY 427.3 Sexual Minority Issues in Social Psychology
- PSY 448.3 Advanced Seminar in Neuroscience
- RLST 282.3 Religious Perspectives on Death and Dying
- SOC 202.3 Environmental Sociology
- SOC 203.3 Introduction to Race and Ethnic Relations in Canada
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 210.3 Families Social Structure and Social Change
- SOC 211.3 Families Gender Relations and Social Inequality
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 235.3 Sociology of Aging
- SOC 238.3 Sociology of Health Illness and Health Care
- SOC 242.3 Introduction to Sociology of Womens Studies
- SOC 307.3 Animals in Society
- SOC 319.3 Indigenous People in Urban Areas
- SOC 328.3 Social Inequality and Health
- SOC 341.3 Institutional Racism and Indigenous People
- SOC 344.3
- SOC 347.3 Studies in Addictions
- SOC 360.3 Globalization and Social Justice
- SOC 402.3 Sociology of Agriculture and Food
- SOC 408.3 Colonialism Gender and Violence
- SOC 409.3 Sociology of Development
- SOC 412.3 Advanced Seminar in Ethnic Relations
- SOC 420.3 Medical Sociology
- SOC 421.3
- SOC 428.3

#### Rationale:

- 1, 2 & 3: The Department of Psychology and Health Studies needs to reduce reliance on the Psychology lab courses (300-level) to be able to continue to offer program requirements with the current resources.

  4. New SOC courses have been approved which are relevant to the program.
- 5 & 7: New HIST courses have been approved which are relevant to the program. HIST 253 and 481 are no longer offered.

6: PSY 380 is no longer offered and ANTH 480 is moribund.

8 & 9: GEOG 421 (Local Water Security) is proposed concurrently and is relevant for these clusters.

10. Per the design of the program all courses included in the clusters are added to the appropriate "arts" or "science" list. Additional relevant courses are added to this list, though they don't fit in any of the existing clusters.

11. ANTH 405 was left out of the D6 list in error when this stream was added to the program.

# History

# New course(s):

#### HIST 305.3 Greek and Roman Satire

1/2 (1.5L-1.5S) By fusing humour with social criticism, satire allows authors to skewer societal customs and traditional practices while providing entertainment. Satire was popular among Greco-Roman authors, who found a ready audience for their biting critiques of prominent figures and contemporary social practices. Nothing was off limits for these writers, from destructive warmongering to illogical religious beliefs to the self-serving customs of the elite. And because these satires cover such a wide array of subjects, they provide the perfect lens through which to study the society and culture of the ancient world. In this course, we will analyze the satirical works of a number of Greek and Roman authors (e.g. Aristophanes, Lucian, Juvenal, etc.) in order to examine how they utilized this genre for social criticism and comedic effect, as well as what these works can tell us about the Greco-Roman world. Prerequisite(s): 3 credit units of 200-level HIST; or 60 credit units of university-level courses; or permission of the instructor.

Instructor(s): Kyle McLeister

Rationale: This course will improve the department's offerings in the field, reflects the research interests of the instructor and will add more variety to the 300-level HIST courses.

#### **Intermediate Studio Art**

# Minor program revisions

# **Certificate in Intermediate Studio Art**

Replace 6 credit unit courses with the new 3 credit versions (see course splits below) and replace ART 216.6 with ART 217.3 (proposed below).

# <u>Intermediate Studio Art - Certificate</u>

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# **Admission Requirements**

Completion of the Foundations of Studio Art Certificate or 24 credit units of 100-level ART courses including ART 110, ART 112 ART 124, ART 125, and ART 141. Courses used to meet the requirements for the Foundations of Studio Art Certificate/admission requirements may not be used to meet the requirements of this program.

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# Requirements (21 credit units)

Choose 6 credit units from the following:

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II
- ARTH 253.3 Indigenous Art History I
- ARTH 255.3 Indigenous Art History II

# Choose 15 credit units from the following:

No more than 6 credit units of 100-level courses may be counted in this requirement.

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I
- ART 123.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 217.3 Photography II
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 235.3 Digital Imagery
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 250.3 Topics in Specialized Media
- ART 251.3 Intermediate Printmaking

Rationale: See Studio Art program and course proposals below.

# **Linguistics**

# Minor program revisions

## Bachelor of Arts Honours, Four year and Three-year in Linguistics

In the B4 Major Requirement, add LING 114 as an alternate to LING 111, add the missing 100-level LING courses to the Linguistics requirement where LING 110 already appears, and remove closed courses from the other subject lists: ANTH 354, PHIL 418, PHIL 455, CLAS 259 and RLST 230. For Honours only, correct the error that removed senior LING courses from the broader list of restricted electives.

# Bachelor of Arts Honours (B.A. Honours) - Linguistics

B4 Major Requirement (54 credit units)

- One of: <u>LING 110.3</u> Introduction to Grammar, <u>LING 112.3</u> Dynamics of Language, or <u>LING 113.3</u> Language Use in the Digital Era
- <u>LING 111.3</u> Structure of Language or <u>LING 114.3</u> Indigenous Languages and Stories Introduction to the Structure of Language
- LING 253.3 Indigenous Languages of Canada
- LING 403.3 Research Methods in Linguistics
- LING 478.3 Honours Project

# Choose 18 credit units from the following:

- LING 200-Level, 300-Level or 400-Level
- <u>LING 110.3</u> Introduction to Grammar (100-Level LING courses are included as options, not required courses)
- LING 111.3 Structure of Language
- <u>LING 112.3</u> Dynamics of Language

- LING 113.3 Language Use in the Digital Era
- LING 114.3 Indigenous Languages and Stories Introduction to the Structure of Language

Note: No more than 12 credit units at the 100-Level may be used to satisfy the Major Requirements Choose **21 credit units** from the following:

# Linguistics

• <u>LING — 200-Level, 300-Level, 400-Level</u>

Language English Computer Science Psychology Anthropology

- ANTH 224.3 North American Plains Ethnography
- ANTH 226.3 Business and Industrial Anthropology
- ANTH 227.3 Cultures of Central and Eastern Europe
- ANTH 230.3 Cultural Dynamics
- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 235.3 Anthropological Approaches to Ethnicity and Ethnic Groups
- ANTH 240.3 Cultural Landscapes and Environments
- ANTH 244.3 Political Ecology Anthropology and Global Environmental Issues
- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 321.3 Myth Ritual and Symbol
- ANTH 326.3 Applied Anthropology
- ANTH 328.3
- ANTH 329.3 Environmental Anthropology
- ANTH 330.3 Oral History and Storytelling Anthropological Perspectives
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 339.3 Cultural Change, Globalization and Development
- ANTH 354.3
- ANTH 403.3 Anthropology of Healing
- ANTH 421.3
- ANTH 422.3 Anthropology in Context: Contemporary Influences
- ANTH Special Topics courses with the permission of the Linguistics Program Chair

# Communication

# Philosophy

- PHIL 241.3 Introduction to Symbolic Logic I
- PHIL 243.3 Introduction to Symbolic Logic II
- PHIL 418.3
- PHIL 446.3 Philosophy of Language
- PHIL 455.3
- PHIL Special Topics courses with the permission of the Linguistics Program Chair.

#### Women's and Gender Studies

- WGST 201.3 Images of Gender and Sexuality in Popular Culture
- WGST 210.3 Gendered Perspectives on Current Events
- WGST 220.3 Queering the Terrain Cultural Space and Queer Theory
- WGST 409.3
- WGST Special Topics courses with the permission of the Linguistics Program Chair.

#### Classics

- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 228.3
- CLAS 259.3

# Religious Studies

- RLST 111.3 Asian Religions
- RLST 112.3 Western Religions in Society and Culture
- RLST 113.3 Islamic Civilization and Culture
- RLST 211.3 Introduction to Hinduism
- RLST 214.3 Introduction to Philosophies of India
- RLST 215.3 Indian Yoga Heritage
- RLST 217.3 Buddhist Religious Tradition
- RLST 218.3 Developments in Buddhist Thought
- RLST 219.3 Bible and Western Culture
- RLST 230.3
- RLST 231.3 Confucianism Continuity and Change
- RLST 234.3 Chinese Religions
- RLST 240.3 Introduction to Islam
- RLST 241.3 Islam in the Modern World
- RLST 253.3 Introduction to Old Testament
- RLST 254.3 Introduction to New Testament
- RLST 255.3 Doukhobor Culture in Canada
- RLST 258.3 Religion and Culture in Bollywood Film
- RLST 282.3 Religious Perspectives on Death and Dying
- RLST 285.3 Religions and Ethnicity
- RLST 321.3 Gender and God Talk
- RLST 329.3
- RLST 330.3 Daoism
- RLST 359.3
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

# <u>Bachelor of Arts Four-year (B.A. Four-year) - Linguistics - General and Applied Linguistics Stream</u> B4 Major Requirement (42 credit units)

- <u>LING 111.3</u> Structure of Language or <u>LING 114.3</u> Indigenous Languages and Stories Introduction to the Structure of Language
- One of <u>LING 110.3</u> Introduction to Grammar , <u>LING 112.3</u> Dynamics of Language , or <u>LING 113.3</u> Language Use in the Digital Era
- LING 253.3 Indigenous Languages of Canada

# Choose 18 credit units from the following:

- <u>LING 110.3</u> Introduction to Grammar (The 100-level LING courses are included as options, not required courses)
- LING 111.3 Structure of Language
- LING 112.3 Dynamics of Language
- LING 113.3 Language Use in the Digital Era
- LING 114.3 Indigenous Languages and Stories Introduction to the Structure of Language
- LING 200-Level, 300-Level, 400-Level

# Choose **15 credit units** from the following:

Linguistics Language English

Computer Science

Psvchology

Anthropology

- **ANTH 224.3** North American Plains Ethnography
- **ANTH 226.3** Business and Industrial Anthropology
- **ANTH 227.3** Cultures of Central and Eastern Europe
- **ANTH 230.3** Cultural Dynamics
- **ANTH 231.3** Cross Cultural Perspectives on Health and Illness
- ANTH 235.3 Anthropological Approaches to Ethnicity and Ethnic Groups
- ANTH 240.3 Cultural Landscapes and Environments
- ANTH 244.3 Political Ecology Anthropology and Global Environmental Issues
- **ANTH 302.3** The Practice of Ethnography
- **ANTH 310.3** Anthropology of Gender
- **ANTH 321.3** Myth Ritual and Symbol
- **ANTH 326.3** Applied Anthropology
- ANTH 328.3
- **ANTH 329.3** Environmental Anthropology
- **ANTH 330.3** Oral History and Storytelling Anthropological Perspectives
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 339.3 Cultural Change, Globalization and Development
- ANTH 354.3
- ANTH 403.3 Anthropology of Healing
- ANTH 421.3
- ANTH 422.3 Anthropology in Context: Contemporary Influences
- ANTH Special Topics courses with the permission of the Linguistics Program Chair

#### Communication

#### Philosophy

- PHIL 241.3 Introduction to Symbolic Logic I
- PHIL 243.3 Introduction to Symbolic Logic II
- PHIL 418.3
- PHIL 446.3 Philosophy of Language
- PHIL 455.3
- PHIL Special Topics courses with the permission of the Linguistics Program Chair.

# Women's and Gender Studies

# Classics

- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 228.3
- CLAS 259.3

# Religious Studies

- RLST 111.3 Asian Religions
- RLST 112.3 Western Religions in Society and Culture
- RLST 113.3 Islamic Civilization and Culture
- RLST 211.3 Introduction to Hinduism
- RLST 214.3 Introduction to Philosophies of India
- RLST 215.3 Indian Yoga Heritage
- RLST 217.3 Buddhist Religious Tradition

- RLST 218.3 Developments in Buddhist Thought
- RLST 219.3 Bible and Western Culture
- RLST 230.3
- RLST 231.3 Confucianism Continuity and Change
- RLST 234.3 Chinese Religions
- RLST 240.3 Introduction to Islam
- RLST 241.3 Islam in the Modern World
- RLST 253.3 Introduction to Old Testament
- RLST 254.3 Introduction to New Testament
- RLST 255.3 Doukhobor Culture in Canada
- RLST 258.3 Religion and Culture in Bollywood Film
- RLST 282.3 Religious Perspectives on Death and Dying
- RLST 285.3 Religions and Ethnicity
- RLST 321.3 Gender and God Talk
- RLST 329.3
- RLST 330.3 Daoism
- RLST 359.3
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

# <u>Bachelor of Arts Four-year (B.A. Four-year) - Linguistics - Language and Speech Sciences Stream</u> B4 Major Requirement (42 credit units)

- <u>LING 111.3</u> Structure of Language or <u>LING 114.3</u> Indigenous Languages and Stories Introduction to the Structure of Language
- One of <u>LING 110.3</u> Introduction to Grammar , <u>LING 112.3</u> Dynamics of Language , or <u>LING 113.3</u> Language Use in the Digital Era

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## Bachelor of Arts Three-year (B.A. Three-year) - Linguistics

B4 Major Requirement (36 credit units)

- <u>LING 111.3</u> Structure of Language or <u>LING 114.3</u> Indigenous Languages and Stories Introduction to the Structure of Language
- One of <u>LING 110.3</u> Introduction to Grammar , <u>LING 112.3</u> Dynamics of Language , or <u>LING 113.3</u> Language Use in the Digital Era
- LING 253.3 Indigenous Languages of Canada

# Choose 15 credit units from the following:

- LING 200-Level, 300-Level or 400-Level
- <u>LING 110.3</u> Introduction to Grammar (The 100-level LING courses are included as options, not required courses)
- <u>LING 111.3</u> Structure of Language
- LING 112.3 Dynamics of Language
- LING 113.3 Language Use in the Digital Era
- LING 114.3 Indigenous Languages and Stories Introduction to the Structure of Language

Choose 12 credit units from the following:

Linguistics Language English

Computer Science

# Psychology

# Anthropology

- ANTH 224.3 North American Plains Ethnography
- ANTH 226.3 Business and Industrial Anthropology
- ANTH 227.3 Cultures of Central and Eastern Europe
- ANTH 230.3 Cultural Dynamics
- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 235.3 Anthropological Approaches to Ethnicity and Ethnic Groups
- ANTH 240.3 Cultural Landscapes and Environments
- ANTH 244.3 Political Ecology Anthropology and Global Environmental Issues
- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 321.3 Myth Ritual and Symbol
- ANTH 326.3 Applied Anthropology
- ANTH 328.3
- ANTH 329.3 Environmental Anthropology
- ANTH 330.3 Oral History and Storytelling Anthropological Perspectives
- ANTH 332.3 Anthropology of Infectious Disease
- ANTH 339.3 Cultural Change, Globalization and Development
- ANTH 354.3
- ANTH 403.3 Anthropology of Healing
- ANTH 421.3
- ANTH 422.3 Anthropology in Context: Contemporary Influences
- ANTH Special Topics courses with the permission of the Linguistics Program Chair

# Communication

#### Philosophy

- PHIL 241.3 Introduction to Symbolic Logic I
- PHIL 243.3 Introduction to Symbolic Logic II
- PHIL 418.3
- PHIL 446.3 Philosophy of Language
- PHIL 455.3
- PHIL Special Topics courses with the permission of the Linguistics Program Chair.

## Women's and Gender Studies

#### Classics

- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 228.3
- CLAS 259.3

## Religious Studies

- RLST 111.3 Asian Religions
- RLST 112.3 Western Religions in Society and Culture
- RLST 113.3 Islamic Civilization and Culture
- RLST 211.3 Introduction to Hinduism
- RLST 214.3 Introduction to Philosophies of India
- RLST 215.3 Indian Yoga Heritage
- RLST 217.3 Buddhist Religious Tradition
- RLST 218.3 Developments in Buddhist Thought
- RLST 219.3 Bible and Western Culture
- RLST 230.3
- RLST 231.3 Confucianism Continuity and Change

- RLST 234.3 Chinese Religions
- RLST 240.3 Introduction to Islam
- RLST 241.3 Islam in the Modern World
- RLST 253.3 Introduction to Old Testament
- RLST 254.3 Introduction to New Testament
- RLST 255.3 Doukhobor Culture in Canada
- RLST 258.3 Religion and Culture in Bollywood Film
- RLST 282.3 Religious Perspectives on Death and Dying
- RLST 285.3 Religions and Ethnicity
- RLST 321.3 Gender and God Talk
- RLST 329.3
- RLST 330.3 Daoism
- RLST 359.3
- RLST 361.3 Rabbinic Literature
- RLST 363.3
- RLST 365.3 Bible and Film

Rationale: LING 111 and 114 are alternate prerequisites for 200-level LING courses and the department feels that the same should be the case in program requirements, there is no preference for any junior LING course over another in the Linguistics requirement, and with the exception of ANTH 354, all of the courses being removed are closed. ANTH 354 became UKR 354 which can be used in the Languages list. In the Honours program only, the option to take senior LING courses as part of the restricted electives was removed from the program in error.

# **Mathematical Physics**

# Minor program revisions

# **Bachelor of Science Honours in Mathematical Physics**

Remove EP 271.3 as a required course in the C4 Major Requirement.

# Bachelor of Science Honours (B.Sc. Honours) - Mathematical Physics

C4 Major Requirement (90 87 credit units)

## Junior course requirements (12 credit units):

- PHYS 115.3 Physics and the Universe
- PHYS 125.3 Physics and Technology

#### Choose **3 credit units** from the following:

- MATH 110.3 Calculus I
- MATH 176.3 Advanced Calculus I

#### Choose **3 credit units** from the following:

- MATH 116.3 Calculus II
- MATH 177.6 Advanced Calculus II

# Senior course requirements (78 75 credit units):

- ASTR 411.3 Gravitation and Cosmology
- EP 253.1 Modern Physics Laboratory I
- EP 271.3 Heat Kinetic Theory and Thermodynamics
- MATH 164.3 Introduction to Linear Algebra
- MATH 238.3 Introduction to Differential Equations
- MATH 266.3 Linear Algebra II

- MATH 276.3 Vector Calculus I
- MATH 277.3 Vector Calculus II
- MATH 339.3 Differential Equations and Special Functions
- MATH 352.3 Elementary Differential Geometry
- MATH 371.3 Real Analysis I
- MATH 379.3 Complex Analysis
- MATH 402.0 Honours Thesis in Mathematics and Statistics
- PHYS 223.3 Mechanics I
- PHYS 230.1 Electricity and Magnetism Laboratory
- PHYS 231.1 Optics Laboratory
- PHYS 252.3 Foundations of Modern Physics
- PHYS 323.3 Mechanics II
- PHYS 356.3 Intermediate Electromagnetism
- PHYS 371.3 Statistical and Thermal Physics
- PHYS 383.3 Quantum Mechanics I
- PHYS 481.3 Quantum Mechanics II
- PHYS 490.0 Physics Seminars
- STAT 241.3 Probability Theory

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# C5 Electives Requirement (3 6 credit units)

Arts and Science courses, or those from other colleges that have been approved for Arts and Science credit, to complete the requirements for 120 credit unit Four-year program, of which at least 66 must be at the 200-level or higher.

If you require further assistance, please contact the Arts and Science Undergraduate Student Office. Rationale: EP 271 covers similar content to PHYS 371, and therefore the program committee has decided that both are not needed. This change will create a bit more flexibility in this program, which is desirable.

# <u>Music</u>

## Minor program revisions

# Bachelor of Music Honours and Four-year – Performance and Individualized

Add language to the G4 Applied Music Ensemble Requirement for each program level to explicitly describe the requirements based on the student's primary instrument. Remove MUAP 206.1 as a required ensemble for Voice majors in the Performance program.

## **Bachelor of Music Individualized (B.Mus. Individualized)**

**G4** Applied Music Ensemble (4 credit units)

Brass, Woodwind and Percussion students must take a minimum total of 4 credit units of <u>MUAP</u> **201.1** Wind Orchestra or **MUAP 202.1** Concert Band.

Voice students must take a minimum of 4 credit units of <u>MUAP 203.1</u> Greystone Singers or <u>MUAP 204.1</u> University Chorus.

Orchestral String students must take a minimum total 4 credit units of <u>MUAP 205.1</u> Orchestra with Strings or <u>MUAP 212.1</u> Symphony Orchestra.

Piano and Guitar students may choose to audition for either wind band and/or choir participation each year. The department will determine in which band or choir the piano and guitar student is to participate through the ensemble audition process.

Individualized students are expected to participate in at least one departmental ensemble per year for four years.

Choose 4 credit units from the following:

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 212.1 Symphony Orchestra

# **Bachelor of Music Performance Honours (B.Mus. Performance Honours)**

**G4** Applied Music Ensemble (7 credit units)

Voice students must take 2 credit units of MUAP 206.1 Music Theatre and 2 a minimum total of 4 credit units of from MUAP 203.1 Greystone Singers and/or MUAP 204.1 University Chorus.

Piano students must take 2 credit units of <u>MUAP 207.1</u> Chamber Ensemble. Piano majors may choose to audition for either wind band and/or choir participation each year. The department will determine in which band or choir the student will participate through the ensemble audition process.

Brass, Woodwind and Percussion students must take a minimum total of 4 credit units of **MUAP 201.1** Wind Orchestra and **MUAP 202.1** Concert Band.

Orchestral String students must take 2 credit units of <u>MUAP 207.1</u> Chamber Ensemble; and also must take a minimum total of 4 credit units from <u>MUAP 205.1</u> Orchestra with Strings and <u>MUAP 212.1</u> Symphony Orchestra.

Guitar students may choose to audition for either or both of wind band or choir participation each year. The department will determine in which band or choir the student will participate through the ensemble audition process.

All performance majors must participate in at least one departmental ensemble per year for four years.

Choose 2 credit units from the following:

. . .

Rationale: The department would like to clarify the requirements for student participation in Applied Music Ensembles so that the Catalogue reflects the department's practices. Not all voice majors choose to pursue careers in Music Theatre or Opera, so removal of the Music Theatre requirement provides more flexibility.

## **Music Education**

# Minor program revision

# Bachelor of Music Honours and Four-year in Music Education - Secondary

Add language to the G4 Applied Music Ensemble Requirement for each program level to explicitly describe the requirements based on the student's primary instrument. In the G2 Music Requirement, Secondary concentration only, add MUS 438.3 as an alternative to MUS 428.3.

Bachelor of Music Honours (Music Education) (B.Mus.(Mus.Ed.)) - Early/Middle Years Bachelor of Music Honours (Music Education) (B.Mus.(Mus.Ed.)) - Secondary

Bachelor of Music (Music Education) (B.Mus.(Mus.Ed.)) - Early/Middle Years

Bachelor of Music (Music Education) (B.Mus.(Mus.Ed.)) - Secondary

# **G4** Applied Music Ensemble (4 credit units)

Brass, Woodwind and Percussion students must take a minimum total of 4 credit units of <u>MUAP</u> <u>201.1</u> Wind Orchestra or <u>MUAP 202.1</u> Concert Band.

Voice students must take a minimum of 4 credit units of <u>MUAP 203.1</u> Greystone Singers or <u>MUAP 204.1</u> University Chorus.

Orchestral String students must take a minimum total 4 credit units of <u>MUAP 205.1</u> Orchestra with Strings or **MUAP 212.1** Symphony Orchestra.

Piano and Guitar students may choose to audition for either wind band and/or choir participation each year.

The department will determine which band or choir the piano and guitar student is to participate in through the ensemble audition process. Music Education students are expected to participate in at least one departmental ensemble per year for four years.

Choose 4 credit units from the following:

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Bachelor of Music Honours (Music Education) (B.Mus.(Mus.Ed.)) - Secondary Bachelor of Music (Music Education) (B.Mus.(Mus.Ed.)) - Secondary G2 Music (41 credit units)

- EMUS 115.3 Introduction to Music Education
- MUS 120.2 Musicianship I
- MUS 121.2 Musicianship II
- MUS 133.3 Fundamentals of Music Theory I
- MUS 134.3 Fundamentals of Music Theory II
- MUS 155.3 Music in History and the Present
- <u>MUS 156.3</u> Music History I Compositions Cultures and Connections from Antiquity to the High Classical Period
- MUS 160.0 Keyboard Proficiency (Piano and organ majors are exempt from this requirement)
- MUS 220.2 Musicianship III
- MUS 221.2 Musicianship IV
- MUS 233.3 Fundamentals of Music Theory III
- MUS 234.3 Fundamentals of Music Theory IV
- MUS 255.3 Music History II Compositions Cultures and Connections from the Late Classical Period to the Present
- MUS 325.3
- MUS 428.3 Choral Pedagogy or MUS 438.3 Seminar in Instrumental Conducting

Rationale: The department would like to clarify the requirements for student participation in Applied Music Ensembles so that the Catalogue reflects the department's practices. MUS 438.3 was a course option for students in the Secondary program and was accidentally removed from the Catalogue entry between 2018-19 and 2019-20. This revision correct that error.

# **Philosophy**

# Minor program revision

# Bachelor of Arts Honours, Double Honours and Four-year in Philosophy

Add PHIL 462.3 (proposed below) to the list of Social and Political Philosophy courses in the A4 Major Requirement in each of the levels.

## Bachelor of Arts Honours (B.A. Honours) - Philosophy

A4 Major Requirement (36 credit units)

Of the total credit units required no more than 6 credit units may be at the 100-level, at least 12 credit units must be at the 300-level or higher.

- PHIL 206.3 Early Modern Philosophy
- PHIL 233.3 Ethical Theory
- PHIL 241.3 Introduction to Symbolic Logic I

## Choose 6 credit units from the following:

• 100-Level or 200-Level PHIL Courses

# Choose at least 3 credit units from the following:

- PHIL 251.3 Philosophy of Science
- PHIL 281.3 Theory of Knowledge
- PHIL 285.3 Persons Minds and Bodies
- PHIL 292.3 Metaphysics Reality Existence and Change

#### Choose at least 3 credit units from the following:

- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 209.3 Ancient Philosophy Aristotle to Plotinus
- PHIL 216.3 20th Century Philosophy The Analytic Tradition
- PHIL 218.3 Existentialism
- PHIL 314.3 Kant
- PHIL 319.3 Topics in Recent Continental Philosophy

## Choose at least 3 credit units from the following:

- PHIL 262.3 Social and Political Philosophy
- PHIL 271.3 Aesthetics and Philosophy of Art
- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

#### Choose **12 credit units** from the following:

• 200-Level, 300-Level or 400-Level PHIL Courses

Students considering graduate work in philosophy are strongly urged to plan their programs with a faculty advisor.

# Bachelor of Arts Four-year (B.A. Four-year) - Philosophy

A4 Major Requirement (36 credit units)

Of the total credit units required, at least 12 credit units must be at the 300-level or higher.

- PHIL 206.3 Early Modern Philosophy
- PHIL 233.3 Ethical Theory
- PHIL 241.3 Introduction to Symbolic Logic I

# Choose 6 credit units from the following:

• 100-Level or 200-Level PHIL Courses

#### Choose at least 3 credit units from the following:

- PHIL 251.3 Philosophy of Science
- PHIL 281.3 Theory of Knowledge
- PHIL 285.3 Persons Minds and Bodies
- PHIL 292.3 Metaphysics Reality Existence and Change

#### Choose at least 3 credit units from the following:

- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 209.3 Ancient Philosophy Aristotle to Plotinus
- PHIL 216.3 20th Century Philosophy The Analytic Tradition

- PHIL 218.3 Existentialism
- PHIL 314.3 Kant
- PHIL 319.3 Topics in Recent Continental Philosophy

#### Choose at least 3 credit units from the following:

- PHIL 262.3 Social and Political Philosophy
- PHIL 271.3 Aesthetics and Philosophy of Art
- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

# Choose 12 credit units from the following:

• 200-Level, 300-Level or 400-Level PHIL Courses

# Bachelor of Arts Double Honours - Philosophy - Major 1

A4 Major Requirement (36 credit units)

Of the total credit units required no more than 6 credit units may be at the 100-level, at least 12 credit units must be at the 300-level or higher.

- PHIL 206.3 Early Modern Philosophy
- PHIL 233.3 Ethical Theory
- PHIL 241.3 Introduction to Symbolic Logic I

## Choose 6 credit units from the following:

• 100-Level or 200-Level PHIL Courses

## Choose at least 3 credit units from the following:

- PHIL 251.3 Philosophy of Science
- PHIL 281.3 Theory of Knowledge
- PHIL 285.3 Persons Minds and Bodies
- PHIL 292.3 Metaphysics Reality Existence and Change

## Choose at least 3 credit units from the following:

- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 209.3 Ancient Philosophy Aristotle to Plotinus
- PHIL 216.3 20th Century Philosophy The Analytic Tradition
- PHIL 218.3 Existentialism
- PHIL 314.3 Kant
- PHIL 319.3 Topics in Recent Continental Philosophy

#### Choose at least 3 credit units from the following:

- PHIL 262.3 Social and Political Philosophy
- PHIL 271.3 Aesthetics and Philosophy of Art
- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

# Choose 12 credit units from the following:

• 100-Level, 200-Level, 300-Level or 400-Level PHIL Courses

# **Double Honours - Philosophy - Major 2**

Requirements (36 credit units)

Students who are admitted to a Double Honours program (Philosophy and another subject) must be counseled in both departments. Students will fulfill the Philosophy portion of the program as follow: Of the total credit units required no more than 6 credit units may be at the 100-level, at least 12 credit units must be at the 300-level or higher.

- PHIL 206.3 Early Modern Philosophy
- PHIL 233.3 Ethical Theory
- PHIL 241.3 Introduction to Symbolic Logic I

#### Choose 6 credit units from the following:

• 100-Level or 200-Level PHIL Courses

# Choose at least 3 credit units from the following:

- PHIL 251.3 Philosophy of Science
- PHIL 281.3 Theory of Knowledge
- PHIL 285.3 Persons Minds and Bodies
- PHIL 292.3 Metaphysics Reality Existence and Change

# Choose at least 3 credit units from the following:

- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 209.3 Ancient Philosophy Aristotle to Plotinus
- PHIL 216.3 20th Century Philosophy The Analytic Tradition
- PHIL 218.3 Existentialism
- PHIL 314.3 Kant
- PHIL 319.3 Topics in Recent Continental Philosophy

# Choose at least **3 credit units** from the following:

- PHIL 262.3 Social and Political Philosophy
- PHIL 271.3 Aesthetics and Philosophy of Art
- PHIL 333.3 Metaethics
- PHIL 334.3 Topics in Moral Philosophy
- PHIL 362.3 Topics in Political Philosophy
- PHIL 433.3 Topics in Ethics
- PHIL 462.3 Advanced Topics in Social and Political Philosophy

# Choose 12 credit units from the following:

• 100-Level, 200-Level, 300-Level or 400-Level PHIL Courses

Rationale: PHIL 462.3 Advanced Topics in Social and Political Philosophy is a relevant course to this major and the identified list, and its addition will create more flexibility for students.

# New course(s):

## PHIL 462.3 Advanced Topics in Social and Political Philosophy

1/2 (3S) An advanced seminar in social and political philosophy that will focus every year on a different issue, philosopher or theories.

Prerequisite(s): 6 credit units in philosophy at the 200-level or above, and completion of 24 credit units at the university level; or permission of the instructor.

Note: Topical content will vary from year to year. See department for latest details. Students may take this course more than once for credit, provided the topic or period covered in each offering differs substantially. Students must consult the department to ensure that the topics covered are different. Instructor(s): Pierre-Francois Noppen

Rationale: One of the requirements for the Bachelors of Arts Honours in Philosophy is that students complete one class (3 credits) at the 400-level, but there currently is no course in Social and Political Philosophy at this level. Students in our Honours programs have requested that a course in Social and Political Philosophy a the 400-level be created. The course also corresponds to the area of expertise of the instructor.

# **Political Studies**

# New course(s):

# **POLS 361.3 Canadian Political Economy**

1/2 (3L) This course introduces students to the foundations and theory of Canadian Political Economy, with a particular focus on the historical development, and present-day conditions, of capitalism in Canada. The course also explores issues such as the relationship between the Canadian state and the economy; the intersection of capitalism and colonialism; and the political economy of migration, the resource industry, and/or care work. Lastly, the course emphasizes how socio-economic changes have also engendered new forms of struggle and resistance.

Prerequisite(s): 12 credit units of POLS and/or IS; or 36 credit units at the university level, including at least 6 credit units of ANTH, ENG, HIST, INDG, IS, POLS, RLST, SOC, or WGST. Instructor(s): Maggie FitzGerald

Rationale: This course is being created to reflect change in the department faculty and their research areas, to contribute to the set of courses focusing on politics in Canada, and in response to student requests for greater exposure to political economic theory.

# **Psychology**

## Minor course revisions

#### **PSY 233.3 Statistical Methods in Behavioural Sciences**

New course title: Statistical Methods in Behavioural Sciences A

Remove GE 210, PLSC 214, PLSC 314, STAT 242, STAT 245, and STAT 246 as equivalent courses. Change to Note:

Current Note: Refer to Statistics Course Regulations in the Arts & Science section of the Catalogue if intending to use for Arts & Science credit.

Proposed Note: Students with credit for COMM 104, ECON 204, EPSE 441, GEOG 301, SOC 225, STAT 244 or equivalent may not take this course for credit. Refer to Statistics Course Regulations in the Arts & Science section of the Catalogue if intending to use for Arts & Science credit.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from list a need to be removed as equivalents from this list b course.

## **PSY 234.3 Statistical Methods in Behavioural Sciences**

New course title: Statistical Methods in Behavioural Sciences B

Remove COMM 207, ECON 204, GE 210, GEOG 301, PLSC 214, PLSC 314, SOC 240, SOC 325, STAT 242, STAT 245, and STAT 246 as equivalent courses.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from lists a and c need to be removed from this list c course.

#### Regional and Urban Planning

#### Minor program revision

# Bachelor of Arts Honours and Four-year in Regional and Urban Planning

Add CMPT 140; ECON 114; MATH 101, 102, 133, 150, 163, 164, 176 and 177; PHYS 115; and STAT 103 to the options in the Quantitative Reasoning requirement in B1. Add PLAN 481.3 to the B4 Major requirement as an alternate to PLAN 429 (was 329), PLAN 441, PLAN 445 and PLAN 446, and increase the requirement for these courses from 3 to 6 credit units. Delete requirement for a course from AREC 432, ECON 347 and ECON 348.

Bachelor of Arts Honours (B.A. Honours) - Regional and Urban Planning Bachelor of Arts Four-year (B.A. Four-year) - Regional and Urban Planning

B1 College Requirement (9 credit units)

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#### **Quantitative Reasoning**

Choose 3 credit units from the following:

- CMPT 140.3 Introduction to Creative Computing
- <u>ECON 114.3</u> Introductory Macroeconomics
- MATH 101.3 Quantitative Reasoning
- MATH 102.3 Precalculus Mathematics
- MATH 104.3 Elementary Calculus
- MATH 110.3 Calculus I
- MATH 121.3
- MATH 125.3 Mathematics for the Life Sciences
- MATH 133.4 Engineering Mathematics I
- MATH 150.3 Mathematics for Early and Middle Years Teachers
- MATH 163.3 Introduction to Mathematical Reasoning
- MATH 164.3 Introduction to Linear Algebra
- MATH 176.3 Advanced Calculus I
- MATH 177.3 Advanced Calculus II
- STAT 103.3 Elementary Probability
- PHYS 115.3 Physics and the Universe

# Bachelor of Arts Honours (B.A. Honours) - Regional and Urban Planning

B4 Major Requirement (63-66 credit units)

- AREC 432.3 Rural Development Theory and Applications or ECON 347.3 or ECON 348.3 Urban Economics
- **ECON 211.3** Intermediate Microeconomics
- **GEOG 222.3** Geomatics
- GEOG 240.3 Sustainable Cities and Regions
- **GEOG 280.3** Environmental Geography
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 360.3 Urban Data Analysis and Visualization
- PLAN 390.3 Research and Field Methods in Planning
- PLAN 395.3 Planning History and Theory
- PLAN 410.3 Planning Internship or PLAN 411.0 Planning Work Placement
- PLAN 442.3 Regional Planning

- PLAN 490.3 Senior Planning Studio
- PLAN 491.3 Honours Thesis in Planning
- PLAN 495.3 Professional Planning Practice
- POLS 306.3 Local Governance and Policy or POLS 328.3 Public Policy Analysis
- <u>SOC 204.3</u> Rural Sociology and Rural Development or <u>SOC 206.3</u> Sociology of Communities and Community Development

#### Choose 3 6 credit units from the following:

- PLAN 429.3 Integrated Water Resource Planning PLAN 329.3
- PLAN 441.3 Challenges in Urban Development
- PLAN 445.3 Planning with Indigenous Communities
- PLAN 446.3 Advanced Urban Design Studio
- PLAN 481.3 Land Use and Transportation Planning

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# Bachelor of Arts Four-year (B.A. Four-year) - Regional and Urban Planning

B4 Major Requirement (60-63 credit units)

- AREC 432.3 Rural Development Theory and Applications or ECON 347.3 or ECON 348.3 Urban Economics
- ECON 211.3 Intermediate Microeconomics
- GEOG 222.3 Geomatics
- GEOG 240.3 Sustainable Cities and Regions
- **GEOG 280.3** Environmental Geography
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 360.3 Urban Data Analysis and Visualization
- PLAN 390.3 Research and Field Methods in Planning
- PLAN 395.3 Planning History and Theory
- PLAN 410.3 Planning Internship or PLAN 411.0 Planning Work Placement
- PLAN 442.3 Regional Planning
- PLAN 490.3 Senior Planning Studio
- PLAN 495.3 Professional Planning Practice
- POLS 306.3 Local Governance and Policy or POLS 328.3 Public Policy Analysis
- <u>SOC 204.3</u> Rural Sociology and Rural Development or <u>SOC 206.3</u> Sociology of Communities and Community Development

#### Choose **3 6 credit units** from the following:

- PLAN 429.3 Integrated Water Resource Planning PLAN 329.3
- PLAN 441.3 Challenges in Urban Development
- PLAN 445.3 Planning with Indigenous Communities
- PLAN 446.3 Advanced Urban Design Studio
- PLAN 481.3 Land Use and Transportation Planning

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Rationale: The added courses will offer greater flexibility for students and will better facilitate transfer into this major from others. Removal of the 300-level ECON requirement (3) means that students are no longer required to take a calculus course as a required prerequisite.

The required 400-level PLAN course options in the B4 Major Requirement serve as senior capstones for the degree, with each course representing a senior core topic area. PLAN 481 is a recently approved course, and is appropriate to be added to the list. In addition, requiring students to choose 6 credit units from this list will help ensure students have more depth in their senior courses, and more options. Not all these courses will be offered each year, so this greater flexibility will be helpful for students. ECON 347 has not been offered since Fall 2014, and AREC 432 and ECON 348 are no longer on offer by the respective departments. There are no suitable equivalent replacement courses, and the RUP committee feels that the currently required ECON courses (111 and 211) provide sufficient material. Other courses in PLAN provide sufficient urban economics content.

#### Science

#### Course deletion:

### SC 200.3 Cultural and Physical Science

This course was used in the past by Education (including NORTEP) but hasn't been needed for several years. As it is not accepted in Arts and Science for credit, it can be deleted with no effect on any USask program.

#### Sociology

#### Minor course revisions

#### SOC 225.3 An Introduction to Survey Research and Data Analysis

Remove GE 210, PLSC 214, PLSC 314, STAT 242, STAT 245, and STAT 246 as equivalent courses. Change to Note:

Current Note: Students with credit for Stat 244 or equivalent may not take this course for credit. New Note: Students with credit for COMM 104, ECON 204, EPSE 441, GEOG 301, PSY 233, STAT 244 or equivalent may not take this course for credit. Refer to Statistics Course Regulations in the Arts & Science section of the Catalogue if intending to use for Arts & Science credit.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from list a need to be removed from this list b course.

#### SOC 325.3 Applied Quantitative Research in Sociology

Remove COMM 207, ECON 204, GE 210, PLSC 214, PLSC 314, PSY 234, SOC 240, STAT 242, STAT 245, and STAT 246 as equivalent courses.

Change to Note:

Current Note: Students with credit for SOC 240 or equivalent may not take this course for credit. New Note: Refer to Statistics Course Regulations in the Arts & Science section of the Catalogue if intending to use for Arts & Science credit.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from lists a and c need to be removed from this list c course.

#### **Statistics**

# Minor course revisions STAT 103.3 Elementary Probability

Change to Note:

Current Note: Credit will not be granted for STAT 103 if it is taken concurrently with or after STAT 241, STAT 242, STAT 245, STAT 246, PLSC 214, GE 210, COMM 207, PSY 234 or SOC 325. Please refer to the Statistics Course Regulations in the Arts & Science section of the Course and Program Catalogue. New Note: Credit will not be granted for STAT 103 if it is taken concurrently with or after STAT 241 or STAT 242. Please refer to the Statistics Course Regulations in the Arts & Science section of the Course and Program Catalogue.

Rationale: There is very little overlapping content in STAT 103 and any of STAT 244, 245, or 246, so there is no reason to prevent students from taking these courses (or equivalent) at the same time or before taking STAT 103.

#### STAT 242.3 Statistical Theory and Methodology

Remove COMM 104, COMM 207, ECON 204, EPSE 441, EPSY 233, GE 210, GEOG 301, PLSC 214, PLSC 314, PSY 233, PSY 234, SOC 225, SOC 240, SOC 325, STAT 244, STAT 245 and STAT 246 as equivalent courses.

Change to Note:

Current Note: Students may receive credit for only one of STAT 242, STAT 244, STAT 245, or STAT 246. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

New Note: Students may take STAT 242 for credit after GE 210, PLSC 214, STAT 245 or STAT 246, but may not take GE 210, PLSC 214, STAT 245 or STAT 246 for credit after completing STAT 242 for credit. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from b, c, and (old) d need to be removed from this course. The department has reviewed the course content and confirms that there is adequate progression from STAT 244, to STAT 245/246, and then to STAT 242 to allow students to take 3 of these for credit. GE 210 and PLSC 214 (formerly 314) will now be considered equivalent to STAT 245/246, and students with credit for those courses will be allowed to take STAT 242 for credit after.

#### **STAT 244.3 Elementary Statistical Concepts**

Remove GE 210, NURS 390, PLSC 214, STAT 242, STAT 245, and STAT 246 as equivalent courses. Change to Note:

Current Note: Students may receive credit for only one of PLSC 214, STAT 242, STAT 244, STAT 245, or STAT 246. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

New Note: Students with credit for COMM 104, ECON 204, EPSE 441, GEOG 301, PSY 233, SOC 225 or equivalent may not take this course for credit. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

Rationale: Per the proposed revisions to the Statistics Course Regulations, allowing students to take 9 credit units of courses from the included lists (limit of 3 credit units from list b), the equivalents from list a need to be removed from this list b course. See STAT 242 above.

#### STAT 245.3 Introduction to Statistical Methods

Remove COMM 104, COMM 207, ECON 204, EPSE 441, GEOG 301, PSY 233, PSY 234, SOC 225, SOC 240, SOC 325 and STAT 244 as equivalent courses.

Change to Note:

Current Note: Students may receive credit for only one of STAT 242, STAT 244, STAT 245, or STAT 246. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

New Note: Students with credit for GE 210, PLSC 214, STAT 242 or STAT 245 may not take this course for credit. Students may take STAT 242 for credit in a subsequent term. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue. Rationale: See STAT 242 above.

#### **STAT 246.3 Introduction to Biostatistics**

Remove COMM 104, COMM 207, ECON 204, EPSE 441, GEOG 301, PSY 233, PSY 234, SOC 225, SOC 240, SOC 325 and STAT 244 as equivalent courses.

Change to Note:

Current Note: One of MATH 104, MATH 110, MATH 176, or STAT 103 is recommended but not essential. Students may receive credit for only one of STAT 242, STAT 244, STAT 245, or STAT 246. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue.

New Note: One of MATH 104, MATH 110, MATH 176, or STAT 103 is recommended but not essential. Students with credit for GE 210, PLSC 214, STAT 242 or STAT 245 may not take this course for credit. Students may take STAT 242 for credit in a subsequent term. Please refer to the Statistics Course Regulations in the Arts and Science section of the Course and Program Catalogue. Rationale: See STAT 242 above.

#### **Studio Art**

#### Minor program revisions

#### **Bachelor of Fine Arts Honours in Studio Art**

In the E3 Studio Art Requirement replace 6 credit unit courses with the new 3 credit versions (see course splits below) and eliminate the credit unit ranges that were caused my the mix of 3 and 6 credit unit courses in the same requirement. Remove the long lists of ART courses and replace an inclusive list of ART courses, and add INTS 111.3. Add ARTH 318.3 as a required E4 Art History Requirement course, and to this requirement also add other courses which have previously been added to the D4 Major Requirement in the Art History programs.

#### Bachelor of Fine Arts Honours (B.F.A. Honours) in Studio Art

E3 Studio Art Requirement (57 credit units)

Students who wish to complete a degree in Studio Art are strongly encouraged to declare this major as early as possible in their program, and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

- ART 110.3 Art Today Ideas and Practices
- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation
- ART 495.0 BFA Exhibition

Choose 6-12 9 credit units from the following:

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I
- ART 123.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II

- ART 161.3 Foundation in Photography I
- ART 236.3 Digital and Integrated Practice II A

# Choose 33-39 36 credit units from the following:

- ART 100-Level, 200-Level, 300-Level, 400-Level
- INTS 111.3 Design and Society

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing**

- ART 112.6 Drawing | Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

#### **Sculpture**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

#### E4 Art History Requirement (18 credit units)

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II
- ARTH 318 Exhibition Technique

#### Choose 42 9 credit units from the following:

- ARTH 200-Level, 300-Level, 400-Level
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- HIST 308.6 Rome Building and Living in the Ancient City
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts

Rationale: The Department of Art and Art History is continuing work to split or replace all 6 credit unit courses. Replacing the long lists of ART courses with an inclusive list will prevent the need for program revisions each time a course is added or deleted. INTS 111.3 is a course that can be used in the major as the content is appropriate. Adding ART 318.3 as a required course will help BFA students prepare for their required BFA exhibition. Adding the courses which have been approved for inclusion in the Art History programs here will provide students with more flexibility.

# Minor program revisions

#### Bachelor of Arts Double Honours, Four-year and Three-year in Studio Art

In the D4 Major Requirement replace 6 credit unit courses with the new 3 credit versions (see course splits below) and eliminate the credit unit ranges that were caused my the mix of 3 and 6 credit unit courses in the same requirement. Remove the long lists of ART courses and replace an inclusive list of ART courses, and add INTS 111.3. Four the Double Honours Art and Art History only, eliminate the reference to ART 340, which is no longer offered.

#### Bachelor of Arts Four-year (B.A. Four-year) - Studio Art

D4 Major Requirement (39 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

• ART 110.3 Art Today Ideas and Practices

#### Art History (12 credit units)

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

## Choose 6 senior credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts

#### Studio Areas (24 credit units)

Students are strongly encouraged to complete foundation courses in the first or second year of their program.

- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation

#### Choose 3-6 3 credit units from the following:

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I

- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I
- ART 236.3 Digital and Integrated Practice II A

# Choose 9-12 12 credit units from the following:

- 100-level, 200-Level, 300-Level or 400-Level ART Courses
- INTS 111.3 Design and Society

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing:**

- ART 112.6 Drawing I Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking:**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice:**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

# Sculpture:

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography:**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

#### Bachelor of Arts Three-year (B.A. Three-year) - Studio Art

D4 Major Requirement (33 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

• ART 110.3 Art Today Ideas and Practices

# Art History (12 credit units)

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

# Choose 6 senior credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts

#### Studio Areas (18 credit units)

Students are strongly encouraged to complete foundation courses in the first or second year of their program.

- <u>ART 112.6</u> Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation

#### Choose 3-6 3 credit units from the following:

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I
- ART 236.3 Digital and Integrated Practice II A

# Choose 3-6 6 credit units from the following:

- 100-level, 200-Level, 300-Level or 400-Level ART Courses
- INTS 111.3 Design and Society

# **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing:**

- ART 112.6 Drawing | Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B

- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking:**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice:**

- ART 136.3 Digital and Integrated Practice | Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

# Sculpture:

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography:**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

# Bachelor of Arts - Double Honours - Studio Art - Major 1

D4 Major Requirement (39 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

• ART 110.3 Art Today Ideas and Practices

# **Art History (6 credit units)**

- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

# Studio Areas (24 credit units)

- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation

Choose 9 credit units from two of the following courses (6-12 credit units):

- ART 111.6 Painting I Foundation
- ART 124.3 Foundation in Painting I
- ART 125.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I

Choose 3-9 6 credit units from the following:

• 100-level, 200-Level, 300-Level or 400-Level ART Courses

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B

- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing:**

- ART 112.6 Drawing I Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking:**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice:**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

#### Sculpture:

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography:**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

#### Art History or Studio Art (6 credit units)

Choose **6 credit units** from the following:

- 100-level, 200-Level, 300-Level or 400-Level ART Courses
- 200-Level, 300-Level or 400-Level ARTH Courses
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts
- INTS 111.3 Design and Society

# <u>Double Honours - Studio Art - Major 2</u>

Requirements (39 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

- ART 110.3 Art Today Ideas and Practices
- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation
- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

Choose 9 credit units from two of the following courses (6-12 credit units):

- ART 111.6 Painting I Foundation
- ART 124.3 Foundation in Painting I

- ART 125.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I

#### Choose 3-9 6 credit units from the following:

• 100-level, 200-Level, 300-Level or 400-Level ART Courses

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing**

- ART 112.6 Drawing I Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

## **Printmaking**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

#### **Sculpture**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture | Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

#### Choose **6 credit units** from the following:

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 200-Level, 300-Level, 400-Level
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts
- INTS 111.3 Design and Society

If you require further assistance, please contact the Arts and Science Undergraduate Student Office.

#### Bachelor of Arts Double Honours - Studio Art and Art History- Majors 1 and 2 D4 Major Requirement (75 credit units)

Program majors are strongly encouraged to declare a major as early as possible in their program and to complete foundation courses in the first and second year of their program. This will help facilitate course

registration and progression through the program. Please consult with the department regarding course selection, as many courses are not offered every year.

Some ARTH courses may be used in lieu of ART courses. Students are strongly encouraged to work with an advisor to choose their courses.

- ART 110.3 Art Today Ideas and Practices
- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation
- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

Choose two of the following (6 -12 credit units):

- ART 111.6 Painting I Foundation
- ART 124.3 Foundation in Painting I
- ART 125.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I

Choose 45 - 21 credit units from the following:

- 100-level, 200-Level, 300-Level or 400-Level ART Courses
- INTS 111.3 Design and Society

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing**

- ART 112.6 Drawing I Foundation
- ART 220.3 Drawing and Related Work II A
- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A

- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III

#### **Sculpture**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

# **Photography**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III

- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6

Choose 30 senior credit units from the following:

- ART 340.3
- ARTH 200-Level, 300-Level, 400-Level
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- HIST 308.6 Rome Building and Living in the Ancient City
- WGST 324.3 Rebels with a Cause Feminism and the Visual Arts

Rationale: See Studio Art BFA above. ART 340 is moribund and there are no plans to offer it again.

# Minor program revisions

#### **Minor in Studio Art**

Replace 6 credit unit courses with the new 3 credit versions (see course splits below), remove deleted courses and add new/current ones, and add INTS 111 as studio course option. Remove ART 340.

#### Studio Art - Minor

# Requirements (24 credit units)

- ART 110.3 Art Today Ideas and Practices
- ARTH 120.3 Art and Visual Culture I
- ARTH 121.3 Art and Visual Culture II

Choose **15 credit units** ART courses such that courses are selected from a minimum of 2 of the following areas:

#### **Painting**

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I
- ART 123.3 Foundation in Painting II
- ART 222.3 Painting and Related Work II A
- ART 223.3 Painting and Related Work II B
- ART 322.3 Painting and Related Work III A
- ART 323.3 Painting and Related Work III B
- ART 472.3 Painting and Related Work IV A
- ART 473.3 Painting and Related Work IV B
- ART 484.3 Special Studies Painting and Related Work I A
- ART 485.3 Special Studies Painting and Related Work I B
- ART 486.3 Special Studies Painting and Related Work II A
- ART 487.3 Special Studies Painting and Related Work II B

#### **Drawing**

- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 220.3 Drawing and Related Work II A

- ART 221.3 Drawing and Related Work II B
- ART 320.3 Drawing and Related Work III A
- ART 321.3 Drawing and Related Work III B
- ART 470.3 Drawing and Related Work IV A
- ART 471.3 Drawing and Related Work IV B
- ART 480.3 Special Studies Drawing and Related Work I A
- ART 481.3 Special Studies Drawing and Related Work I B
- ART 482.3 Special Studies Drawing and Related Work II A
- ART 483.3 Special Studies Drawing and Related Work II B

#### **Printmaking**

- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 251.3 Intermediate Printmaking
- ART 326.3 Printmaking III A
- ART 327.3 Printmaking III B
- ART 423.6
- ART 433.6
- ART 476.3 Printmaking IV A
- ART 477.3 Printmaking IV B

#### **Digital and Integrated Practice**

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3 Video Art and Sound III
- ART 461.3 Animation and Digital Space III
- INTS 111.3 Design and Society

#### Sculpture

- ART 136.3 Digital and Integrated Practice I Foundation
- ART 141.3 Sculpture I Foundation
- ART 241.3 Sculpture and Related Work II A
- ART 242.3 Sculpture and Related Work II B
- ART 341.3 Sculpture and Related Work III A
- ART 342.3 Sculpture and Related Work III B
- ART 441.3 Sculpture and Related Work A
- ART 442.3 Sculpture and Related Work B

#### **Photography**

- ART 161.3 Foundation in Photography I
- ART 216.6 Photography II
- ART 235.3 Digital Imagery
- ART 316.6 Photography III
- ART 416.6 Photography IV
- ART 426.6 Special Studies Photography I
- ART 436.6
- ART 217.3 Photography II
- ART 317.3 Photography III A
- ART 318.3 Photography III B
- ART 417.3 Photography IV A
- ART 418.3 Photography IV B

Rationale: See Studio Art program revisions above.

# New course(s):

#### ART 217.3 Photography II

1/2 (3L) This course is designed to allow students continual development in the creative language of photography both expressive and technical building on skills learned in ART 161. Theory and practical applications will be approached through assigned projects and independent work.

Prerequisite(s): ART 161.3

Note: Photography students must provide some photographic materials. Costs in addition to tuition may apply to this course. Students with credit for ART 216.6 may not take ART 217.3 for credit.

Instructor(s): Jennifer Crane, sessional lecturers

Rationale: ART 217.3 will replace ART 216.6 (proposed for deletion below). The switch to a 3 credit unit course will better fit the scheduling needs of students and increase flexibility in course offerings.

#### Course deletion(s):

#### ART 216.6 Photography II

Rationale: This 6 credit unit course is being replaced by a 3 credit unit course, ART 217.3 (proposed above).

ART 426.3 Special Studies Photography I

ART 480.3 Special Studies Drawing and Related Work I A

ART 481.3 Special Studies Drawing and Related Work I B

ART 482.3 Special Studies Drawing and Related Work II A

ART 483.3 Special Studies Drawing and Related Work II B

ART 484.3 Special Studies Painting and Related Work I A

ART 485.3 Special Studies Painting and Related Work I B

ART 486.3 Special Studies Painting and Related Work II A

ART 487.3 Special Studies Painting and Related Work II B

Rationale: These courses are no longer needed as ART 450-453, approved for 2022-23, allow students to take additional advanced content in any one or more than one studio area.

#### Minor course revisions

# ART 236.3 Digital and Integrated Practice II A

Prerequisite change:

Current prerequisite(s): 3 credit units 100-level ART courses (excluding ART 110.3) or permission of the instructor.

New prerequisite(s): 3 credit units 100-level ART courses or permission of the instructor.

Rationale: There is no academic reason to exclude ART 110 as a prerequisite option for this course.

## ART 342.3 Sculpture and Related Work III B

Prerequisite change:

Current prerequisite(s): ART 341.3

New prerequisite(s): ART 241.3 and ART 242.3

Rationale: The senior sculpture courses at each level are now taught so that they can be taken in any order, creating more flexibility for students. This change will ensure that students have both 200-level courses before moving to the 300-level.

#### ART 441.3 Sculpture and Related Work A

Prerequisite change:

Current prerequisite(s): ART 342.3

New prerequisite(s): ART 341.3 and ART 342.3

Rationale: The senior sculpture courses at each level are now taught so that they can be taken in any order, creating more flexibility for students. This change will ensure that students have both 300-level courses before moving to the 400-level.

#### ART 442.3 Sculpture and Related Work B

Prerequisite change:

Current prerequisite(s): ART 441.3 or permission of the instructor.

New prerequisite(s): ART 341.3 and ART 342.3

Rationale: See ART 441

# **Toxicology**

### Minor program revisions

# **Bachelor of Science Honours and Four-year in Toxicology**

- 1. Add TOX 220.3 Toxicology in Practice as a required course under C4 Major Requirements
- 2. Add BIOL 226.3 Genes to Genomics as a required course under C4 Major Requirements, and remove the "Choose 3 credit units" from ANBI 420 and BIOL 226 under C4 Major Requirements.
- 3. Reduce "Choose 21 credit units" to 18 credits units of toxicology courses under C4 Major Requirements and add ANBI 420.3 Comparative Animal Endocrinology to the list.
- 4. In the Suggested Sequence of Courses add BIOL 226.3 and TOX 220.3 to, and remove TOX 200 from, Year 2, remove 3 credit units from ANBI 420.3 Comparative Animal Endocrinology or BIOL 226.3 Genes to Genomics in Year 2 and Year 3, and add TOX 405.3 21st Century Methods in Toxicology to the 15 credit units of toxicology courses in Year 4.

Bachelor of Science Honours (B.Sc. Honours) - Toxicology
Bachelor of Science Four-year (B.Sc. Four-year) - Toxicology
C4 Major Requirement (57 credit units)

**Note**: Students are strongly encouraged to consult the undergraduate academic advisor in Toxicology on course selection early in their program, to receive assistance in choosing an area of focus.

- BIOL 226.3 Genes to Genomics
- BMSC 220.3 Cell Biology
- BMSC 200.3 Biomolecules (formerly BIOC 200.3)
- CHEM 250.3 Introduction to Organic Chemistry
- **CHEM 375.3** Environmental Chemistry
- TOX 220.3 Toxicology in Practice
- TOX 300.3 General Principles of Toxicology (formerly VBMS 300)
- TOX 301.3 Environmental Toxicology
- <u>TOX 400.3</u> Quantitative Toxicology
- TOX 490.0 Toxicology Seminar

#### Choose 3 credit units from the following:

- BIOL 226.3 Genes to Genomics (formerly BIOL 211)
- ANBI 420.3 Comparative Animal Endocrinology

#### Choose 6 credit units from the following:

- <u>BIOL 224.3</u> Animal Body Systems and <u>BIOL 317.3</u> Fundamentals of Animal Physiology
- BMSC 207.3 Human Body Systems I and BMSC 208.3 Human Body Systems II

#### Choose 3 credit units from the following:

- BIOL 228.3 An Introduction to Ecology and Ecosystems (formerly BIOL 253)
- PLSC 213.3 Principles of Plant Ecology

#### Choose 3 credit units from the following:

- BIOL 222.3 The Living Plant
- BIOL 373.3 Community Ecology
- BMSC 240.3 Laboratory Techniques

#### Choose 21 18 credit units from the following:

<u>TOX 480.3</u> Toxicology Research and <u>TOX 481.6</u> Toxicology Research are only open to Honours students in the fourth year of their program, unless special permission has been received from the Toxicology Academic Advisor. <u>TOX 461.3</u> Applied Toxicology is recommended for students wishing to pursue graduate studies in toxicology.

- 200-Level, 300-Level or 400-Level TOX Courses
- ANBI 420.3 Comparative Animal Endocrinology
- BIOL 475.3 Ecological Toxicology
- EVSC 420.3 (formerly SLSC 420)
- EVSC 421.3 Contaminated Site Management and Remediation
- **GEOG 386.3** Environmental Impact Assessment

# **Suggested Sequence of Courses**

#### Year 1 Year 2

- BIOL 224.3 Animal Body Systems
- BIOL 226.3 Genes to Genomics
- BMSC 200.3 Biomolecules
- BMSC 220.3 Cell Biology
- <u>TOX 200.3</u> Poisons and Pollutants
- <u>TOX 220.3</u> Toxicology in Practice
- 6 credit units of Physics courses
- 3 credit units from <u>ANBI 420.3</u> Comparative Animal Endocrinology or <u>BIOL 226.3</u> Genes to Genomics, or 3 credit units from <u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems or <u>PLSC 213.3</u> Principles of Plant Ecology
- 3 credit units to fulfill Program Type C requirements
- Electives to make a total of 30 credit units

## Year 3

- <u>BIOL 317.3</u> Fundamentals of Animal Physiology (if <u>BIOL 224.3</u> Animal Body Systems was taken in Year 2)
- CHEM 375.3 Environmental Chemistry
- TOX 300.3 General Principles of Toxicology (formerly VBMS 300)
- TOX 301.3 Environmental Toxicology
- 3 credit units from the toxicology list

- 3 credit units from <u>BIOL 222.3</u> The Living Plant, <u>BIOL 373.3</u> Community Ecology or <u>BMSC 240.3</u> Laboratory Techniques
- Remaining 3 credit units from <u>ANBI 420.3</u> Comparative Animal Endocrinology or <u>BIOL</u>
   <u>226.3</u> Genes to Genomics, or 3 credit units from <u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems or <u>PLSC 213.3</u> Principles of Plant Ecology
- 3 credit units from <u>STAT 245.3</u> Introduction to Statistical Methods, <u>STAT 246.3</u> Introduction to Biostatistics, or <u>PLSC 214.3</u> Statistical Methods
- 6 credit units to fulfill Program Type C requirements
- Electives to make a total of 30 credit units

#### Year 4

- TOX 400.3 Quantitative Toxicology
- TOX 490.0 Toxicology Seminar (September to April)
- 3 credit units to fulfill Program Type C requirements
- electives to make a total of 30 credit units
- Choose 15 credit units from the following:
  - o TOX 302.3 Introduction to Aquatic Toxicology
  - o TOX 310.3 Radiation and Radionuclide Toxicology
  - TOX 320.3
  - o TOX 321.3 Risk Assessment and Regulatory Toxicology
  - o TOX 402.3 Systemic Toxicology
  - o TOX 403.3 Biotoxins
  - o TOX 405.3 21st Century Methods in Toxicology
  - o TOX 412.3 Toxicology of Industrial Pollutants
  - TOX 461.3 Applied Toxicology
  - o TOX 470.3
  - o TOX 480.3 Toxicology Research or TOX 481.6 Toxicology Research T
  - TOX 498.3 Special Topics
  - BIOL 475.3 Ecological Toxicology
  - o **GEOG 386.3** Environmental Impact Assessment
  - o EVSC 420.3
  - EVSC 421.3 Contaminated Site Management and Remediation
  - ANBI 420.3 Comparative Animal Endocrinology

#### Rationale:

- 1. TOX 220.3 Toxicology in Practice (proposed below) will provide a 200-level entry to the major and introduce students to both content and skills that are needed in the program.
- 2. BIOL 226 is being recognized as a necessary course for this major.
- 3. The credit units required from the restricted electives are being adjusted to account for the two revisions above, and ANBI 420 is moved to the list to account for its removal above.
- 4. The Suggested Sequence of Courses is updated to align with the proposed revisions.

#### New course(s):

#### **TOX 220.3 Toxicology in Practice**

2 (3L-4P) Toxicology in Practice is designed to provide students with hands-on and experiential learning opportunities in some of the most common test methods and techniques used by researchers and risk assessors to evaluate the effects of toxic substances on biological systems. Students will conduct experiments and apply foundational toxicology and risk assessment concepts and practice experimental design, data collection, analysis, and interpretation. Key concepts are emphasized through application of these methods to contemporary real-world examples.

Prerequisite(s): BIOL 120.3 and CHEM 112.3.

Note: TOX 110 is recommended. Instructor(s): Markus Brinkmann

Rationale: This course will provide a 200-level entry to the major and will introduce students to both content and skills that are needed in the program.

#### Minor course revisions TOX 200.3 Poisons and Pollutants

New course number: TOX 110.3

Prerequisite change:

Current prerequisite(s): 18 credit units university courses

New prerequisite(s): none

New Note: Students may not have more than 75 credit units of university courses before registering in this course. Students with credit for TOX 200 or TOX 220 may not take this course for credit. Rationale: The existing 200 level course is being over used by senior students to fill a natural science requirement. This prevents to course from acting as an introduction to toxicology as it was intended to be. To combat this, it is proposed that the course be renumbered to the 100-level, and that students be restricted from registering too far into their university studies.

#### **Urban Design**

Minor program revision
Certificate in Urban Design

Replace ART 216.6 with ART 217.3.

**Urban Design - Certificate** 

Requirements (48 -21 18 credit units)

- INTS 111.3 Design and Society
- PLAN 446.3 Advanced Urban Design Studio

#### Choose one course from the following:

- ART 141.3 Sculpture I Foundation
- ART 161.3 Foundation in Photography I
- ART 230.3 Video Art and Sound I
- ART 231.3 Animation and Digital Space I
- ART 235.3 Digital Imagery
- ART 236.3 Digital and Integrated Practice II A

#### Choose one course from the following:

- ARTH 329.3
- ART 216.6 Photography II
- ART 217.3 Photography II
- ART 330.3 Video Art and Sound II
- ART 331.3 Animation and Digital Space II
- ART 338.3 Digital and Integrated Practice III A
- ART 339.3 Digital and Integrated Practice III B
- ART 350.3 Hands on Practice of Historical Media

#### Choose two courses from the following:

- GEOG 240.3 Sustainable Cities and Regions
- PLAN 341.3 Urban Planning

PLAN 346.3 Introduction to Urban Design

Rationale: ART 216.6 is being replaced with ART 217.3. See proposals above.

The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge and are now submitted to the University Course Challenge for information.

#### **Advanced Studio Art**

#### Minor program revisions Certificate in Advanced Studio Art

Replace 6 credit unit courses with the new 3 credit versions (see course splits below).

#### **Advanced Studio Art - Certificate**

#### **Admission Requirements**

Completion of the Intermediate Studio Art Certificate or 42 credit units of 100- or 200-level ART courses including ART 110, ART 112, ART 124, ART 125, ART 141, and 6 credit units from: ARTH 120, ARTH 121, ARTH 253 or ARTH 255. Courses used to meet the requirements for the Foundations of Studio Art or the Intermediate

Studio Art Certificate may not be used to meet the requirements of this program.

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#### **College Policies**

**Registration & Course Selection** 

>Prerequisites
>First-Year Students
>Upper-Year Students
>Late Enrolment Policy

Late enrolment overrides are intended for students who experience an extenuating circumstance that prevents them from completing their registration by the class registration deadlines established by the university.

To be eligible for a late enrolment request, students must satisfy all the following criteria:

- 1) completion of at least 30 credit units,
- 2) a cumulative weighted average (CWA) of at least 60%, and
- 3) approval of the instructor.

Deadlines for submitting late enrolment requests for Arts and Science courses are:

- Fall or Winter Term classes: No later than 21 days following the first day of class.
- Spring or Summer Term classes (full term): No later than 5 days following the first day of classes
- Spring or Summer Quarter classes: No later than 3 days following the first day of classes.

Late submissions will not be considered.

Eligible requests will be considered on a case-by-case basis and approval will be at the discretion of the College of Arts & Science.

# >Maximum Number of Credit Units>Junior and Senior Courses

Rationale: Adding this policy to the Catalogue will ensure that college and university-level staff are able to access it and be expected to follow it when adding students to class sections after the registration deadline. The purpose of limiting late enrolment is to ensure that students are not registered in classes so late that there is no reasonable expectation of success.

#### **Program Requirement (Course) Substitution Policy**

This policy details the Arts & Science college-level rules for accepting a different course in lieu of one that is listed in program requirements:

Course substitutions are only offered when a required course has been closed or when a required course is not available in a student's final year of study. Requests for course substitutions will be assessed on a case-by-case basis. This policy does not apply to Statistics courses, which are covered separately by the Statistics Course Regulations.

All course substitution requests must be submitted by the appropriate faculty member with a rationale outlining the reasoning surrounding the equality of the two courses in meeting the requirements of the program. Substituted courses must be closely related (subject, topic, and/or level) to the original course. All requests must be signed off by both the student and the department head and submitted to the Undergraduate Student Office one week prior to the registration deadline for the term in which the substitute course is to be taken.

Rationale: This policy will follow the "Repeating Courses" policy in the Arts & Science Academic Policies section of the Catalogue. There have been procedures in place for making course substitutions as far back as anyone can remember, but the policy has never been officially published in the Catalogue or on a website. Making the policy available will help faculty, staff and students better understand the criteria for approving a course substitution.

# **Statistics Course Regulations**

Courses in statistics eligible for credit in the College of Arts and Science are to be selected as follows:

>Students may choose up to 9 credit units from the following: Only one of the following:

Students may at most take 3 credit units from list b for credit in an Arts and Science program.

a. PLSC 214.3, GE 210.3, STAT 242.3, STAT 245.3 STAT 246.3

or only one from each of b) and c) - courses from b) are prerequisites for courses in c)

b. COMM 104.3, (half of) ECON 204.6, EPSY 441.3, GEOG 301.3 (no longer offered), PSY 233.3, SOC 225.3, STAT 244.3,

c. COMM 207.3, (half of) ECON 204.6, PSY 234.3, SOC 325.3

<del>-or</del>

d. ECON 204.6 (No longer offered. Students who completed ECON 204.6 may not take a course from a), b), or c).)

Students who take a course from a) are not allowed to receive credit for a course from b), c), or d). Students who take a course from b) and subsequently take a course from a) will lose credit for the course from b).

Some courses in the lists are equivalent to each other and in such cases students will only be able to take one of the equivalent courses for credit. See the specific course entries for more information:

Students must check the requirements for specific majors to ensure that they select a course which may be counted in that major.

#### NOTES:

For the B.A. programs 2019-20 and earlier, STAT 242.3, STAT 245.3 or STAT 246.3 may be used in Distribution Requirements 1 to 5 in exceptional cases, but no other course listed in a) to c) d) may be used in these Distribution Requirements. Students must contact the Undergraduate Student Office for further information.

For B.Sc. programs from 2005-2006 to 2019-20, only PLSC 214.3, STAT 245.3, STAT 246.3 can be used in Requirement #4. Students must check the requirements for specific majors to see which courses are accepted in that major.

Transfer credit of Jr. STAT .3 is not considered to be equivalent to any of the courses in the lists. If you feel your course should have transferred as one of the listed courses, please contact the home department of the identified course. will only be considered equivalent to courses listed in b).

#### ADDITIONAL INFORMATION:

STAT 103.3 and STAT 241.3 are courses in probability theory so are not listed above. Students may receive credit for these courses in addition to any of the courses listed above.

Students with credit for ECON 204.6 may not take another course from b), but may take one additional course from a) or c).

If STAT 103.3 is taken first, credit will be granted for any one of the courses from a) or c).

Credit for STAT 103.3 will not be granted if it is taken concurrently with or after any course from a) or c).

STAT 103.3 may be taken for credit before, after, or concurrently with any course from b).

If STAT 103.3 is taken first, followed by ECON 204.6 students will only receive 3 credit units of ECON 204.6.

#### STAT 241.3 will receive credit in addition to any of the courses listed in a) to d).

Credit will be granted for both STAT 103.3 and STAT 241.3 only if STAT 103.3 is taken first. Credit will not be granted for STAT 103.3 if it is taken concurrently with or after STAT 241.3.

Credit will be granted for both STAT 103.3 and STAT 242.3 only if STAT 103.3 is taken first. Credit will not be granted for STAT 103.3 if it is taken concurrently with or after STAT 242.3.

Rationale: The College of Arts & Science Statistics Course Regulations appear in the Course and Program Catalogue as far back as 1990-91, and were intended to identify equivalences between "statistics" courses offered university-wide, noting that students could not receive credit for more than one of the listed "introductory courses/sequences." The point of the regulations at that time were to prevent students from receiving credit for more than one course/sequence of courses which were considered to cover the "same" statistics material. The college still has regulations governing the combinations of statistics courses for which students may receive credit. The list of courses has grown, but still includes courses from other colleges as well.

What has changed over the years is the increased number of students who pursue more than one undergraduate degree, and our understanding that the different courses listed are not all equally appropriate to each different program. For example, the Department of Psychology and Health Studies finds that the combination of PSY 233 and 234 better prepares their students for research courses in Psychology, as compared to courses such as PLSC 214 or STAT 245. This is logical, given that the examples and applications given in the PSY courses are all directly related to this discipline, and the students in these courses have a common background of 100-level PSY courses. Similarly, the College of Agriculture and Bioresources has a significant preference for PLSC 214, STAT 245, or STAT 246, as those courses provide the content in a way that works best for their programs.

Student Advisors in Arts & Science have long had problems with enforcing the current regulations, as the patchwork of equivalences, mutual exclusions, and no official relationship between courses (see changes to listed courses in this submission) allows students to register in more than one course on the same or another list. It is sometimes the case that these errors are not discovered until a student applies to graduate, and then must be told that they are short credit to fulfill the degree requirements. Advisors also note that students report that the classes do not cover the same specific topics, and therefore each of the mix-and-match options do not provide the same level of preparation for a particular discipline.

This proposal impacts the Colleges of Agriculture and Bioresources, Education, Engineering, and the Edwards School of Business, all of which were consulted. No dissenting opinions were received.

#### **Foundations of Studio Art**

#### Minor program revisions Certificate in Foundations of Studio Art

Replace 6 credit unit courses with the new 3 credit versions (see course splits below).

## Foundations of Studio Art - Certificate

Requirements (24 credit units)

- ART 110.3 Art Today Ideas and Practices
- ART 112.6 Drawing I Foundation
- ART 124.3 Foundation in Drawing I
- ART 125.3 Foundation in Drawing II
- ART 141.3 Sculpture I Foundation

Choose **12 credit units** from the following:

- ART 111.6 Painting I Foundation
- ART 122.3 Foundation in Painting I

- ART 123.3 Foundation in Painting II
- ART 136.3 Digital and Integrated Practice I Foundation
- ART 151.3 Introductory Printmaking I
- ART 152.3 Introductory Printmaking II
- ART 161.3 Foundation in Photography I

#### Studio Art

#### Course split(s):

# **ART 111.6 Foundation in Painting**

into

#### ART 122.3 Foundation in Painting I

1 (3L) Explores the principles and elements of the language of art as related to the process of painting. Discussion and exposure to a variety of tools, materials, and media will be included. Historical reference to stylistic changes and various aesthetic concepts will be explored.

Note: Painting students must provide their own painting materials. Students with credit for ART 111.6 may not take this course for credit.

Instructor(s): Allyson Glenn, Cameron Forbes, Ali Norlen, sessional lecturers

and

#### ART 123.3 Foundation in Painting II

2 (3L) Continues to explore principles and elements of the language of art as related to the process of painting. Discussion and exposure to a variety of tools, materials, and media will be included. Historical reference to stylistic changes and various aesthetic concepts will be explored.

Prerequisite(s): ART 122.3

Note: Painting students must provide their own painting materials. Students with credit for ART 111.6 may not take this course for credit.

Instructor(s): Allyson Glenn; Cameron Forbes; Ali Norlen; sessional lecturers

Rationale: The Department of Art and Art History is continuing work to split or replace 6 credit unit courses to improve the registration process for students and to allow for greater flexibility.

# ART 112.6 Drawing I Foundation

into

#### ART 124.3 Foundation in Drawing I

1 (3L) Introduction to the formal and creative language of drawing. The course emphasizes the development of drawing skills and identification of concepts and methods as they relate to visual perception and expression.

Note: Drawing students must provide their own drawing materials. Students with credit for ART 112.6 may not take this course for credit.

Instructor(s): Allyson Glenn, Cameron Forbes, Ali Norlen, sessional lecturers

and

#### **ART 125.3 Foundation in Painting II**

2 (3L) Continues the introduction to the formal and creative language of drawing began in Foundations of Drawing I. The course emphasizes the development of drawing skills and identification of concepts and methods as they relate to visual perception and expression.

Prerequisite(s): ART 124.3

Note: Drawing students must provide their own drawing materials. Students with credit for ART 112.6 may not take this course for credit.

Instructor(s): Allyson Glenn; Cameron Forbes; Ali Norlen; sessional lecturers

Rationale: See ART 111 above.

#### ART 316.6 Photography III

into

#### ART 317.3 Photography III A

1 (3L) This course is designed to allow students continual development in the creative language of photography both expressive and technical building on skills learned in previous courses. Theory and practical applications will be approached through assigned projects and independent work. Advanced techniques will be introduced such as large format cameras, advanced editing techniques, alternative processes and mural printing. Students will complete an independent project to present in final class critique.

Prerequisite(s): ART 217.3

Note: Costs in addition to tuition may apply to this course. Students with credit for ART 316.6 may not take this course for credit.

Instructor(s): Jennifer Crane

and

#### ART 318.3 Photography III B

2 (3L) This course is designed to allow students continual development in the creative language of photography both expressive and technical building on skills learned in previous courses. Theory and practical applications will be approached through assigned projects and independent work. Advanced techniques will be introduced such as large format cameras, advanced editing techniques, alternative processes and mural printing. Students will complete an independent project to present in final class critique.

Prerequisite(s): ART 317.3

Note: Costs in addition to tuition may apply to this course. Students with credit for ART 316.6 may not take this course for credit.

Instructor(s): Jennifer Crane Rationale: See ART 111 above.

#### ART 416.6 Photography IV

into

#### ART 417.3 Photography IV A

1 (3L) Continued development in the creative language of photography both expressive and technical. Includes black and white, and colour photography, both chemical and digital. Theory and practical application will be approached through assigned projects and independent work. Students will complete an independent project to present in final class critique.

Prerequisite(s): ART 318.3

Note: Costs in addition to tuition may apply to this course. Students with credit for ART 416.6 may not take this course for credit.

Instructor(s): Jennifer Crane

and

#### ART 418.3 Photography IV B

2 (3L) This course is designed to allow students continual development in the creative language of photography both expressive and technical building on skills learned in previous courses. Theory and practical applications will be approached through assigned projects and independent work. Advanced techniques will be introduced such as large format cameras, advanced editing techniques, alternative processes and mural printing. Students will complete and independent project to present in final class critique.

Prerequisite(s): ART 417.3

Note: Costs in addition to tuition may apply to this course. Students with credit for ART 416.6 may not take this course for credit.

Instructor(s): Jennifer Crane Rationale: See ART 111 above.

#### **Psychology**

#### Minor course revisions

# **PSY 423.3 Disability Discourses and Social Practices**

Prerequisite change:

Current prerequisite(s): 6 credit units of 300-level Psychology.

New prerequisite(s): 3 credit units of 300-level Psychology. Restricted to Honours students in Health Studies, Linguistics and Psychology.

Rationale: The Department of Psychology and Health Studies has difficulty each year in finding spaces for Honours students to take the courses that they need to graduate. Thus, the prerequisites are being reduced to allow students to take more of the courses offered in a given year, and the enrollment in some 400-level courses will be restricted to Honours students to ensure that this group can be accommodated. Some other 400-level PSY courses will be offered as larger sections to ensure that space is available to the Four-year majors.

#### PSY 425.3 Advanced Seminar in Group Dynamics and Intergroup Relations

Prerequisite change:

Current prerequisite(s): PSY 225.3; and PSY 226.3 or PSY 325.3.

New prerequisite(s): 3 credit units of 300-level Psychology. Restricted to Honours students in Health

Studies and Psychology.

Rationale: See PSY 423 above.

# PSY 426.3 Advanced Seminar in Intrapersonal and Interpersonal Processes

Prerequisite change:

Current prerequisite(s): PSY 225.3 or PSY 226.3; and PSY 325.3.

New prerequisite(s): 3 credit units of 300-level Psychology. Restricted to Honours students in Health

Studies and Psychology.

Rationale: See PSY 423 above.

#### **PSY 448.3 Advanced Seminar in Neuroscience**

Prerequisite change:

Current prerequisite(s): 6 credit units from PSY 242, 243, 246, 347

New prerequisite(s): 3 credit units from PSY 252.3, PSY 246.3, or PSY 242.3; and 3 credit units of 300-

level Psychology. Restricted to Honours students in Health Studies and Psychology.

Rationale: See PSY 423 above.

#### **Regional and Urban Planning**

#### Minor course revisions

#### PLAN 360.3 Urban Data Analysis and Visualization

Prerequisite change:

Current prerequisite(s): GEOG 222; and one of ECON 211.3, GEOG 302.3, STAT 242.3, STAT 245.3, or STAT 246.3

New prerequisite(s): GEOG 222.3; ECON 211.3; and one of COMM 104.3, EPSE 441.3, GE 210.3, PLSC 214.3. PSY 233.3. SOC 225.3. STAT 242.3. STAT 244.3. STAT 245.3. or STAT 246.3.

Rationale: Students need to have both statistics and background in microeconomics when entering PLAN 360, rather than one or the other. This revision will ensure that students are prepared to be successful in the course.



# College of Education December 2023 University Course Challenge

The curricular revisions listed below were approved by the College of Education Faculty Council on Friday, December 8, 2023 and are now submitted to the University Course Challenge for approval.

Contact: Arvelle Van Dyck (arvelle.vandyck@usask.ca)

- 1. To allow courses approved for the "College of Arts and Science Indigenous Learning Requirements" and "AREC 220.3: History of Indigenous Agriculture in Canada" for:
  - a. inclusion as part of the Indigenous Studies requirements in the External Course Requirements, Social Sciences/Social Studies Teaching Areas, and Indigenous Studies Teaching Areas and to update the catalogue entries to ensure all three sets of requirements are consistent for all Bachelor of Education program routes.
  - b. inclusion as part of the list of courses with Canadian content (Social Sciences/Social Studies Teaching Areas).
- 2. To allow "AREC 220.3: History of Indigenous Agriculture in Canada" as an acceptable course to meet the History requirement of the Social Sciences/Social Studies Teaching Areas.

# **External Course Requirements Indigenous Studies**

Choose 3 credit units of Indigenous Studies

Please Note: not required if Indigenous Studies or Social Studies/Social Sciences is a Teaching Area.

# INDG 107.3: Introduction to Canadian Indigenous Studies is recommended.

- INDG 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 202.3 Anthropology and Indigenous Peoples in Canada
- ANTH 350.3: Introduction to Boreal Forest Archaeology
- AREC 220.3: History of Indigenous Agriculture in Canada
- <u>DRAM 111.3</u> Practicum I Indigenous Performance Methods
- ENG 242.3 Indigenous Storytelling of the Prairies
- ENG 243.3 Introduction to Indigenous Literatures
- ENG 335.3 The Emergence of Indigenous Literatures in Canada
- ENG 338.3 Contemporary North American Indigenous Literatures
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 193.3 History Matters Topics in Canadian History
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- HIST 257.3 The Canadian Prairie to 1905 (may only be used if taken in 2022-23 or later)

- HIST 315.3 Indigenous Health History
- HIST 316.3 History of the Metis in Twentieth Century Prairie Canada
- HIST 366.3 Indigenous Womens Life Stories in Early North America
- HIST 367.3 Early Indigenous North American Diasporas
- HIST 432.3 Turtle Island Stories From Erasure to Empowerment in Early North American Ethnohistories
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History
- KIN 306.3 Introduction to Indigenous Wellness
- <u>LING 114.3</u> Indigenous Languages and Stories: Introduction to the Structure of Language
- LING 253.3 Indigenous Languages of Canada
- PLAN 445.3 Planning with Indigenous Communities
- POLS 222.3 Indigenous Governance and Politics
- POLS 323.3 First Nations Policies and Programs
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 319.3 Indigenous People in Urban Areas
- SOC 341.3 Institutional Racism and Indigenous People

<\*The yellow highlighting above indicates those courses that are not on the College of Arts & Science Indigenous Learning Requirement list or AREC 220.3 offered by the College of Agriculture & Bioresources but are currently part of the Indigenous Studies component for the Social Sciences/Social Studies Teaching Area and the Indigenous Studies Teaching area. >

# Social Sciences/Social Studies Teaching Area

Choose X credit units from the following Indigenous Studies courses:

#### INDG 107.3: Introduction to Canadian Indigenous Studies is recommended.

- INDG 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 202.3 Anthropology and Indigenous Peoples in Canada
- ANTH 350.3: Introduction to Boreal Forest Archaeology
- AREC 220.3: History of Indigenous Agriculture in Canada
- ARTH 323.3
- ARTH 345.3
- <u>DRAM 111.3</u> Practicum I Indigenous Performance Methods
- ENG 242.3 Indigenous Storytelling of the Prairies
- ENG 243.3 Introduction to Indigenous Literatures
- ENG 335.3 The Emergence of Indigenous Literatures in Canada
- ENG 338.3 Contemporary North American Indigenous Literatures
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 193.3 History Matters Topics in Canadian History
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- HIST 257.3 The Canadian Prairie to 1905
- HIST 315.3 Indigenous Health History
- HIST 316.3 History of the Metis in Twentieth Century Prairie Canada
- HIST 366.3 Indigenous Womens Life Stories in Early North America
- HIST 367.3 Early Indigenous North American Diasporas

- <u>HIST 432.3</u> Turtle Island Stories From Erasure to Empowerment in Early North American Ethnohistories
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History
- <u>KIN 306.3</u> Introduction to Indigenous Wellness
- <u>LING 114.3</u> Indigenous Languages and Stories: Introduction to the Structure of Language
- LING 253.3 Indigenous Languages of Canada
- PLAN 445.3 Planning with Indigenous Communities
- POLS 222.3 Indigenous Governance and Politics
- POLS 323.3 First Nations Policies and Programs
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 319.3 Indigenous People in Urban Areas
- SOC 341.3 Institutional Racism and Indigenous People

# **Choose X credit units from the following History courses:**

- HIST 100-Level, 200-Level, 300-Level, 400-Level
- AREC 220.3: History of Indigenous Agriculture in Canada
- <u>INDG 212.3</u> Nehiyaw Tapsinowin Cree Cultural Histories
- INDG 216.3 The Presence of the Past in Contemporary Indigenous Life
- INDG 280.6 Metis History in Western Canada
- INDG 281.3 First Nations History in Western Canada

# **Indigenous Studies Teaching Area**

Choose an additional X credit units from the following Indigenous Studies courses:

- <u>INDG 200-Level, 300-Level, 400-Level</u>
- ANTH 202.3 Anthropology and Indigenous Peoples in Canada
- ANTH 350.3: Introduction to Boreal Forest Archaeology
- AREC 220.3: History of Indigenous Agriculture in Canada
- <u>DRAM 111.3</u> Practicum I Indigenous Performance Methods
- ENG 242.3 Indigenous Storytelling of the Prairies
- ENG 243.3 Introduction to Indigenous Literatures
- ENG 335.3 The Emergence of Indigenous Literatures in Canada
- ENG 338.3 Contemporary North American Indigenous Literatures
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 193.3 History Matters Topics in Canadian History
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- HIST 257.3 The Canadian Prairie to 1905
- HIST 315.3 Indigenous Health History
- HIST 316.3 History of the Metis in Twentieth Century Prairie Canada
- HIST 366.3 Indigenous Womens Life Stories in Early North America
- HIST 367.3 Early Indigenous North American Diasporas
- <u>HIST 432.3</u> Turtle Island Stories From Erasure to Empowerment in Early North American Ethnohistories
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History

- <u>KIN 306.3</u> Introduction to Indigenous Wellness
- <u>LING 114.3</u> Indigenous Languages and Stories: Introduction to the Structure of Language
- LING 253.3 Indigenous Languages of Canada
- PLAN 445.3 Planning with Indigenous Communities
- POLS 222.3 Indigenous Governance and Politics
- POLS 323.3 First Nations Policies and Programs
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 319.3 Indigenous People in Urban Areas
- SOC 341.3 Institutional Racism and Indigenous People
- Students may choose up to 6 credit units of the following:
  - o CREE 100-Level, 200-Level, 300-Level, 400-Level
- Students may choose up to 3 credit units of the following:
  - o ARTH 253.3 Indigenous Art History I
  - o ARTH 255.3 Indigenous Art History II
  - o ARTH 323.3
  - o ARTH 345.3
  - o ARTH 355.3 Contemporary Aboriginal Art I
  - o ARTH 455.3 Contemporary Indigenous Art II

#### **Courses with Canadian Content**

- ANTH courses with Canadian content are:
  - o ANTH 202.3 Anthropology and Indigenous Peoples in Canada
  - o ANTH 350.3: Introduction to Boreal Forest Archaeology
  - ANTH 480.3: Indigenous Peoples and Mental Health Anthropological and Related Perspectives
- AREC courses with Canadian content are:
  - o AREC 220.3: History of Indigenous Agriculture in Canada
- DRAM courses with Canadian content are:
  - DRAM 111.3 Practicum I Indigenous Performance Methods
- ECON course with Canadian content is:
  - o ECON 231.3 Co operatives
- ENG courses with Canadian content are:
  - o ENG 242.3 Indigenous Storytelling of the Prairies
  - ENG 243.3 Introduction to Indigenous Literatures
  - ENG 335.3 The Emergence of Indigenous Literatures in Canada
  - ENG 338.3 Contemporary North American Indigenous Literatures
- GEOG courses with Canadian content are:

- o GEOG 202.3 Regional Geography of Canada
- o GEOG 204.3 Geography of the Prairie Region
- o GEOG 381.3 Development in the Canadian North Issues and Challenges
- o GEOG 386.3 Environmental Impact Assessment
- o GEOG 465.3 Environment and Health in Indigenous Communities
- o PLAN 342.3
- o PLAN 343.3 Legal Issues in Planning
- o PLAN 442.3 Regional Planning
- o PLAN 445.3 Planning with Indigenous Communities

#### • HIST courses with Canadian content are:

- HIST 100-Level (only those sections containing Canadian content will be considered; consult an academic advisor)
- HIST 193.3 History Matters Topics in Canadian History
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- o HIST 255.3 Canadian History from the Pre Contact Period to 1867
- o HIST 256.3 Post Confederation Canada 1867 to the Present
- HIST 257.3 The Canadian Prairie to 1905
- o HIST 258.3 The Canadian Prairies since 1905
- o HIST 259.3 Canadian Women from Pre Contact Period to 1918
- o HIST 260.3 Canadian Women History from 1919 to Present
- o HIST 266.3: History Wars Issues in Native Newcomer Relations
- o HIST 310.3
- o HIST 315.3 Indigenous Health History
- o <u>HIST 316.3</u> History of the Metis in Twentieth Century Prairie Canada
- HIST 350.3 The War That Shaped a Continent The Seven Years War and the Conquest of Canada
- o HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- o HIST 363.3
- o HIST 365.3 Recipes for a Nation Food History in Canada
- o HIST 366.3 Indigenous Womens Life Stories in Early North America
- o HIST 367.3 Early Indigenous North American Diasporas
- HIST 370.3 Violence Smuggling and Vice Borderlands and the Gaps of Power
- o HIST 410.3 France in the Americas 1500 to 1803 In Search of Empire
- o HIST 415.3
- o HIST 430.3 Gender and Sexuality in Western Canada
- HIST 432.3 Turtle Island Stories From Erasure to Empowerment in Early North American Ethnohistories
- HIST 466.3
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History

#### • KIN courses with Canadian content are:

- o KIN 306.3 Introduction to Indigenous Wellness
- LING courses with Canadian content are:
  - <u>LING 114.3</u> Indigenous Languages and Stories: Introduction to the Structure of Language

### LING 253.3 Indigenous Languages of Canada

• POLS courses with Canadian content are:

- o POLS 204.3 Canadian Political Institutions
- POLS 205.3 Canadian Politics and Society
- o POLS 222.3 Indigenous Governance and Politics
- POLS 225.3 Canadian Public Administration and Administrative Law
- o POLS 226.3 Canadian Public Policy
- o POLS 303.3 Public Law and the Courts in Canada
- o POLS 304.3 Democracy and the Charter of Rights and Freedoms
- o POLS 305.3 Provincial Politics and Policy
- POLS 306.3 Local Governance and Policy
- o POLS 307.3
- o POLS 323.3 First Nations Policies and Programs
- o POLS 349.3 Multiculturalism and Immigration in Canada
- o POLS 375.3 Canadian Foreign Policy in the Global Era
- o POLS 404.3 Canadian Federalism and Intergovernmental Relations
- POLS 405.3 Canadian Elections and Political Parties
- POLS 422.3 Indigenous Governance and Self Determined Sustainable Development
- o POLS 425.3
- SOC courses with Canadian content are:
  - SOC 203.3 Race and Ethnic Relations in Canada
  - o SOC 204.3 Rural Sociology and Rural Development
  - o SOC 219.3 Indigenous Peoples and Justice in Canada
  - o SOC 227.6 Critical Issues in Canadian Society
  - o SOC 244.3 Sociology of Mass Media in Canada
  - o SOC 246.3 Ideology and Mass Communication
  - o SOC 319.3 Indigenous People in Urban Areas
  - o SOC 341.3 Institutional Racism and Indigenous People

Please Note: all INDG courses are acceptable, except <u>INDG 221.3</u> Indigenous Food Sovereignty and INDG 272.3

### 3. Revisions to the IETC program

- a) To allow "EADM 303.3: Education in Society Structures Systems and Stakeholders" as an option for the "EADM 203.3: Professional and Organizational Context of Saskatchewan Schools" requirement.
- b) To allow "ECUR 325.3: Relational Curriculum Making in the Secondary Context" as an option for "ECUR 400.3: Curriculum and Instruction for Saskatchewan Schools" requirement.

**Internationally Educated Teachers Certificate (IETC) Program Requirements (18 credit units)** 

- <u>EADM 203.3</u> Professional and Organizational Context of Saskatchewan Schools or EADM 303.3 Education in Society Structures Systems and Stakeholders
- <u>ECUR 400.3</u> Curriculum and Instruction for Saskatchewan Schools or ECUR 325.3 Relational Curriculum Making in the Secondary Context
- <u>EFDT 265.3</u> Foundations for First Nations Metis and Inuit Teaching and Learning or ECUR 265.3 Teaching for Reconciliation in the K to 12 Curricula
- EPSE 390.3 Exceptional Learners
- EDST 215.6 Internationally Educated Teachers Field Experience

# 4. <u>Inclusion of Kinesiology Activity Courses and additional Kinesiology course</u> recommended

Rationale: These changes are a result of a consultation with our colleagues in the College of Kinesiology. With the move to 3 credit units, Kinesiology activity courses are now more complex and include theory and the "rules" behind the activities. This change also allows for more KIN course options for students and enrolling in an Athletics, Combatives, Aquatics, or Rhythm and Dance class could be beneficial to future teachers. Our colleagues in the College of Kinesiology also suggested KIN 320.3: Physical Growth and Development of Children would be a good fit for future Physical Educators.

- a) To allow Kinesiology Activity classes to be used to meet the requirements for the Physical Education Teaching Areas for the Bachelor of Education program routes.
- b) To allow Kinesiology Activity courses for the External Course Requirements (3 credit units of Kinesiology) for all B.Ed. program routes at the Early/Middle Years level.
- c) To recommend "KIN 320.3: Physical Growth and Development of Children" as part of the Physical Education Teaching Area for the Bachelor of Education program routes.

# Early/Middle Years – Teaching Area 1

**Physical Education** 

Choose 3 credit units from the following junior level Kinesiology courses:

• <u>KIN 146.3</u> Physical Activity and School Aged Children and Youth

#### **Choose 15 credit units from the following Kinesiology courses:**

- KIN 150.3 How Body Moves I, KIN 240.3 Pedagogy in Physical Activity Setting I Theory, KIN 281.3 Fitness Foundations for Life, KIN 320.3: Physical Growth and Development of Children, and/or KIN 341.3 Pedagogy in Physical Activity Setting II Practice are recommended
- KIN 100-Level, 200-Level, 300-Level, 400-Level

Kinesiology Activity courses may <u>not</u> be used to meet this requirement, including: <u>KIN 310.3</u>

Rhythm and Dance Movement Fundamentals, <u>KIN 311.3</u> Aquatics, <u>KIN 324.3</u> Athletics, and <u>KIN 325.3</u> Combatives.

# Early/Middle Years – Teaching Area 2

**Physical Education** 

Choose 3 credit units from the following junior level Kinesiology courses:

• KIN 146.3 Physical Activity and School Aged Children and Youth

#### **Choose 9 credit units from the following Kinesiology courses:**

- <u>KIN 150.3</u> How Body Moves I, <u>KIN 240.3</u> Pedagogy in Physical Activity Setting I Theory, <u>KIN 281.3</u> Fitness Foundations for Life, <u>KIN 320.3</u>: Physical Growth and Development of Children, and/or <u>KIN 341.3</u> Pedagogy in Physical Activity Setting II Practice are recommended.
- KIN 100-Level, 200-Level, 300-Level, 400-Level

Kinesiology Activity courses may <u>not</u> be used to meet this requirement, including: <u>KIN 310.3</u>
Rhythm and Dance Movement Fundamentals, <u>KIN 311.3</u> Aquatics, <u>KIN 324.3</u> Athletics, and <u>KIN 325.3</u> Combatives.

# Secondary - Teaching Area 1

To become a secondary physical education teacher, see the <u>five-year combined B.Sc.(Kin.)/B.Ed.</u> program.

Graduates of the B.Sc. in Kinesiology may apply to the B.Ed. program using their best 24 credit units of 3 or 6 credit unit Kinesiology courses to comprise their first teaching area. In order to hold a teaching area of Physical Education at the Secondary level, students must have a B.Sc. Kinesiology degree.

• KIN — 100-Level, 200-Level, 300-Level, 400-Level

Kinesiology Activity courses may <u>not</u> be used to meet this requirement, including: <u>KIN 310.3</u>

Rhythm and Dance Movement Fundamentals, <u>KIN 311.3</u> Aquatics, <u>KIN 324.3</u> Athletics, and <u>KIN 325.3</u> Combatives.

# External Requirement – Early/Middle Years Kinesiology

Choose 3 credit units of Kinesiology

Please Note: not required if Physical Education is a Teaching Area.

• KIN — 100-Level, 200-Level, 300-Level, 400-Level

**Recommended Course:** <u>KIN 146.3</u> Physical Activity and School Aged Children and Youth Physical Activity and School Aged Children and Youth

Kinesiology Activity courses may <u>not</u> be used to meet this requirement, including: <u>KIN 310.3</u> Rhythm and Dance Movement Fundamentals, <u>KIN 311.3</u> Aquatics, <u>KIN 324.3</u> Athletics, and <u>KIN 325.3</u> Combatives.

### 5. Changes to ARCH (Archaeology) courses - subject codes and numbers

Rationale: The Department of Anthropology in the College of Arts and Science currently offers both Anthropology (ANTH) and Archaeology (ARCH) courses. Effective 2024-2025, all ARCH courses will change to the ANTH subject code and some of the ARCH courses will also have new numbers. Both lists include moribund courses and new courses that will be offered in 2024-2025. Our colleagues in the College of Arts and Science have recommended including the moribund courses in case we get a student who completed the course in a previous year or the department chooses to bring it back.

To update the Science and Social Sciences/Social Studies Teaching Area requirements of the Bachelor of Education program routes to reflect the change in course subject codes from ARCH (Archaeology) to ANTH (Anthropology) and the course numbers related thereto.

# Early/Middle Years - Teaching Area 1 Science

Please Note: <u>PLSC 214.3</u> Statistical Methods cannot be used to fulfill this requirement. Also, please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

### **Choose 18 credit units from the following Science courses:**

- ACB 200-Level, 300-Level, 400-Level
- ANTH 112.3
- ANTH 116.3
- ANTH 241.3
- ANTH 250.3
- ANTH 251.3
- ANTH 252.3

- ANTH 257.3
- ANTH 258.3
- ANTH 259.3
- ANTH 270.3
- ANTH 331.3
- ANTH 350.3
- *ANTH 352.3 (moribund)*
- ANTH 353.3
- ANTH 355.3
- ANTH 356.3
- *ANTH 357.3 (moribund)*
- ANTH 359.3
- ANTH 360.3
- ANTH 361.3
- ANTH 365.6: Study Abroad Museology and Egyptian Material Culture)
- ANTH 383.3
- ANTH 386.3
- ANTH 406.3
- ANTH 358.3
- ANTH 458.3
- ANTH 440.3: Archaeology of Food)
- *ANTH 459.3 (moribund)*
- ANTH 462.3
- ANTH 465.3 (moribund)
- ANTH 370.3
- ANTH 471.3
- ANTH 472.3
- ANTH 475.3
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ASTR 100-Level, 200-Level, 300-Level, 400-Level
- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- BMIS 100-Level, 200-Level, 300-Level, 400-Level
- BMSC 100-Level, 200-Level, 300-Level, 400-Level
- <u>CHEM 100-Level, 200-Level, 300-Level, 400-Level</u>
- CMPT 100-Level, 200-Level, 300-Level, 400-Level
- CPPS 100-Level, 200-Level, 300-Level, 400-Level
- EVSC 100-Level, 200-Level, 300-Level, 400-Level
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- NEUR 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level
- PLSC 100-Level, 200-Level, 300-Level, 400-Level
- <u>GEOE 375.3</u> Engineering Hydrogeology
- GEOG 120.3 Introduction to Global Environmental Systems
- GEOG 125.3 Environmental Science and Society
- GEOG 233.3 Weather and Climate
- GEOG 235.3 Earth Processes and Natural Hazards A Canadian Perspective

- GEOG 271.3
- GEOG 280.3 Environmental Geography
- GEOG 322.3 Geographic Information Systems
- GEOG 323.3 Remote Sensing
- GEOG 325.3 River Systems
- GEOG 328.3 Groundwater Hydrology
- GEOG 335.3 Glacial Geomorphology
- GEOG 351.3 Northern Environments
- GEOG 423.3 Advanced Remote Sensing
- GEOG 490.3 Honours Thesis in Hydrology or Geomatics
- <u>INDG 241.3</u> Weaving Indigenous Science and Western Science
- NUTR 120.3 Basic Nutrition
- TOX 300.3 General Principles of Toxicology

#### **Social Sciences/Social Studies**

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### **Choose 6 credit units from the following Social Sciences/Social Studies courses:**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 111.3
- ANTH 202.3
- ANTH 211.3
- ANTH 224.3
- ANTH 226.3
- ANTH 227.3
- ANTH 230.3
- ANTH 231.3
- ANTH 235.3
- ANTH 240.3
- ANTH 244.3
- ANTH 302.3
- ANTH 304.3
- ANTH 305.3
- ANTH 306.3
- ANTH 310.3ANTH 311.3
- ANTH 321.3
- ANTH 326.3
- ANTH 329.3
- ANTH 330.3
- ANTH 332.3
- *ANTH 328.3 (moribund)*
- ANTH 339.3
- *ANTH 379.3 (moribund)*

- *ANTH 383.3 (moribund)*
- ANTH 390.3
- ANTH 400.3
- ANTH 401.3
- ANTH 403.3
- ANTH 421.3 (moribund)
- ANTH 422.3
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CTST 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 220.3 Daily Life in Ancient Greece and Rome
- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CLAS 247.3
- CLAS 248.3
- GEOG 130.3 Environment Health and Planning
- GEOG 202.3 Regional Geography of Canada
- GEOG 204.3 Geography of the Prairie Region
- GEOG 208.3 World Regional Development
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 340.3
- GEOG 364.3 Geography of Environment and Health
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 491.3 Honours Thesis in Environment and Society
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLAN 392.3 History of the Built Environment from Antiquity to Early Modernity
- PLAN 442.3 Regional Planning
- PLAN 446.3 Advanced Urban Design Studio

# Early/Middle Years - Teaching Area 2

# Science

Please Note: <u>PLSC 214.3</u> Statistical Methods cannot be used to fulfill this requirement. Also, please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

# **Choose 12 credit units from the following Science courses:**

- ACB 200-Level, 300-Level, 400-Level
- ANTH 112.3
- ANTH 116.3
- ANTH 241.3
- ANTH 250.3
- ANTH 251.3
- ANTH 252.3
- ANTH 257.3
- ANTH 258.3
- ANTH 259.3
- ANTH 270.3
- ANTH 331.3
- ANTH 350.3
- ANTH 352.3 (moribund)
- ANTH 353.3
- ANTH 355.3
- ANTH 356.3
- ANTH 357.3 (moribund)
- ANTH 359.3
- ANTH 360.3
- ANTH 361.3
- ANTH 365.6: Study Abroad Museology and Egyptian Material Culture)
- ANTH 383.3
- ANTH 386.3
- ANTH 406.3
- ANTH 358.3
- ANTH 458.3
- ANTH 440.3: Archaeology of Food)
- *ANTH 459.3 (moribund)*
- ANTH 462.3
- *ANTH 465.3 (moribund)*
- ANTH 370.3
- ANTH 471.3
- ANTH 472.3
- ANTH 475.3
- ARCH 100-Level, 200-Level, 300-Level, 400-Level

- ASTR 100-Level, 200-Level, 300-Level, 400-Level
- BIOL 100-Level, 200-Level, 300-Level, 400-Level
- BMIS 100-Level, 200-Level, 300-Level, 400-Level
- <u>BMSC 100-Level, 200-Level, 300-Level, 400-Level</u>
- CHEM 100-Level, 200-Level, 300-Level, 400-Level
- CMPT 100-Level, 200-Level, 300-Level, 400-Level
- CPPS 100-Level, 200-Level, 300-Level, 400-Level
- EVSC 100-Level, 200-Level, 300-Level, 400-Level
- GEOL 100-Level, 200-Level, 300-Level, 400-Level
- NEUR 100-Level, 200-Level, 300-Level, 400-Level
- PHYS 100-Level, 200-Level, 300-Level, 400-Level
- PLSC 100-Level, 200-Level, 300-Level, 400-Level
- GEOE 375.3 Engineering Hydrogeology
- GEOG 120.3 Introduction to Global Environmental Systems
- GEOG 125.3 Environmental Science and Society
- GEOG 233.3 Weather and Climate
- GEOG 235.3 Earth Processes and Natural Hazards A Canadian Perspective
- GEOG 271.3
- <u>GEOG 280.3</u> Environmental Geography
- <u>GEOG 322.3</u> Geographic Information Systems
- <u>GEOG 323.3</u> Remote Sensing
- GEOG 325.3 River Systems
- GEOG 328.3 Groundwater Hydrology
- GEOG 335.3 Glacial Geomorphology
- GEOG 351.3 Northern Environments
- GEOG 423.3 Advanced Remote Sensing
- GEOG 490.3 Honours Thesis in Hydrology or Geomatics
- INDG 241.3 Weaving Indigenous Science and Western Science
- NUTR 120.3 Basic Nutrition
- TOX 300.3 General Principles of Toxicology

#### **Social Sciences/Social Studies**

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#### **Choose 6 credit units from the following Social Sciences/Social Studies courses:**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 111.3
- ANTH 202.3
- ANTH 211.3
- ANTH 224.3
- ANTH 226.3
- ANTH 227.3
- ANTH 230.3
- ANTH 231.3

- ANTH 235.3
- ANTH 240.3
- ANTH 244.3
- ANTH 302.3
- ANTH 304.3
- ANTH 305.3
- ANTH 306.3
- ANTH 310.3
- ANTH 311.3
- ANTH 321.3
- ANTH 326.3
- ANTH 329.3
- ANTH 330.3
- ANTH 332.3
- *ANTH 328.3 (moribund)*
- ANTH 339.3
- *ANTH 379.3 (moribund)*
- *ANTH 383.3 (moribund)*
- ANTH 390.3
- ANTH 400.3
- ANTH 401.3
- ANTH 403.3
- *ANTH 421.3 (moribund)*
- ANTH 422.3
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CTST 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 220.3 Daily Life in Ancient Greece and Rome
- <u>CLAS 225.3</u> Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CLAS 247.3
- GEOG 130.3 Environment Health and Planning
- GEOG 202.3 Regional Geography of Canada
- GEOG 204.3 Geography of the Prairie Region

- GEOG 208.3 World Regional Development
- <u>GEOG 240.3</u> Sustainable Cities and Regions
- GEOG 340.3
- GEOG 364.3 Geography of Environment and Health
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 491.3 Honours Thesis in Environment and Society
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLAN 392.3 History of the Built Environment from Antiquity to Early Modernity
- PLAN 442.3 Regional Planning
- PLAN 446.3 Advanced Urban Design Studio

## **Secondary - Teaching Area 1**

### Social Sciences/Social Studies

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### Choose 12 credit units from the following Social Sciences/Social Studies courses:

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 111.3
- ANTH 202.3
- ANTH 211.3
- ANTH 224.3
- ANTH 226.3
- ANTH 227.3
- ANTH 230.3
- ANTH 231.3
- ANTH 235.3
- ANTH 240.3
- ANTH 244.3
- ANTH 302.3
- ANTH 304.3
- ANTH 305.3
- ANTH 306.3
- ANTH 310.3
- ANTH 311.3
- ANTH 321.3
- ANTH 326.3ANTH 329.3
- ANTH 330.3

- ANTH 332.3
- *ANTH 328.3 (moribund)*
- ANTH 339.3
- *ANTH 379.3 (moribund)*
- *ANTH 383.3 (moribund)*
- ANTH 390.3
- ANTH 400.3
- ANTH 401.3
- ANTH 403.3
- *ANTH 421.3 (moribund)*
- ANTH 422.3
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CTST 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100-Level, 200-Level, 300-Level, 4</u>00-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 220.3 Daily Life in Ancient Greece and Rome
- <u>CLAS 225.3</u> Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CLAS 248.3
- GEOG 130.3 Environment Health and Planning
- GEOG 202.3 Regional Geography of Canada
- GEOG 204.3 Geography of the Prairie Region
- GEOG 208.3 World Regional Development
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 340.3
- GEOG 364.3 Geography of Environment and Health
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 491.3 Honours Thesis in Environment and Society
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLAN 392.3 History of the Built Environment from Antiquity to Early Modernity

- PLAN 442.3 Regional Planning
- PLAN 446.3 Advanced Urban Design Studio

# **Secondary - Teaching Area 2**

### Social Sciences/Social Studies

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# **Choose 3 credit units from the following Social Sciences/Social Studies courses:**

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ANTH 111.3
- ANTH 202.3
- ANTH 211.3
- ANTH 224.3
- ANTH 226.3
- ANTH 227.3
- ANTH 230.3
- ANTH 231.3
- ANTH 235.3
- ANTH 240.3
- ANTH 244.3
- ANTH 302.3
- ANTH 304.3
- ANTH 305.3
- ANTH 306.3
- ANTH 310.3
- ANTH 311.3
- ANTH 321.3
- ANTH 326.3
- ANTH 329.3
- ANTH 330.3
- ANTH 332.3
- *ANTH 328.3 (moribund)*
- ANTH 339.3
- *ANTH 379.3 (moribund)*
- *ANTH 383.3 (moribund)*
- ANTH 390.3
- ANTH 400.3
- ANTH 401.3
- ANTH 403.3
- *ANTH 421.3 (moribund)*
- ANTH 422.3
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CTST 100-Level, 200-Level, 300-Level, 400-Level

- ECON 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 110.3 Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 220.3 Daily Life in Ancient Greece and Rome
- <u>CLAS 225.3</u> Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CLAS 247.3
- CLAS 248.3
- GEOG 130.3 Environment Health and Planning
- GEOG 202.3 Regional Geography of Canada
- <u>GEOG 204.3</u> Geography of the Prairie Region
- GEOG 208.3 World Regional Development
- <u>GEOG 240.3</u> Sustainable Cities and Regions
- GEOG 340.3
- GEOG 364.3 Geography of Environment and Health
- GEOG 381.3 Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 491.3 Honours Thesis in Environment and Society
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLAN 392.3 History of the Built Environment from Antiquity to Early Modernity
- PLAN 442.3 Regional Planning
- PLAN 446.3 Advanced Urban Design Studio

# 6. Removal of ECUR 412.3: Examining Place, Purpose, Program Design, and Proficiency Levels for Language Learners from various B.Ed. program routes

<u>Rationale:</u> Given the low enrolment in the B.Ed. – Language Teacher Education Program (LTEP), intake for the 2024-2025 academic year has been on hold. Thus, the future of this program route and the classes offered as part of it are uncertain.

ECUR 412.3: Examining Place, Purpose, Program Design, and Proficiency Levels for Language Learners was created specifically for inclusion in the LTEP route. It was also approved as part of the program requirements for the B.Ed. – Early/Middle Years, Secondary, Sequential Music, Kinesiology/Education Combined, and Technical Vocational program routes for those students who have Cree, French, and/or Languages as one of their Teaching Areas. With admission to the LTEP route put on hold, it is unlikely that ECUR 412.3 will be offered in future years when students admitted to these B.Ed. program routes in 2024-2025 will need to enroll in it. Thus, the Education Faculty Council approved removing ECUR 412.3 as a program requirement for teacher candidates with Cree, French, and/or Languages Teaching Areas in these program routes admitted for the 2024-2025 academic year and beyond.

\*Colleagues in the College of Kinesiology were consulted on this change since it impacts students in the Kinesiology/Education Combined program.

- a) To remove ECUR 412.3: Examining Place, Purpose, Program Design, and Proficiency Levels for Language Learners as a requirement instead of 3 credit units of Education electives for teacher candidates with a Teaching Area 1 or 2 of Cree or French in the B.Ed. Secondary and B.Ed. Sequential Music Secondary program routes.
- b) To remove ECUR 412.3: Examining Place, Purpose, Program Design, and Proficiency Levels for Language Learners as a requirement instead of EADM/ECUR/EPSE/EFDT 411.3: Inquiry Project and Community Learning Field Experience in the B.Ed. Early/Middle Years, B.Ed. Sequential Music Early/Middle Years program routes, the B.Sc. Kinesiology/B. Education Combined Program, and the B.Ed. Technical Vocational Stream.

# **B.Ed. - Secondary Program Education Electives**

Choose **9 credit units** of Education electives from the following:

- EADM 100-Level, 200-Level, 300-Level, 400-Level
- ECUR 100-Level, 200-Level, 300-Level, 400-Level
- EFDT 100-Level, 200-Level, 300-Level, 400-Level
- EMUS 100-Level, 200-Level, 300-Level, 400-Level
- EPSE 100-Level, 200-Level, 300-Level, 400-Level

• ETAD — 100-Level, 200-Level, 300-Level, 400-Level

If your Teaching Area 1 or 2 is Cree or French, ECUR 412.3 must be taken instead of 3 credit units of Education electives (B.Ed. - Secondary Program only).

# B.Ed. – Sequential Music - Secondary Program Choose 9 credit units of Education electives from the following:

- EADM 100-Level, 200-Level, 300-Level, 400-Level
- ECUR 100-Level, 200-Level, 300-Level, 400-Level
- EFDT 100-Level, 200-Level, 300-Level, 400-Level
- EPSE 100-Level, 200-Level, 300-Level, 400-Level
- ETAD 100-Level, 200-Level, 300-Level, 400-Level

If your Teaching Area 2 is Cree or French, ECUR 412.3 must be taken instead of 3 credit units of Education electives.

# **B.Ed.** – Early/Middle Years Program

Choose **3 credit units** from the following:

- EADM 411.3
- ECUR 411.3
- EFDT 411.3
- EPSE 411.3

If your Teaching Area 1 or 2 is Cree, French or Languages, ECUR 412.3 must be taken instead of EADM/ECUR/EFDT/EPSE 411.3 (B.Ed. - Early/Middle Years Program only).

Bachelor of Education (B.Ed.) – Sequential Music - Early/Middle Years Program Choose 3 credit units from the following:

- EADM 411.3
- ECUR 411.3
- EFDT 411.3
- EPSE 411.3
- EMUS 490.3

If your Teaching Area 2 is Languages, ECUR 412.3 must be taken instead of EADM/ECUR/EFDT/EPSE 411.3 or EMUS 490.3.

Bachelor of Science Kinesiology/Bachelor of Education Combined Program [B.Sc.(Kin.)/B.Ed.]

Complete one of the following:

EADM 411.3

- ECUR 411.3
- EFDT 411.3
- EPSE 411.3

If your Teaching Area 2 is Cree or French, ECUR 412.3 must be taken instead of EADM/ECUR/EFDT/EPSE 411.3.

# **B.Ed.** – Technical Vocational Stream Choose 3 credit units from the following:

- EADM 411.3
- ECUR 411.3
- EFDT 411.3
- EPSE 411.3

If your Teaching Area 2 is Cree or French, ECUR 412.3 must be taken instead EADM/ECUR/EFDT/EPSE 411.3.

# <u>College of Engineering - University Course Challenge Submission,</u> December 2023

#### **Editorial Change for Information**

#### **Chemical Engineering:**

Rationale: The requirement to complete courses from an elective list called "Group A
Electives" was removed in 2022-23; however, the list itself was mistakenly left in the
catalogue. As the list is no longer needed at all, it would be best to remove it so as not
to confuse students or others administratively. This is a house-keeping change being
noted here for information.

# **Chemical Engineering**

Chemical Engineering deals chiefly with industrial processing to produce value-added products from raw materials. The processing of organic (crude oils, natural gas, lumber), inorganic (ores, air, salts) and biological (starches, cellulose, fats) materials into a wide range of useful commodity products, such as fuels, plastics, pharmaceuticals, fertilizers, and foods is carried out within a framework of environmental sustainability and concern for worker/public safety. Emphasis is on the design, construction and economic operation of equipment in these areas, and on related research and development. Some emphasis on environmental studies, mineral processing, petrochemicals and bio-chemicals is permitted through the choice of electives.

In addition to completing the regular program of study prescribed for a Bachelor of Science in Engineering (B.E.) program, undergraduate students registered in the Chemical Engineering major may also choose to complete one of the following three academic options: Bioprocessing Option, Mineral Processing Option, or Petroleum Option. The requirements for each of these options are listed below.

All undergraduate students admitted to the College of Engineering are required to complete a common first-year of undeclared studies (known as the first-year common core). Once the first-year common core program has been completed, undergraduate students declare their preferences and compete for admission into an upper-year program. Students who are successful in securing admission into an upper-year program are required to follow the program of study that is prescribed at the time of their admission into the upper-year program.

Recognizing that course and program changes may result in a modification to the original

program of study, it is recommended that undergraduate students consult an Academic Advisor within the Engineering Student Centre on a regular basis to confirm their program of study, choose courses (including electives), and monitor their academic progress.

# **Programs**

• Bachelor of Science in Engineering (B.E.) - Chemical Engineering

#### PROGRAM OPTIONS

- Bachelor of Science in Engineering (B.E.) Bioprocessing Option
- Bachelor of Science in Engineering (B.E.) Mineral Processing Option
- Bachelor of Science in Engineering (B.E.) Petroleum Option

# **Chemical Engineering**

Bachelor of Science in Engineering (B.E.) - Chemical Engineering (137 credit units)

#### Year 1 (41-44 credit units)

All Engineering programs have a **common** first year.

Note: Students in the Chemical Engineering Undergraduate Program cannot use ENVE 201 as a substitute for CHEM 242.

#### Year 2 (27 credit units)

#### Fall Term

- CHE 220.3
- CHEM 242.3
- CHEM 250.3
- GE 213.3
- MATH 223.3

#### Winter Term

- CHE 210.3
- CHE 223.3
- CHEM 221.3
- MATH 224.3

#### Year 3 (32 - 35 credit units)

#### Fall Term

- CHE 323.3
- CHE 325.3
- CHE 470.0
- CHEM 231.3
- GE 210.3

#### Winter Term

- CHE 315.3
- CHE 322.3
- CHE 324.3
- CHE 326.3
- CHE 333.2

#### **Fall Term or Winter Term**

- 3 credit units Complementary Studies Elective (over year 3 or year 4)
- 3 credit units Group B Elective (over year 3 or year 4)
- GE 348.3
- RCM 200.3

#### Year 4 (31-34 credit units)

#### Fall Term

- CHE 411.3
- CHE 414.2
- CHE 421.3
- CHE 423.3

#### Winter Term

- 3 credit units Group B Elective or a 400-level approved Technical Elective from another Department
- CHE 424.2
- GE 449.3

#### Fall Term or Winter Term

• 3 credit units Senior Humanities or Social Science Elective

#### Fall Term and Winter Term

Choose 6 credit units from the following:

- CHE 495.6
- GE 495.6

#### **Elective Lists**

Please consult an Academic Advisor. Some electives offered by other departments are given in alternate years.

#### **Group A Elective List**

BIOC 300.3

• BMIS 310.3

BIOL 120.3 or GEOL 121.3

BMSC 200.3 (formerly BIOC 200.3)

CHE 260.3

CHE 364.

— <del>CHEM 255.3</del>

CHEM 322.

CHEM 344.

— <del>CHEM 375.3</del>

CHEM 377.3

<u>CMPT 145.3</u>

CMPT 215.3

EARS 212 2

ME 21/13

ME 324.

#### **Group B Elective List**

• CHE 369.3

CHE 453.3

• CHE 454.3

• CHE 460.3

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**Commented [BS1]:** As per the department's request and as approved by College UAPC, please remove this list (i.e., Group A Elective List). There is no place in the major for this course or degree requirement any longer. Thank you

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- •\_\_CHE 461.3
- CHE 462.3
- CHE 468.3
- CHE 463.3
- CHE 464.3
- CHE 469.3
- GEOE 377.3
- GEOE 466.3
- ME 478.3

Note: Some Group B electives are offered in alternating years while others are offered annually. Consult with a faculty advisor to determine the availability of specific electives.

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#### **University Course Challenge – December 2023**

The curricular revisions listed below were approved through the Graduate Academic Affairs Committee and Faculty Council of the College of Graduate and Postdoctoral Studies and are now submitted to the University Course Challenge for information.

Contact: Chelsea Smith, CGPS Academic Affairs Specialist (<a href="mailto:chelsea.smith@usask.ca">chelsea.smith@usask.ca</a> or gradprograms.academicaffairs@usask.ca)

#### ITEM FOR INFORMATION

# **USask Catalogue Academic Policies**

Doctoral Candidacy Assessment – changes to policy on qualifying and comprehensive examinations

https://programs.usask.ca/grad-studies/policies.php#MastersDegreeRequirements

## **Master's Degree Requirements**

#### **Master's Degree with Thesis**

After an applicant has been admitted to the College of Graduate and Postdoctoral Studies, the academic unit submits, on the student's behalf, an approved Program of Studies. This should be done as soon as possible and not later than twelve months after the time of first registration.

If an applicant has been admitted as a candidate for a Master's degree subject to the satisfactory completion of selected preparatory courses either prior to or in parallel with the required graduate courses, the preparatory courses are designated as such on the Program of Studies. A qualifying examination on the field of study may be required by an academic unit either as a means of evaluating the student's ability to proceed with work for the degree or for the award of the degree.

Research for the thesis and its preparation usually is supervised by a member of the academic unit in which the student is enrolled. An Advisory Committee is appointed, consisting of at least two members, including the research Supervisor and at least one additional member. The Committee is responsible for periodic reviews of the student's progress toward the degree and must meet at least annually for this purpose. The Supervisor is responsible for ensuring that progress reports, meeting minutes, programs of study, and other advisory committee paperwork is completed and forwarded to the unit's graduate administrator. A report indicating unsatisfactory progress should be forwarded to the Associate Dean when further action is required.

#### Transfer from Master's to Ph.D.

Transfers from Master's to Ph.D. may take place after the first year and no later than the end of the second year of the Master's program. In order to transfer, a Master's student must first pass a qualifying examination, and fulfill other the criteria as outlined in the College of Graduate and Postdoctoral Studies Policy and Procedure manual. This examination can only be taken once. A student failing the qualifying examination or any part thereof shall not be recommended for transfer and must complete the Master's program. After completion of the Master's, the student can then apply to be considered for admission into a Ph.D. program.

# **Doctor of Philosophy Degree Requirements**

#### Admission

An applicant who is deficient in background training or in courses prerequisite to scholarly work in the chosen field of study and research or who holds a Master's degree that cannot be evaluated sufficiently cannot be admitted as a fully qualified student candidate for a Ph.D. degree. Such an applicant may be admitted to the College of Graduate and Postdoctoral Studies for the purpose of removing these deficiencies (see Classification of Admitted Students). Applicants holding a Master's degree, the equivalence of which is difficult to assess, will be permitted at the time of admission to register only as probationary students in a Ph.D. program or as a Master's student. After no less than one year and on the recommendation of the academic unit, a student may be considered by the College of Graduate and Postdoctoral Studies Office for transfer to fully-qualified status in a Ph.D. program. if the qualifying examination has been completed successfully.

After an applicant has been admitted to the College, the academic unit submits on the applicant's behalf a Program of Studies. This should be done as soon as possible and not later than twelve months after the time of admission.

#### **Qualifying Examination for Ph.D. Students**

Students must satisfy the academic unit by written or oral examination, or by both, that they have the potential to obtain sufficient knowledge of their chosen general field of study to proceed toward candidacy for the Ph.D. degree. Responsibility for this examination may be assigned to the Advisory Committee in cases where several academic units are involved. Normally this examination is administered within the first year, preferably within the first four months, of the student's program. The results of this examination are likely to have a significant impact on the Program of Studies developed for the student. The standard which a student must obtain to pass the qualifying examination is at the discretion of the academic unit or the Advisory Committee, as the case may be. A student failing an examination for the first time is permitted a second qualifying examination. A second failure automatically disqualifies the student from further work for that Ph.D. degree. This failure may be appealed to the Graduate Academic Affairs Committee on substantive or procedural grounds. The results of all qualifying examinations must be reported in the student's electronic file. The thesis examination for the award of Master's degree at this or other recognized universities, may, at the discretion of the academic unit and the College of Graduate and Postdoctoral Studies, be accepted in lieu of the Ph.D. qualifying examination.

The Ph.D. qualifying examination must already have been passed at a suitable level before consideration will be given to recommendations for transfer from a Master's to a Ph.D. program. This qualifying examination can only be taken once.

#### **Comprehensive Examination and Doctoral Candidacy Assessment**

#### **Purpose**

To ensure that a student is sufficiently prepared to be successful in their doctoral research and dissertation a student must be able to demonstrate to their committee that they have:

- •an adequate grasp of the current state of knowledge in the intended field of research;
- •the potential ability to conduct advanced original research independently using relevant methodologies; and,

•the ability to communicate in ways appropriate to the field of research and practice.

If applicable, the candidacy assessment may also evaluate a student's capability to meet other knowledge or skill requirements set by the academic unit for the discipline.

#### **Timing**

The candidacy assessment will occur within 24 months of initial registration. For students that transfer from a master's to a doctoral program the assessment will occur within 36 months of initial registration.

The candidacy assessment is scheduled to occur after the student has completed all course requirements. After satisfying the candidacy assessment, the candidate's focus will be on completing the doctoral research and dissertation.

#### **Format**

The principles of equity, transparency, and consistency will guide the approach to candidacy assessment within academic units.

The format and substance of the work for the candidacy assessment should be designed, to the greatest extent possible, to become a useful constitutive and formative part of the candidate's doctoral research and dissertation.

The doctoral candidacy assessment may be in written, oral, and/or experiential form, supporting diversity in disciplinary norms and innovation within programs. It may be administered at one time or as parts over time. Examples of formats include but are not limited to the preparation and communication of a dissertation research proposal or grant application; essays, papers, presentations, artistic works, or discussions focused on the state of knowledge in the student's intended field of doctoral research.

Each academic unit will establish and make available clear, written and specific procedures that explain the scope, format, timing and criteria for the assessment in the program's guidelines.

The student's advisory committee must inform the student in writing at least 60 days in advance that a candidacy assessment is to take place, including the academic unit's procedures as well as preparatory guidance and assessment details specific to the student. At the student's request, and with the support of the advisory committee, the assessment may be scheduled earlier.

Unless the student and CGPS are informed otherwise in advance, the assessment committee for candidacy will be all members of the student's advisory committee.

#### Outcome

CGPS must always be advised of the results of the candidacy assessment on a satisfied/unsatisfactory basis, and the date when the assessment was completed.

A student that successfully completes the candidacy assessment is deemed a doctoral candidate (e.g., Ph.D. Candidate). The student's official transcript will note the date when the candidacy assessment was satisfied.

A student that does not satisfy the requirements of their candidacy assessment is permitted a second attempt at the recommendation of the academic unit and with the permission of the Dean of CGPS or

designate. A second unsatisfactory outcome will automatically result in a requirement to discontinue from that doctoral program.

An unsatisfactory candidacy assessment, and/or the denial of a second attempt at the candidacy assessment, may be appealed to the Graduate Academic Affairs Committee of CGPS on substantive grounds in accordance with Part IV of University Council's *Procedures for Student Appeals in Academic Matters*, or on grounds other than substantive academic judgment limited to those outlined in Part V.B.1.

The comprehensive examination covers a broad aspect of the appropriate discipline and may be in written and/or oral form. This examination is usually on topics cognate to the candidate's field of research and is used as a means of judging whether the individual has a mature and substantive grasp of the discipline as a whole. A comprehensive knowledge of the subject will not only help to validate the Ph.D. student as an expert in the general field of choice but will also complement research activity in the specific area under investigation. Normally this examination is scheduled after the student has completed all course requirements and before the beginning of research and doctoral dissertation.

Only upon successful completion of the comprehensive examination at an appropriate time during the program is a student permitted to continue scholarly activity towards the Ph.D. degree. The comprehensive examination may be repeated once with the permission of the Dean of Graduate and Postdoctoral Studies or designate. The results of all comprehensive examinations must be reported to the College of Graduate and Postdoctoral Studies office. A second failure will result in the student being required to voluntarily withdraw or be Required to Discontinue from the program. This failure may be appealed to the Graduate Academic Affairs Committee on substantive or procedural grounds.

#### **Recommendations for Award of Degrees**

Prior to the dissertation defence, the Advisory Committee is responsible for establishing that the candidate has met all other requirements for the award of the degree, as specified in academic unit and College of Graduate and Postdoctoral Studies regulations and indicated on the student's approved Program of Studies: residence, qualifying examination, courses credited for the degree (including transfer credits), candidacy assessmentcomprehensive examination and any other requirements. The Advisory Committee is responsible for determining when the dissertation is ready to go to defence. The written statement to this effect must contain the exact title of the thesis, as it appears on the dissertation.

All necessary paperwork provided at the defence must be received in the College of Graduate and Postdoctoral Studies Office on or before the date, available from the College office, or under the <u>Academic Calendar</u> established in relation to Convocation.

#### **University Course Challenge – College of Nursing**

The following changes were approved by the College of Nursing Faculty Council on November 17, 2023 and are now being submitted for University Course Challenge approval.

#### **Minor Course Revisions for Approval**

#### NURS 207.3: Human Body Systems for Nursing I

An introduction to the human body beginning with the cellular level and tissues as a foundation, before progressing to a full review of key body systems (e.g., integument; skeletal: major bones; muscular: major muscles; and, nervous: nerves with sensory and motor components).

Weekly hours: 3 Lecture hours

Restriction(s): Restricted to students in the College of Nursing who are registered in the B.S.N. program

or the Post-Degree B.S.N. Option.

Prerequisite(s): BIOL 120.3 and CHEM 112.3 NURS 120.3

Rationale: Per University Council's approval of changes to the BSN Pre-professional Year 1 (University Council, April 20, 2023), students are now required to take NURS 120 Human Anatomy for Nursing, rather than CHEM 112, General Chemistry I.

#### **NURS 333.3: Complex Nursing Care Practice**

Provides opportunity to practice critical thinking skills in the analysis of information related to the nursing management of complex and/or high acuity patients in settings providing acute intervention. The role of the professional nurse as caregiver, decision-maker, and counselor will be developed. The critical functions of being competent in diagnostic and monitoring functions will be emphasized. Students will have an opportunity to develop skills in selecting, critiquing, and using evidence to support clinical practice.

Weekly hours: 144 Clinical Service hours

**Restriction(s):** Restricted to students in the College of Nursing who are registered in the B.S.N. program or the Post-Degree B.S.N. Option.

Prerequisite(s) or Corequisite(s): NURS 305.6 and NURS 332.3

**Note:** Post-Degree B.S.N. classes are offered in an open learning format with the same number of hours, but in alternate time frames. Costs in addition to tuition will apply to this course.

Rationale: NURS 305.6 is a course only for PDBSN; BSN do not take it. It is only a prereq for NURS 332 and should not have been for NURS 333.



# **University Course Challenge – December 2023**

Contact: Vicky Parohl (parohl@edwards.usask.ca)

The following items were approved by Edwards Faculty Council on December 8, 2023 and are now submitted to the University Course Challenge for approval.

#### 1. Introduce COMM 353.3 Digital Marketing Mastery I

#### COMM 353.3 Digital Marketing Mastery I

This course helps students develop the digital marketing knowledge and skills required to successfully develop and implement comprehensive and coherent digital marketing plans. Specifically, students gain digital marketing competencies, including in the areas content marketing, social media marketing, paid search, YouTube and display advertising, and email marketing. This course is delivered by local instructors in partnership with the Digital Marketing Institute (DMI). Completion of both Digital Marketing Mastery I (Comm 353.3) and Digital Marketing Mastery II (Comm 453.3) results in DMI certification.

**Permission of the Department Required** 

Prerequisite(s): COMM 204.3

**Note:** Students with credit for COMM 398.3 Special Topics: Digital Marketing Strategy cannot take this course for credit.

Rationale: This course has been offered twice as a Special Topics Course. The digital world is dynamic, and Marketers are increasingly called upon to have digital expertise. The pandemic has accelerated the need for companies to transition toward more skillful digital presence, whether engaging with employees, the community, or customers. Marketing students are disadvantaged in this environment when graduating absent knowledge and skills development in digital marketing. To assure Edwards digital courses stay relevant in the rapidly changing digital space, Edwards has partnered with the global leader in Digital Marketing, Digital Marketing Institute (DMI). We accompany this with hiring lecturers from the digital marketing professions, enabling our students to have the most impactful, actionable digital marketing learning experience possible.

### 2. Introduce COMM 453.3 Digital Marketing Mastery II

#### **COMM 453.3 Digital Marketing Mastery II**

This course helps students develop the digital marketing knowledge and skills required to successfully develop and implement comprehensive and coherent digital marketing plans. Specifically, students gain digital marketing competencies, including in the areas of search engine optimization (SEO), website development and optimization, analytics, and digital marketing strategy. This course is delivered by local instructors in partnership with the Digital Marketing Institute (DMI). Completion of both Digital Marketing Mastery I (Comm 353.3) and Digital Marketing Mastery II (Comm 453.3) results in DMI certification.

#### **Permission of the Department Required**

**Prerequisite(s):** COMM 353.3 or COMM 398.3 Special Topics: Digital Marketing Strategy **Note:** Students with credit for COMM 498.3 Special Topics: Digital Master for Marketing Professionals cannot take this course for credit.

Rationale: This course has been offered twice as a Special Topics Course. The digital world is dynamic, and Marketers are increasingly called upon to have digital expertise. The pandemic has accelerated the need for companies to transition toward more skillful digital presence, whether engaging with employees, the community, or customers. Marketing students are disadvantaged in this environment when graduating absent knowledge and skills development in digital marketing. To assure Edwards digital courses stay relevant in the rapidly changing digital space, Edwards is partnered with the global leader in Digital Marketing, Digital Marketing Institute (DMI). We accompany this with hiring lecturers from the digital marketing professions, enabling our students to have the most impactful, actionable digital marketing learning experience possible.

#### For Information

The following items were approved by Edwards Faculty Council and are now submitted to the University Course Challenge for information.

3. **MOTION**: Change the prerequisite for COMM 429.3: Personal Financial Planning and Wealth Management from COMM 363.3 or COMM 367.3 to COMM 229.3 and one of COMM 363.3 or COMM 367.3.

#### **COMM 429.3: Personal Financial Planning and Wealth Management**

This course deals with advanced concepts related to financial planning and wealth management for high-net-worth (HNW) and ultra-high-net-worth (UHNW) clients. The development of comprehensive financial plans and investment policies for both private and institutional clients is discussed, as well as estate planning and business succession planning. Ethics, tax, risk management, and legal issues are considered, from a wealth management perspective.

Weekly hours: 3 Lecture hours

Permission of the department required.

**Prerequisite(s):** COMM 229.3 and one of COMM 363.3 or COMM 367.3 **Note:** Student may receive credit for only one of COMM 329.3 or COMM 429.3.

Rationale: COMM 229.3 Personal Financial Management was recently added as a core requirement in the B.Comm. program. This course introduces students to personal financial management and should be completed prior to registration in COMM 429.3.

# Certificate in Sustainability RESTRUCTURE submission for University Course Challenge

On 1 December 2023, the School of Environment and Sustainability (SENS) Faculty Council approved a restructure of the Undergraduate Certificate in Sustainability.

<u>Rationale:</u> The Undergraduate Certificate in Sustainability has been restructured to reduce barriers for students to taking the certificate who are enrolled in programs will less flexibility in their programmatic requirements. Expanding our requirements and providing an open elective option will make the program more accessible to students from colleges and units like Computer Science, Engineering, Nursing, and Kinesiology.

There are no changes to the overall number of credit units required to complete the certificate. That remains the same at 21 credit units.

Contact: Carolyn Pytlyk (carolyn.pytlyk@usask.ca)

Changes for this restructure:

- 1. Removed *Areas of Focus* and the *Techniques and Tools* categories and grouped all listed electives from these categories into a single "restricted electives" category
- 2. Reduced the number of credit units for restricted electives to 6 cu
- 3. Removed 200-level courses from "restricted" elective—require students to take one 300—level and one 400—level course in this category.
- 4. Added an "open electives" category within which students must take at least 6 cu. These electives can be either junior (100 and 200) or senior (300 and 400) level courses. Students must be able to demonstrate that the electives chosen have a sustainability focus—to be approved by the certificate coordinator.
- 5. Remove all courses that are no longer offered (courses listed without titles)

The Certificate in Sustainability is intended to give students theoretical, methodological, strategic, and substantive exposure to sustainability-related concepts and practice. Students will choose either a natural resources, community, or food systems focus for their sustainability studies towards the certificate. The certificate will allow students to engage in problem-based, experiential learning across a broad range of sustainability topics. The program should begin in the student's second year with ENVS 201.

Certificate in Sustainability (21 credit units)

- 1) Required Courses (6 credit units):
  - ENVS 201.3 Foundations of Sustainability
  - ENVS 401.3 Sustainability in Action or EVSC 485.3 Environmental Science Capstone Course

#### 2) Indigenous Learning for Sustainability (3 credit units):

Choose at least 3 credit units from the following elective course options:

- ANTH 202.3 Anthropology and Indigenous Peoples in Canada
- ANTH 480.3
- ARCH 350.3 Introduction to Boreal Forest Archaeology
- AREC 220.3 History of Indigenous Agriculture in Canada
- COMM 347.3 Indigenous Business in Canada
- DRAM 111.3 Practicum I Indigenous Performance Methods
- ENG 242.3 Indigenous Storytelling of the Prairies
- ENG 243.3 Introduction to Indigenous Literatures
- ENG 335.3 The Emergence of Indigenous Literatures in Canada
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- HIST 266.3
- INDG 107.3 Introduction to Canadian Indigenous Studies
- INDG 210.3 Indigenous Ways of Knowing
- KIN 306.3 Introduction to Indigenous Wellness
- LING 253.3 Indigenous Languages of Canada
- PLAN 445.3 Planning with Indigenous Communities\*
- POLS 222.3 Indigenous Governance and Politics
- INDG 200-Level, 300-Level, 400-level\*

Techniques and Tools for Sustainability (3 credit units)

Choose 3 credit units from the following elective courses:

Areas of Focus (9 credit units)

Students must choose one of the following three areas of focus, in consultation with an advisor:

# **Natural Resources and Sustainability Focus**

Elective Course (9 credit units):

#### Choose one of:

- BIOL 228.3 An Introduction to Ecology and Ecosystems
- <u>ECON 275.3</u> Economics of Natural Resources
- ECON 277.3 Economics of the Environment
- ENVE 201.3 Principles of Environmental Engineering
- <u>ENVE 212.2</u> Physical Principles of Plant Biosystems

<sup>\*</sup>These courses may not be used to count as credit for both Indigenous Learning and restricted electives or open electives.

- EVSC 210.3 Environmental Physics
- EVSC 220.3 Environmental Soil Science
- GEOG 280.3 Environmental Geography
- PHIL 226.3 Environmental Philosophy
- PHIL 231.3 Moral Problems
- PHIL 236.3 Ethics and Technology
- PLSC 213.3 Principles of Plant Ecology
- TOX 200.3 Poisons and Pollutants

# **Community and Sustainability Focus**

Elective Course (9 credit units):

#### Choose one of:

- ANTH 240.3 Cultural Landscapes and Environments
- ANTH 244.3 Political Ecology Anthropology and Global Environmental Issues
- CPSJ 203.3 Cultivating Humanity
- ECON 275.3 Economics of Natural Resources
- ECON 277.3 Economics of the Environment
- <u>GEOG 208.3</u> World Regional Development
- GEOG 240.3 Sustainable Cities and Regions
- GEOG 280.3 Environmental Geography
- HIST 243.3 The Reverberations of the Industrial Revolution 1750 to today
- HIST 257.3 The Canadian Prairie to 1905
- HIST 258.3 The Canadian Prairies since 1905
- HIST 263.3
- HIST 290.3
- HIST 292.3 The Menace of Progress I Enlightenment Colonialism Dispossession
- HIST 293.3 The Menace of Progress II The Promise and Failure of Development
- PHIL 226.3 Environmental Philosophy
- PHIL 231.3 Moral Problems
- PHIL 236.3 Ethics and Technology
- POLS 226.3 Canadian Public Policy
- PLST 210.3
- SOC 202.3 Environmental Sociology
- SOC 204.3 Rural Sociology and Rural Development
- SOC 206.3 Sociology of Communities and Community Development
- SOC 227.3 Critical Issues in Canadian Society
- WGST 210.3 Gendered Perspectives on Current Events

# Food Systems and Sustainability Focus

Elective Course (9 credit units):

#### Choose one of:

- AREC 251.3 Introduction to Agricultural Policy
- AGRC 211.3 Global Food Security
- PLSC 235.3 Urban Agriculture

#### 3) Restricted Electives (6 credit units)

Students must choose at least 6 credit units of course from the list of electives below.

Choose at least 6 credit units from the following elective course options:

- ANBI 375.3 Animals and the Environment
- ANSC 301.3 Animal Production Tour
- ANTH 329.3 Environmental Anthropology
- ARCH 357.3
- AREC 330.3
- AREC 330.3
- AREC 348.3 Food Economics and Consumer Behaviour
- **BIOL 373.3** Community Ecology
- **CHEM 375.3** Environmental Chemistry
- **ECON 376.3** Energy Economics
- ENVE 381.3 Sustainability and Environmental Assessment
- EVSC 380.3 Grassland Soils and Vegetation
- FABS 371.3 Food Biotechnology
- **GEOG 333.3** Global Climate Change
- GEOG 340.3
- **GEOG 351.3** Northern Environments
- GEOG 352.3
- **GEOG 364.3** Geography of Environment and Health
- **GEOG 380.3** Environmental Geography of the Circumpolar North
- **GEOG 381.3** Development in the Canadian North Issues and Challenges
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- HIST 365.3 Recipes for a Nation Food History in Canada
- HIST 371.3 Power and Change The History of Energy
- PLAN 329.3
- PLAN 341.3 Urban Planning
- PLAN 342.3
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLSC 345.3 Pesticides and Crop Protection
- POLS 326.3 Comparative Public Policy
- POLS 328.3 Public Policy Analysis
- RRM 312.3 Natural Resource Management and Indigenous Peoples
- RRM 323.2 Resource Data and Environmental Modeling and RRM 201.1 Geographical Information Systems

- SLSC 313.3 Environmental Soil Chemistry
- <u>SLSC 342.3</u> Agronomic Soil Microbiology
- SLSC 350.3 Terrestrial Restoration
- SOC 309.3 Theories of Social Change
- SOC 344.3
- SOC 360.3 Globalization and Social Justice
- TOX 301.3 Environmental Toxicology
- ANBI 475.3 Field Studies in Arctic Ecosystems and Indigenous Peoples
- ANTH 401.3 Independent Research in Anthropology
- AREC 428.3 Case Studies in Agribusiness Management
- AREC 430.3 Advanced Natural Resource Economics
- AREC 451.3 Agricultural Policy Analysis
- AREC 432.3 Rural Development Theory and Applications
- BIOL 410.3 Current Perspectives in Environmental Biology
- BIOL 412.3 Limnology
- BIOL 470.3 Conservation Biology
- **BIOL 475.3** Ecological Toxicology
- CHEP 402.3 Global Health and Local Communities Issues and Approaches
- CPSJ 400.3 Critical Perspectives on Social Justice and the Common Good
- ENVE 432.3 Land Management and Reclamation
- EVSC 421.3 Contaminated Site Management and Remediation
- EVSC 430.3
- EVSC 492.3 Research and Term Paper
- EVSC 494.3 Research and Thesis
- FABS 401.3 Dairy Science and Technology
- FABS 436.3
- FABS 450.3
- FABS 492.3 Literature Thesis
- FABS 494.3 Research Thesis
- GEOG 464.3
- **GEOG 490.3** Honours Thesis in Hydrology or Geomatics
- **GEOG 491.3** Honours Thesis in Environment and Society
- **GEOL 464.3** Geoscience of Green Energy and the Digital Economy
- HIST 445.3
- HIST 459.3
- INDG 451.6
- LAW 444.3 Environmental Law
- PLAN 441.3 Challenges in Urban Development
- PLAN 445.3 Planning with Indigenous Communities
- PLAN 446.3 Advanced Urban Design Studio
- PLSC 401.3 Sustainable Crop Production
- PLSC 413.3 Advanced Plant Ecology
- PLSC 418.3 Management of Arable Grassland
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 423.3
- PLSC 425.3 Forest Ecology
- PLSC 492.3 Project Thesis in Plant Sciences

- PLSC 494.6 Research Thesis in Plant Sciences
- POLS 403.3 Advanced Topics in Public Law and Public Policy
- POLS 422.3 Indigenous Governance and Self Determined Sustainable Development
- SLSC 444.3 Soil Ecology
- <u>SLSC 492.3</u> Research and Term Paper
- SLSC 494.6 Research and Thesis
- SOC 402.3 Sociology of Agriculture and Food
- SOC 421.3
- WGST 411.3 Situated Transnational Feminisms

Note in each area of focus there are thesis and/or research course options listed. If a student chooses to use a thesis and/or research course towards the completion of the certificate it must be demonstrated to the certificate coordinator that the thesis pursued has a focus on sustainability and the theme of the chosen area of focus.

#### 4) Open Electives (6 credit units)

Students must choose at least 6 credit units of open electives to be approved by the certificate coordinator or Undergraduate Programs Committee Chair. These electives can be either junior (100 and 200 level) or senior (300 and 400) level courses. It must be demonstrated to the certificate coordinator that the course has a focus on sustainability.