



Academic Programs Committee of Council

University Course Challenge

Scheduled posting: December, 2016

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 Arts & Science
College of Agriculture & Bioresources
College of Education
College of Engineering
College of Graduate Studies & Research
School of Environment & Sustainability

Approval: Date of circulation: December 15, 2016
 Date of effective approval if no challenge received: January 4, 2017

Next scheduled posting:

The next scheduled Challenge document posting will be January 17, 2017, with a submission deadline of **January 13, 2017**. Urgent items can be posted on request.

Please direct challenges to both of the following: seanine.warrington@usask.ca in Registrarial Services and amanda.storey@usask.ca in the Office of the University Secretary.

College of Agriculture and Bioresources, Submission to December, 2016 Course Challenge

Please note the following items are submitted to University Course Challenge for approval:

Academic Information & Policies Section of the Catalogue:

Academic Awards to Graduates

Remove the following note:

Note: Honours students must pass an Honours Oral Examination.

Rationale:

This is incorrect. An Honours oral examination is not administered.

Minor Program Revisions:

Diploma in Agribusiness Open electives requirement

Remove the following for all years of the Diploma in Agribusiness:

Open Electives

~~Choose 3 Credit Units. The following is a list of recommended open electives:~~

- ~~• BLE 205.3~~
- ~~• BLE 261.3~~
- ~~• BLE 275.3~~
- ~~• CMPT 100.3~~
- ~~• COMM 102.3~~
- ~~• ENG 111.3 or ENG 112.3 or ENG 113.3 or ENG 114.3~~
- ~~• PLSC 201.3~~
- ~~• SLSC 240.3~~

~~Students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to fill their open electives with one or more of the following courses listed in the order of their importance: MATH 104.3, MATH 110.3 or MATH 121.3, ECON 211.3, PLSC 214.3 or STAT 245.3, AREC 322.3, AREC 272.3, COMM 203.3, ENG 111.3, ENG 112.3, ENG 113.3 or ENG 114.3, ECON 114.3.~~

Replace the above with the following:

~~Choose 3 credit units of open electives.~~

~~Please note that students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to register in MATH 104.3 (or an approved equivalent) and ECON 211.3 as open electives and meet with an advisor as soon as possible to plan their program.~~

Rationale:

The previous list was misleading and limiting to students. It was also meant to be a suggestion rather than an official part of the program thus did not belong in the Catalogue.

BLE 261:

Removal of BLE 261 from all programs in the College of Agriculture & Bioresources

Rationale: The class is no longer available to AgBio students.

Toxicology Minor

Add TOX 302.3 to the list of approved restricted electives to match changes made to the Arts and Science Toxicology Minor, as follows:

Program Requirements

Minor

Requirements

- [TOX 300.3](#)
- [TOX 301.3](#)

Restricted Electives

Choose minimum 6 Credit Units from the following:

- **TOX 302.3**
- [TOX 310.3](#)
- [TOX 321.3](#)
- [TOX 402.3](#)
- [TOX 403.3](#)
- [TOX 412.3](#)

Open Electives

Choose minimum 6 Credit Units from the following:

- [BIOL 412.3](#)
- [BIOL 475.3](#)
- [BIOL 224.3/BMSC 224.3](#)
- [CHEM 375.3](#)
- [EVSC 420.3](#)
- [GEOG 351.3](#)

Prerequisite Change:

FABS 492 Prerequisite

Remove: "Successful completion of 90 credit units towards the B.S.A. in the FABS major."

Change to: "Successful completion of 90 credit units towards the B.S.A. in the FABS major or towards the B.Sc in Food Science, or permission of the department head."

University Course Challenge – December 2016

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)

Business Economics

Minor program revisions

Bachelor of Arts Honours and Four-year in Business Economics

Add ECON 274 as an option to ECON 214; add ECON 273 as an option to ECON 211.

Bachelor of Arts Four-year (B.A. Four-year) - Business Economics **B6 Major Requirement (minimum 54 credit units)**

- [COMM 201.3](#)
- [COMM 210.3](#) (formerly COMM 301 or COMM 302)
- [COMM 203.3](#)*
- [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 or MATH 125) as a prerequisite for COMM 203. Students are responsible for approaching the Department of Economics for necessary prerequisite overrides.

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

- [COMM 105.3](#) (formerly COMM 202)
- [COMM 304.3](#) (formerly COMM 208)
- [COMM 204.3](#)
- [COMM 381.3](#)
- [COMM 211.3](#)
- [COMM 345.3](#)

Senior Economic Electives

Choose **18 credit units** with a minimum of 6 credit units at the 300- or 400-level.

- [200-Level, 300-Level or 400-Level ECON Courses](#)

Economic and/or Commerce Electives

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

Bachelor of Arts Honours (B.A. Honours) - Business Economics **B6 Major Requirement (minimum 54 credit units)**

- [COMM 201.3](#)

- [COMM 203.3](#)*
- [COMM 210.3](#) (formerly COMM 301 or COMM 302)
- [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 or MATH 125) as a prerequisite for COMM 203. Students are responsible for approaching the Department of Economics for necessary prerequisite overrides.

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

- [COMM 105.3](#) (formerly COMM 202)
- [COMM 304.3](#) (formerly COMM 208)
- [COMM 204.3](#)
- [COMM 381.3](#)
- [COMM 211.3](#)
- [COMM 345.3](#)

Senior Economic Electives

Choose **12 credit units** with a minimum of 6 credit units at the 300- or 400-level.

- [200-Level, 300-Level or 400-Level ECON Courses](#)

Choose 6 credit units at the 400-level

- [400-Level ECON Courses](#)

Economic and/or Commerce Electives

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

Rationale: The department faculty realize that many of our students take Calculus before they take intermediate macro- or micro-economics. ECON 273 and 274 allow us to teach these students using calculus, while at the same time maintaining the ability to teach these concepts without calculus by retaining ECON 214 and 211. This provides increased flexibility for students.

Digital Culture & New Media

Minor program revision

Minor in Digital Culture & New Media

Add PHIL 222 as one of the classes that can be used to fulfill program requirements

Digital Culture & New Media - Minor Requirements (24 credit units)

- [INCC 210.3](#)
- [INCC 401.3](#)

Choose 18 credit units from at least TWO of the following four disciplines (not more than 6 credit units from the student's major):

Art
Computer Science
English
History
Interdisciplinary Study of Culture & Creativity (INCC)

No change to existing lists.

Philosophy

- [PHIL 236.3](#)
- PHIL 222.3

Optional Complementary Courses

These courses may not be used to satisfy the requirements of the minor. They are identified here only as they may be of interest to students who choose the program.

- [DRAM 340.3](#)
- [DRAM 440.3](#)
- [ENG 288.3](#)
- [WGST 355.3](#)

Rationale: PHIL 222 (Philosophy in the Digital World) is relevant to the subject of this Minor and its inclusion allows students greater choice and flexibility.

Economics

Minor Program Revisions Bachelor of Arts Four-year and Three-year, and the Minor and Post-Degree Specialization Certificate in Economics

Add ECON 273 as an option to ECON 211.

[Bachelor of Arts Four-year \(B.A. Four-year\) - Economics B6 Major Requirement \(30 credit units\)](#)

- [ECON 211.3](#) or [ECON 273.3](#)
- [ECON 214.3](#) or [ECON 274.3](#)
- [ECON 304.3](#)
- [STAT 245.3](#)

* See Statistics Course Regulations in Policies and Regulations in the [Academic Information and Policies](#) section.

Choose 18 additional credit units in senior economics, of which 12 must be at the 300- or 400-level.

- [200-Level, 300-Level or 400-Level ECON Courses](#)

[Bachelor of Arts Three-year \(B.A. Three-year\) - Economics B6 Major Requirement \(24 credit units\)](#)

- [ECON 211.3](#) or [ECON 273.3](#)
- [ECON 214.3](#) or [ECON 274.3](#)
- [ECON 304.3](#)
- [STAT 245.3](#)

* See Statistics Course Regulations in Policies and Regulations in the [Academic Information and Policies](#) section.

Choose 12 additional credit units in senior economics, of which 6 must be at the 300- or 400-level.

- [200-Level, 300-Level or 400-Level ECON Courses](#)

[Economics - Post-Degree Specialization Certificate](#)

The program requires completion of at least 30 credit units from the College of Arts & Science including completion of the department's discipline requirements, promotion and graduation standards, for a Four-year major in Economics. The program requires completion of ECON 111, 114, 211 or 273, 214 or 274, 304, 12 credit units in ECON at the 300- or 400-level, 6 additional credit units in ECON, and STAT 245. A junior course in calculus is prerequisite for most 300-level ECON courses.

[Economics - Minor](#)

This minor may be taken in conjunction with any degree in the College of Arts & Science excluding Economics or Business Economics.

The Minor average in Economics will be calculated using the grades earned in all courses eligible to be included in the Minor program requirements. Students must complete at least two-thirds of the program requirements (rounded to the nearest highest multiple of 3 credit units) using courses offered by the University of Saskatchewan to meet the Residency requirement.

[Requirements \(21 credit units\)](#)

- [ECON 111.3](#)
- [ECON 114.3](#)
- 15 additional credit units in economics

It is recommended that students also take [ECON 211.3](#) or [ECON 273.3](#), and [ECON 214.3](#) or [ECON 274.3](#). Students considering further studies in economics should include these courses in their program.

Rationale: See Business Economics above.

Bachelor of Arts Honours and Double Hours in Economics

Add ECON 273 as an option to ECON 211; Replace ECON 404.6 with ECON 408.3 and 3 credit units of senior ECON courses.

[Bachelor of Arts Honours \(B.A. Honours\) - Economics](#) [B6 Major Requirement \(42 credit units\)](#)

At least 12 credit units must be at the 400-level.

- [ECON 211.3](#) or [ECON 273.3](#)
- [ECON 214.3](#) or [ECON 274.3](#)
- [ECON 304.3](#)
- [ECON 305.3](#) or [MATH 264.3](#) or [MATH 266.3](#)

- [ECON 306.3](#) or [MATH 225.3](#) or [MATH 276.3](#)
- [ECON 389.3](#)
- ~~[ECON 404.6](#)~~
- [ECON 408.3](#)
- [STAT 245.3](#)

* See Statistics Course Regulations in Policies and Regulations in the [Academic Information and Policies](#) section.

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

- [ECON 373.3](#)
- [ECON 412.3](#)
- [ECON 450.3](#)
- [ECON 473.3](#)
- [ECON 474.3](#)

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

- [ECON 374.3](#)
- [ECON 411.3](#)
- [ECON 414.3](#)

Choose **9 12 credit units** from the following:

- [200-Level, 300-Level or 400-Level ECON Courses](#)

[Bachelor of Arts Double Honours - Economics - Major 1](#)
[B6 Major Requirement \(30 credit units\)](#)

- [ECON 211.3](#) or [ECON 273.3](#)
- [ECON 214.3](#) or [ECON 274.3](#)
- [ECON 304.3](#)
- [ECON 305.3](#) or [MATH 264.3](#) or [MATH 266.3](#)
- [ECON 306.3](#) or [MATH 225.3](#) or [MATH 276.3](#)
- ~~[ECON 404.6](#)~~
- [ECON 408.3](#)
- [STAT 245.3](#)

* See Statistics Course Regulations in Policies and Regulations in the [Academic Information and Policies](#) section.

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

- [300-Level or 400-Level ECON Courses](#)

[Double Honours - Economics - Major 2](#)
[Requirements \(36 credit units\)](#)

- [ECON 111.3](#)
- [ECON 114.3](#)
- [ECON 211.3](#) or [ECON 273.3](#)
- [ECON 214.3](#) or [ECON 274.3](#)

- [ECON 304.3](#)
- [ECON 305.3](#) or [MATH 264.3](#) or [MATH 266.3](#)
- [ECON 306.3](#) or [MATH 225.3](#) or [MATH 276.3](#)
- ~~ECON 404.6~~
- [ECON 408.3](#)
- [STAT 245.3](#)

* See Statistics Course Regulations in the [Academic Information and Policies](#) section.
Choose **6-9 credit units** from the following:

- [300-Level or 400-Level ECON Courses](#)

If you require further assistance, please contact the Arts & Science Undergraduate Student Office.

Rationale: See Business Economics above.

The rationale for the change from ECON 404.6 (Econometrics) is threefold:

1. We introduced a new requirement for all programs in economics last year, Econ 304--- Introduction to Empirical Economics. This course strengthens the core of the program enough that we feel that, together with ECON 408.3 (Econometrics I), Honours students will reach the same level of competence as they used to with ECON 404.6
2. The change better aligns the program with Honours in Economics programs in other institutions.
3. It also makes the requirements in econometrics more symmetric with the requirements in micro- and macro-economics, the other two pillars of the discipline. Students with a keen interest in econometrics have the choice to take ECON 409.3 (Econometrics II) as an Economics elective.

New course

ECON 273.3 Intermediate Microeconomic Theory

1/2 (3L) Presents the student with a formal analysis of consumer demand, producer cost, market price and quantity behaviour in competition, monopoly, and oligopoly. Course content is the same as in ECON 211 but this course uses calculus while ECON 211 does not.

Prerequisite(s): Econ 111, and one of MATH 104, 110, 121, 123, or 125.

Note: Students may only take one of ECON 211 and ECON 273 for credit.

Instructor(s): Professors Bruneau, Fenig, Gilchrist, Howe, Huq, Sari, Zhao.

Rationale: This course is created as an alternative to ECON 211, Intermediate Microeconomics, for students with knowledge of calculus. A significant share of students currently taking ECON 211 have already taken a math course in first year. They will benefit from a more formal and mathematical approach to microeconomic theory. The department is currently offering several sections of ECON 211 every year. The main reason for introducing this new course is to differentiate our intermediate micro offerings, to better cater to the individual interests of our students.

Geology

New Course

GEOL 306.3 Handling and visualising deep earthtime geoscience data

1 (3L – 3P) Large datasets are common in the geosciences. Effective processing of these data require them to be structured, preferably utilising database systems. Visualisation and representation of the characteristics of the data are typically best performed using robust, non-parametric procedures which emphasise unusual data. Data which vary with both time and space require special treatment and presentation when utilising GIS or plate reconstruction models. This course provides an introduction to structuring data, the development of project-specific databases, time-slider variations in GIS, plate reconstruction modelling and geochemical data visualisation. It draws on skills learned in igneous, sedimentary and metamorphic geology, together with introductory GIS courses to teach students how to more effectively work with large deep earth-time datasets. These insights and approaches will position

the student better for later geology classes such as GEOL 406 and GEOL 465 and for most exploration work environments.

Prerequisite(s): GEOL 206.3 or GEOL 229.3

Pre- or co-requisites: GEOG 222.3

Note: Students may find it advantageous to take one of CMPT 113 or CMPT 140, and one of STAT 242, STAT 245, or STAT 245 prior to taking this course.

Instructor: Bruce Eglington

Rationale: This new course has been designed to help students become more numerate in their data processing and to prepare them for practical aspects of GEOL 406 and GEOL 465 and typical geoscience work situations. After an initial special topics test implementation, it is intended to become a regularly scheduled class which helps students utilise major software to process and visualise their geological expert knowledge so as to be more effective geologists who can better link cause and effect across multiple sub-disciplines of the earth sciences.

Health Studies

Minor Program Revisions

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

Add ENG 120.3 to the list of 100-level English courses in J2.

J2 Arts Distribution Requirement (18 credit units)

- [PSY 120.3](#) (formerly half of PSY 110)
- [PSY 121.3](#) (formerly half of PSY 110)

Choose **3-6 credit units** from the following:

- [ENG 110.6](#)
- [ENG 111.3](#)
- [ENG 112.3](#)
- [ENG 113.3](#)
- [ENG 114.3](#)
- **ENG 120.3**

Choose **6-9 credit units** from the following:

Note that many of the required courses described below have first year prerequisites. [ANTH 111.3](#), [ECON 111.3](#), [GEOG 130.3](#), 3 credit units 100-level HIST, [INDG 107.3](#), [SOC 111.3](#), [SOC 112.3](#), [WGST 112.3](#) are recommended options.

- *No changes to list.*

Rationale: ENG 120.3 (Introduction to Creative Writing) was introduced last year, and is an appropriate course for use in the Health Studies English course requirement.

Interactive Systems Design

Minor Program Revisions

Bachelor of Arts and Science Four-year in Interactive Systems Design

Revise ART course options to reflect changes proposed by the Department of Art and Art History.

Bachelor of Arts and Science Four-year (B.A. & Sc. Four-year) - Interactive Systems Design J3 Major Requirement (54 credit units)

No changes

Art Requirement (24 credit units)

Choose one of the following options

- [ART 211.6](#) and [ART 311.6](#)
- [ART 212.6](#) and [ART 312.6](#)
- ~~ART 213.6~~ [ART 251.3](#) and [ART 313.6](#) and 3 credit units senior ART or ARTH courses
- [ART 216.6](#) and [ART 316.6](#)
- [ART 214.6](#), or ([ART 241.3](#) and [ART 242.3](#)); and [ART 341.3](#) and 3 credit units senior ART or ARTH courses
- [ART 236.3](#) and [ART 237.3](#) and [ART 338.3](#); and [ARTH 250.3](#) or [ARTH 251.3](#)
- [ARTH 250.3](#) or [ARTH 251.3](#); and 9 credit units senior ARTH courses including at least 3 credit units at the 300-level or above.

No further changes.

Rationale: Art & Art History are proposing to condense ART 213.6 (Printmaking II) into one 3-credit unit course, and this change is therefore necessary to align with that change. The change to the sculpture option will provide greater flexibility for students, and ensure that the two options align.

Philosophy

New course

PHIL 239.3 Pacifism and the Possibility of Just Wars

1/2 (3L) What is a just cause to go to war? Are there moral ways to fight a war? Is the only morally defensible position to oppose war altogether and embrace pacifism? How does morality even apply in a time of weapons of mass destruction and global terrorism? This course will examine just war theory and consider challenges presented by pacifists, moral sceptics and by the contemporary nature of war itself. Prerequisite(s): 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

Instructor(s): Maricarmen Jenkins, John Liptay

Rationale: With declining enrollments in some philosophy courses and humanities courses in general, there is a need to re-examine our current offerings and propose new courses that address the interests and concerns of students today. Although just war theory and pacifism are fairly traditional philosophical topics going back to the beginnings of philosophy (and thus such a course will be of interest to many philosophy majors), this course on just war theory and pacifism is also specifically designed to bring philosophical examination to contemporary concerns, including concerns about terrorism and weapons of mass destruction. As a result, this course is designed to appeal not just to philosophy majors but to any student interested in a more in-depth ethical examination of matters relating to war and the use of violence.

PHIL 228.3 Critical Social Philosophy

1/2 (3L) Behind many of the criticisms made of contemporary society, whether criticisms of its excessive consumerism, bureaucracy and control, surveillance, one-dimensional thinking or its more general malaise, are influential philosophers such as Adorno, Horkheimer, Foucault, Marcuse, Arendt, and Taylor. This course will examine the philosophical basis for common criticisms of society originating in post-Marxist thinkers and extending beyond.

Prerequisite(s): 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

Instructor(s): Maricarmen Jenkins, Pierre-Francois Noppin

Rationale: With declining enrollments in some philosophy courses and humanities courses in general, there is a need to re-examine our current offerings and propose new courses that address the interests and concerns of students today. Although this course could also be described as a course, in part, introducing "critical theory" or social criticism originating with the Frankfurt School, the course is also designed to relate a critical approach to specific concerns that students may have today about contemporary society. As a result, this course acts both as an introduction to philosophers such as Adorno, Horkheimer, Foucault, Marcuse, Arendt, Taylor and others (depending on the interests of the instructor) to prepare philosophy majors for upper year courses dealing with continental philosophy, and as a more in-depth philosophical understanding of problems associated with contemporary society such as its excessive consumerism, bureaucracy and control, surveillance, one-dimensional thinking, etc. In other words, this course is designed to appeal not just to philosophy majors but to any student interested in a more in-depth ethical examination of problems relating to contemporary society.

Course deletions

PHIL 212.3 Medieval Intellectuals

PHIL 240.3 Aristotelian Logic

PHIL 413.3 Philosophy of Thomas Aquinas II

Rationale: The Arts & Science and STM Departments of Philosophy have done an inventory of current courses, and are deleting those courses which are moribund or soon will be. Given changes in person-power and faculty complement, these 3 courses can no longer be resourced.

Physics

Minor Program Revisions

Bachelor of Science Honours, Double Honours, Four-year, and Three-year and Minor in Physics

Include EE 221 in the list of optional courses in C6 and in the list of courses eligible for use in the Minor.

Bachelor of Science Four-year (B.Sc. Four-year) - Physics **C6 Major Requirement (36 credit units)**

- [EP 253.1](#)
- ...
- [PHYS 490.0](#)

Choose additional credit units from the following list to satisfy the 36 credit unit requirement under C6:

- [ASTR 213.3](#)
- [ASTR 214.3](#)
- [ASTR 310.3](#)
- [ASTR 312.3](#)
- [ASTR 411.3](#)
- [EE 221.3](#)
- [EP 228.3](#)
- [EP 317.3](#)

- [EP 325.3](#)
- ...
- [PHYS 499.6](#)

Bachelor of Science Three-year (B.Sc. Three-year) - Physics
C6 Major Requirement (24 credit units)

- [EP 253.1](#)
- ...
- [PHYS 252.3](#)

Physics Electives

Choose additional credit units from the following list to satisfy the 24 credit unit requirement under C6:

- [ASTR 213.3](#)
- [ASTR 214.3](#)
- [ASTR 310.3](#)
- [ASTR 312.3](#)
- [ASTR 411.3](#)
- [EE 221.3](#)
- [EP 228.3](#)
- [EP 317.3](#)
- ...
- [PHYS 499.6](#)

Bachelor of Science Honours (B.Sc. Honours) - Physics
C6 Major Requirement (48 credit units)

Required core courses:

- [EP 253.1](#)
- ...
- [PHYS 490.0](#)

Choose additional credit units from the following list to satisfy the 48 credit unit requirement. At least 6 credit units must be at the 400-level.

- [ASTR 213.3](#)
- [ASTR 214.3](#)
- [ASTR 310.3](#)
- [ASTR 312.3](#)
- [ASTR 411.3](#)
- [EE 221.3](#)
- [EP 228.3](#)
- [EP 325.3](#)
- ...
- [PHYS 499.6](#)

A student may choose to complete a Specialization as part of the B.Sc. (Honours) in Physics. ...

No further changes to Requirement C6.

Bachelor of Science Double Honours - Physics - Major 1
C6 Major Requirement (36 credit units)

- [PHYS 223.3](#)
- ...
- [MATH 331.3](#)

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

[MATH 223.3](#) recommended

- [MATH 223.3](#)
- [MATH 225.3](#)
- [MATH 276.3](#)

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

[MATH 224.3](#) recommended

- [MATH 224.3](#)
- [MATH 226.3](#)
- [MATH 238.3](#)

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

Physics Electives

- [ASTR 213.3](#)
- [ASTR 214.3](#)
- [ASTR 310.3](#)
- [ASTR 312.3](#)
- [ASTR 411.3](#)
- [EE 221.3](#)
- [EP 253.1](#)
- [EP 317.3](#)
- ...
- [PHYS 493.6](#)

Physics - Double Honours - Major 2

Requirements (42 credit units)

- [PHYS 115.3](#)
- ...
- [MATH 331.3](#)

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

[MATH 223.3](#) recommended

- [MATH 223.3](#)
- [MATH 225.3](#)

- o [MATH 276.3](#)

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

[MATH 224.3](#) recommended

- o [MATH 224.3](#)
- o [MATH 226.3](#)
- o [MATH 238.3](#)

Physics Electives

Choose 15 credit units from the following, with at least 3 credit units at 400-level:

- o [ASTR 213.3](#)
- o [ASTR 214.3](#)
- o [ASTR 310.3](#)
- o [ASTR 312.3](#)
- o [ASTR 411.3](#)
- o [EE 221.3](#)
- o [EP 253.1](#)
- o [EP 317.3](#)
- o ...
- o [PHYS 493.6](#)

If you require further assistance, please contact the Arts & Science Undergraduate Student Office.

[Bachelor of Science Double Honours - Physics and Biochemistry - Majors 1 and 2](#)

Double Honours Major Averages

The major average for Physics will be calculated using the grades in all PHYS courses; [MATH 116.3](#); and any courses taken from [EE 221.3](#), [EP 253.1](#), [EP 271.3](#), [EP 317.3](#), [EP 353.2](#), [EP 354.2](#), [EP 421.3](#), [EP 431.3](#), [EP 464.3](#).

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Double Honours Residency Requirements

To meet the residency requirement for the Physics major students must complete at least two-thirds (to the nearest highest multiple of 3 credit units) of [MATH 116.3](#); [PHYS 115.3](#); [PHYS 117.3](#) or [PHYS 125.3](#); [PHYS 223.3](#); [PHYS 252.3](#); [PHYS 356.3](#); [PHYS 371.3](#); [PHYS 383.3](#); [PHYS 490.0](#); and 18 credit units from [EE 221.3](#), [EP 253.1](#), [EP 271.3](#), [EP 317.3](#), [EP 353.2](#), [EP 354.2](#), [EP 421.3](#), [EP 431.3](#), [EP 464.3](#), [PHYS 230.1](#), [PHYS 231.1](#), [PHYS 323.3](#), [PHYS 352.3](#), [PHYS 402.3](#), [PHYS 403.3](#), [PHYS 452.3](#), [PHYS 461.3](#), [PHYS 470.3](#), [PHYS 471.3](#), [PHYS 481.3](#), [PHYS 482.3](#), [PHYS 492.3](#), [PHYS 498.3](#), and [PHYS 499.6](#); and [PHYS 493.6](#) (if chosen) from the University of Saskatchewan. [BIOL 493.6](#) will count as part of residency requirement only if chosen.

...

C6 Major Requirement (72 credit units)

- [MATH 116.3](#)
- ...
- [PHYS 490.0](#)

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

- [BIOC 405.3](#)
- ...
- [BIOC 436.3](#)

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

- [EE 221.3](#)
- [EP 253.1](#)
- [EP 317.3](#)
- ...
- [PHYS 499.6](#)

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

- [BIOC 489.6](#)
- [PHYS 493.6](#)

Physics - Minor

Requirements (18 credit units)

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

- [100-Level, 200-Level, 300-Level or 400-Level PHYS Courses](#)
- [EE 221.3](#)
- [EP 202.3](#)
- [EP 228.3](#)
- ...
- [EP 428.3](#)

Rationale: EP 311 (Electronics I) was deleted in May 2013, and replaced by EE 221.3 (Analog Electronics) in the Engineering Physics program. Prior to being deleted, EP 311 was listed as an optional course in the Physics programs, and therefore this replacement is needed in these programs as well.

Physiology & Pharmacology

Minor Program Revisions

Bachelor of Science Honours, Four-year and Three-year in Physiology & Pharmacology

Remove PHPY 306.3 and 307.3 and replace with new lab course, PHPY 308.3.

In the Four-year program, remove requirement to take all of PHPY 402-405, and add a requirement to take 6 credit units from PHPY 401-405, and add a requirement for students to take 6 credit units from a list of PHPY and other related courses.

Bachelor of Science Three-year (B.Sc. Three-year) - Physiology & Pharmacology

C6 Major Requirement (~~39~~ 36 credit units)

- [PHSI 208.6](#)
- [BMSC 200.3](#)
- [BMSC 210.3](#)
- [BMSC 220.3](#)
- [BMSC 230.3](#)
- [BMSC 240.3](#)
- [HSC 350.3](#)
- [PHPY 302.3](#)
- [PHPY 303.3](#)
- [PHPY 304.3](#)
- ~~PHPY 306.3~~
- ~~PHPY 307.3~~
- [PHPY 308.3](#)

C7 Electives Requirement (~~15~~ 18 credit units)

Bachelor of Science Four-year (B.Sc. Four-year) - Physiology & Pharmacology

C6 Major Requirement (~~57~~ 54 credit units)

~~PHPY 401.3 is a recommended, optional course.~~

- [PHSI 208.6](#)
- [BMSC 200.3](#)
- [BMSC 210.3](#)
- [BMSC 220.3](#)
- [BMSC 230.3](#)
- [BMSC 240.3](#)
- [HSC 350.3](#)
- [PHPY 301.3](#)
- [PHPY 302.3](#)
- [PHPY 303.3](#)
- [PHPY 304.3](#)
- [PHPY 305.3](#)
- ~~PHPY 306.3~~
- ~~PHPY 307.3~~
- [PHPY 308.3](#)
- ~~PHPY 402.3~~
- ~~PHPY 403.3~~
- ~~PHPY 404.3~~
- ~~PHPY 405.3~~
- [PHPY 490.0](#)

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

- [PHPY 401.3](#)
- [PHPY 402.3](#)
- [PHPY 403.3](#)
- [PHPY 404.3](#)
- [PHPY 405.3](#)

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

- [PHPY 401.3](#)
- [PHPY 402.3](#)
- [PHPY 403.3](#)
- [PHPY 404.3](#)
- [PHPY 405.3](#)
- [ACB 310.3](#)
- [ACB 325.3](#)
- [ACB 330.3](#)
- [ACB 331.3](#)
- [ACB 334.3](#)
- [ACB 400.3](#)
- [ACB 405.3](#)
- [ACB 406.3](#)
- [BIOC 300.3](#)
- [BIOC 310.3](#)
- [BIOC 311.3](#)
- [BIOC 405.3](#)
- [BIOC 412.3](#)
- [BIOC 430.3 or BIOC 435.3](#)
- [BIOC 436.3](#)
- [MCIM 308.3](#)
- [MCIM 309.3](#)
- [MCIM 321.3](#)
- [MCIM 326.3](#)
- [MCIM 390.3](#)
- [MCIM 391.3](#)
- [MCIM 416.3](#)
- [MCIM 417.3](#)
- [MCIM 423.3](#)
- [MCIM 487.3](#)
- [TOX 300.3](#)
- [TOX 402.3](#)
- [TOX 403.0](#)

C7 Electives Requirement (2427 credit units)

Bachelor of Science Honours (B.Sc. Honours) - Physiology & Pharmacology

C6 Major Requirement (57 54 credit units)

~~[PHPY 401.3](#) is a recommended, optional course.~~

- [PHSI 208.6](#)
- [BMSC 200.3](#)
- [BMSC 210.3](#)
- [BMSC 220.3](#)
- [BMSC 230.3](#)

- [BMSC 240.3](#)
- [HSC 350.3](#)
- [PHPY 301.3](#)
- [PHPY 302.3](#)
- [PHPY 303.3](#)
- [PHPY 304.3](#)
- [PHPY 305.3](#)
- ~~[PHPY 306.3](#)~~
- ~~[PHPY 307.3](#)~~
- ~~[PHPY 308.3](#)~~
- [PHPY 432.6](#)
- [PHPY 490.0](#)

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

- ~~[PHPY 401.3](#)~~
- [PHPY 402.3](#)
- [PHPY 403.3](#)
- [PHPY 404.3](#)
- [PHPY 405.3](#)

C7 Electives Requirement (24 27 credit units)

Rationale: The combined Physiology and Pharmacology laboratory will provide students with more flexibility as the class will be offered in both terms. The decreased numbers of students in the labs at one time will enable us to give the students a better hands-on experience in experimental research. We will include the best laboratory sessions in physiology and pharmacology from the previous two labs. The option of additional courses to choose from, in the Four-year program, will decrease the size of our 400 level classes in order to allow more interactive learning. Our current classes are too large to facilitate student presentations, and other course activities that should occur at a 400 level. Students will also benefit from the exposure to other biomedical science disciplines.

New course(s)

PHPY 308.3 Experimental Basis of Physiology and Pharmacology

1/2 (3P) Physiological and pharmacological knowledge is largely acquired by application of the experimental method to living organisms, or organs, tissues or cells derived from living organisms. This course introduces the student to the skills required for experimentation. These include an understanding of hypothesis formation, experimental design and use of the most appropriate methods, instrumentation and data analysis. This course also covers the application of basic mechanisms by which drugs interact with specific receptors at distinct sites to modify physiological functions. It gives a hands-on experience in the in vitro experiment and analysis of several important parameters often discussed in the physiological and pharmacological literature.

Prerequisite(s): BMSC 240 and PHSI 208

Pre- or co-requisite(s): PHPY 304.3

Note: Students must complete the University of Saskatchewan Biosafety online course and the UACC Animal Ethics Course: Lab Animals online course prior to the first laboratory section. Registration information for both courses is available at: safetyresources.usask.ca/services/training/. Students with credit for PHSI 334.6, PHPY 306.3 and PHPY 307.3 cannot take this course for credit.

Instructors: Kash Desai, Paul Lee, Venkat Gopalakrishnan, Greg Sawicki, Landon Bailie, Thomas Fisher, Jonathan Norton, Craig MacPhee

Rationale: PHPY 308.3 is being created to decrease the numbers of students in the labs at one time to give the students a better hands-on experience in experimental research. The best laboratory sessions in physiology and pharmacology from the previous two labs will be included in PHPY 308.3. The students will also have greater flexibility in their schedule to add other course options.

Course deletions

PHPY 306.3 Physiology Laboratory

PHPY 307.3 Pharmacology Laboratory

These courses are being condensed into PHPY 308.3.

Rationale: See PHPY 308 above.

Minor course revisions

PHPY 401.3 Animal Surgery and Experimentation

Prerequisite change:

Old prerequisite: PHPY 306.3 and PHPY 307.3, or permission of the instructor.

New prerequisite: PHPY 308.3

Rationale: PHPY 306 and 307 will be replaced by PHPY 308.

PHPY 432.6 Research Project in Physiology and Pharmacology

Prerequisite change:

Old prerequisite: PHPY 306.3 and PHPY 307.3, or permission of the instructor.

New prerequisite: PHPY 308.3, or permission of the instructor.

Rationale: PHPY 306 and 307 will be replaced by PHPY 308.

Regional & Urban Planning

Minor program revision

Bachelor of Arts Honours and Four-year in Regional & Urban Planning

B3: Add MATH 125.3; Add note to indicate that GEOG 235 (Earth Processes and Natural Hazards) is recommended.

B6:

- Add ECON 347.3 Design and Evaluation of Regional Economic Policy and ECON 348.3 Urban Economics as an option to AREC 432.3; Remove ECON 349.3 Regional Economic Models and Methods as an option in this group
- Add INDG 107.3, GEOG 280.3 Environmental Geography, INCC 210.3 Digital Communication and Design to list of required courses.
- Add SOC 206.3 Sociology of Communities and Community Development as an option to SOC 204.3 Rural Sociology in list of required courses.
- Remove ECON 204.6 from the list of statistics courses; remove recommended status from STAT 244.3 in same list.
- Remove POLS 326.3 in list of Political Studies courses
- Remove requirement to take 3 credit units from INDG 107.3, POLS 222.3, POLS 322.3, POLS 323.3, and POLS 422.3

B7:

- Adjust to 21 credit units
- Communities and Development stream retitled to "Communities"
 - Remove SOC 206.3 as an option to PLAN 441
 - Remove INDG 262.3 and PLAN 441 from restricted electives list
 - Add SOC 202.3, SOC 402.3, WGST 235.3, WGST 335.3, and INCC 201.3 to restricted electives list
- Design stream
 - Add INTS 111.3 and INCC 110.1 to list of ART courses
 - Add ARTH 257.3 to list of ARTH and GEOG courses
 -
- Remove Enterprise and Entrepreneurship stream
- Environmental Planning & Management stream retitled to "Environment"
 - Remove GEOG 280.3 from required courses
 - Add PLAN 329.3 as the required course
 - Remove PLAN 329.3 and PLAN 445.3 from restricted electives list

- Add ENVE 481.3 and SOC 202.3 to restricted electives list
- Create Indigenous and Northern stream
 - PLAN 445.3 required
 - Choose 9 credit units from NRTH 101.3, RRM 312.3, INDG 212.3, INDG 210.3, INDG 214.3, INDG 215.3, INDG 220.3, INDG 221.3, INDG 230.3, INDG 255.3, INDG 256.3, INDG 261.3, INDG 262.3, INDG 264.3, INDG 265.3, INDG 271.3, INDG 273.3, INDG 281.3, INDG 331.3, INDG 340.3, INDG 351.3, INDG 373.3, INDG 410.3, INDG 430.3, POLS 222.3, POLS 322.3, POLS 323.3, and POLS 422.3
- Planning Touchstones stream
 - Remove SOC 206.3 and an option to PLAN 441.3
 - Remove AREC 230.3, ENG 230.3, GEOG 280.3
 - Add PLAN 445.3
- Adjust Open Electives to 9 credit units

[Bachelor of Arts Four-year \(B.A. Four-year\) - Regional & Urban Planning](#)
[Bachelor of Arts Honours \(B.A. Honours\) - Regional & Urban Planning](#)

[B3 Science Requirement \(6 credit units\)](#)

- [MATH 104.3](#) or [MATH 110.3](#) or [MATH 121.3](#) or [MATH 125.3](#)

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

[GEOG 235](#) is **RECOMMENDED**

- *No change to list*

[B6 Major Requirement \(57– 63 credit units\)](#)

- [AREC 432.3](#) or [ECON 347.3](#) or [ECON 348.3](#) or ~~[ECON 349.3](#)~~
- [ECON 211.3](#)
- [ECON 348.3](#)
- [GEOG 222.3](#)
- [GEOG 240.3](#)
- [GEOG 280.3](#)
- [INCC 210.3](#)
- [INDG 107.3](#)
- [PLAN 341.3](#)
- [PLAN 342.3](#)
- [PLAN 343.3](#)
- [PLAN 346.3](#)
- [PLAN 390.3](#)
- [PLAN 395.3](#)
- [PLAN 442.3](#)
- [PLAN 490.3](#)
- [PLAN 495.3](#)
- [POLS 306.3](#)
- [SOC 204.3](#) or [SOC 206.3](#)

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

- [COMM 104.3](#)
- ~~[ECON 204.6](#)~~

- [EPSE 441.3](#)
- [GE 210.3](#)
- [PLSC 214.3](#)
- [PSY 233.3](#)
- [SOC 225.3](#)
- [STAT 242.3](#)
- [STAT 244.3](#) (recommended)
- [STAT 245.3](#)
- [STAT 246.3](#)

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

- [POLS 225.3](#)
- [POLS 226.3](#)
- ~~[POLS 326.3](#)~~
- [POLS 328.3](#)
- [POLS 425.3](#)

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

- ~~[INDG 107.3](#)~~
- ~~[POLS 222.3](#)~~
- ~~[POLS 322.3](#)~~
- ~~[POLS 323.3](#)~~
- ~~[POLS 422.3](#)~~

[B7 Electives Requirement \(21 ~~27~~ credit units\)](#)

Required Cognate Courses (12 credit units)

Students must complete one of the following streams of concentration:

Communities ~~& Development~~

- [PLAN 441.3](#) or ~~[SOC 206.3](#)~~

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

- [CE 329.3](#) (see Note 3 below)
- [CE 467.3](#) (see Note 3 below)
- ~~[INCC 201.3](#)~~
- ~~[INDG 262.3](#)~~
- [PLAN 350.3](#)
- ~~[PLAN 441.3](#)~~
- [PLSC 235.3](#)
- ~~[SOC 202.3](#)~~
- [SOC 203.3](#)
- [SOC 206.3](#)
- [SOC 214.3](#)
- [SOC 217.3](#)
- [SOC 309.3](#)
- [SOC 321.3](#)

- [SOC 402.3](#)
- [SOC 409.3](#)
- [WGST 235.3](#)
- [WGST 335.3](#)

Design

- [PLAN 446.3](#)

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

- [ART 111.6](#)
- [ART 112.6](#)
- [ART 113.6](#)
- [ART 136.3](#)
- [ART 141.3](#)
- [ART 161.3](#)
- [INCC 110.1](#)
- [INTS 111.3](#)

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

- [ARTH 253.3](#)
- [ARTH 255.3](#)
- [ARTH 257.3](#)
- [ARTH 260.3](#)
- [ARTH 261.3](#)
- [ARTH 324.3](#)
- [ARTH 325.3](#)
- [ARTH 329.3](#)
- [GEOG 340.3](#)

Enterprise & Entrepreneurship

- ~~[AREC 230.3](#)~~ or ~~[ENT 230.3](#)~~

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

- ~~[AREC 230.3](#)~~
- ~~[AREC 395.3](#)~~
- ~~[ENT 210.3](#)~~
- ~~[ENT 220.3](#)~~
- ~~[ENT 230.3](#)~~
- ~~[ENT 300.3](#)~~
- ~~[ENT 310.3](#)~~

Environmental Planning & Management

- ~~[GEOG 280.3](#)~~
- ~~[PLAN 329.3](#)~~

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

- [ECON 275.3](#)
- [ECON 277.3](#)
- [ENVE 481.3](#)
- [GEOG 235.3](#)
- [GEOG 322.3](#)
- [GEOG 385.3](#)
- [GEOG 386.3](#)
- [GEOG 420.3](#)
- [PLAN 329.3](#)
- [PLAN 445.3](#)
- [PLSC 235.3](#)
- [RRM 312.3](#)
- [SOC 202.3](#)

Indigenous and Northern

- [PLAN 445.3](#)

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

- [NRTH 101.3](#)
- [NRTH 321.3](#)
- [NRTH 322.3](#)
- [RRM 312.3](#)
- [INDG 212.3](#)
- [INDG 210.3](#)
- [INDG 214.3](#)
- [INDG 215.3](#)
- [INDG 220.3](#)
- [INDG 221.3](#)
- [INDG 230.3](#)
- [INDG 255.3](#)
- [INDG 256.3](#)
- [INDG 261.3](#)
- [INDG 262.3](#)
- [INDG 264.3](#)
- [INDG 265.3](#)
- [INDG 271.3](#)
- [INDG 273.3](#)
- [INDG 281.3](#)
- [INDG 331.3](#)
- [INDG 340.3](#)
- [INDG 351.3](#)
- [INDG 373.3](#)
- [INDG 410.3](#)
- [INDG 430.3](#)
- [POLS 222.3](#)
- [POLS 322.3](#)
- [POLS 323.3](#)
- [POLS 422.3](#)

Planning Touchstones

- [AREC 230.3](#) or [ENT 230.3](#)
- [GEOG 280.3](#)
- [PLAN 329.3](#)
- [PLAN 441.3](#) or [SOC 206.3](#)
- [PLAN 445.3](#)
- [PLAN 446.3](#)

Open Electives (9 45 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 the 120 credit unit Four-year or Honours degree program. Of the 120 credit units required at least 66 must be at the 200-level or higher.

Rationale:

B3: Math 125.3 (Mathematics for the Life Sciences) is an appropriate option for this program; GEOG 235 (Earth Processes and Natural Hazards provides an excellent foundation for GEOG 280, which is required.

B6:

ECON 347 and ECON 348 are added as options to AREC 432 as these address regional and urban economic issues which are relevant to the program. ECON 349 is removed as it is not anticipated to be offered in the future.

INDG 107 is now required, as this will ensure a solid foundation in Indigenous issues, which students will need to understand Indigenous issues in planning.

GEOG 280 is added as there are currently no environment courses required, and all planning students need a basic understanding of the natural environment, and environmental media, which GEOG 280 provides.

INCC 210.3 is added as students need a foundational course in information design and visual communication.

SOC 206.3 is added as an option to SOC 204 as these courses are similar, and this change provides greater flexibility.

ECON 204 is removed as this course is no longer offered; STAT 244 need not be recommended as any of the equivalent courses listed will meet the needs of students in the program.

POLS 326 is removed as students should focus on courses in public administration, public policy, and/or multi-level governance.

B7:

Communities and Development stream renamed to reflect the fact that this stream is focused on building a better understanding of communities and community dynamics.

SOC 206.3 is removed as an option to PLAN 441 as each focused stream will now be anchored by a PLAN course, designed for that particular stream.

INDG 262 is removed – will become part of the Northern & Indigenous stream.

PLAN 441 moves from an option to the required course.

INCC 201, SOC 202, SOC 402, WGST 235, and WGST 335 are added as they are relevant courses for this stream.

Design stream

INTS 111.3 and INCC 110.1 are added as students will benefit from design-based courses with an experiential focus on professional design practice

ARTH 257 is added as this course has a focus on Canadian art and architecture and significant contributors and social factors influencing Canadian architecture, which are relevant considerations in planning.

Enterprise and Entrepreneurship stream is being removed as it has had no student uptake for several years.

Environment and Planning stream renamed to removed redundancy.

GEOG 280.3 removed as it will be a required course in B6.

PLAN 329.3 now required, as the relevant core course for this stream.

ENVE 481.3 is a suitable elective in the Environment Stream as both sustainability and environmental assessment are topics of interest to RUP students entering into environmental fields.

GEOG 235 is added to this stream to allow students to learn more about the physical environment and how plans and planning policies should reflect and respond to the natural characteristics and hazards of a region, as well as social aspects. This is important due to climate change and impacts on communities.

PLAN 445 is moved to the Indigenous and Northern stream.

SOC 202 is added as a relevant course for this stream.

Indigenous and Northern stream is added. In Canada and around the world, northern and indigenous planning issues have come to the forefront of natural resource development, community development and public policy agendas. There are enough courses available to construct a separate stream on this topic. See above for required and restricted elective courses.

Planning Touchstones stream

AREC 230, ENG 230, and SOC 206 are removed as these courses are not specifically appropriate for this core-focused stream.

GEOG 280 removed as it will be a required course in B6.

PLAN 445 and PLAN 329 are added as part of the collection of course courses from the different streams.

Open electives are adjusted to 9 credit units to maintain an overall requirement of 120 credit units for the degree.

Studio Art

New course:

ART 251.3 Intermediate Printmaking

1/2 (1L-2P) Explores the conceptual, expressive and technical processes of Photo-Printmaking (Solarplates), printmaking digital applications, posterization in any print media, monotypes/monoprints in any print media, and CMYK in any print media or combined print media. Print media investigated may include Intaglio, Relief, Lithography and Screenprinting. Discussion and exposure to a variety of equipment, and materials will be included.

Prerequisite(s): ART 151.3 or ART 152.3 or ART 113.6

Note: Students with credit for ART 213.6 may not take this course for credit.

Instructor(s): John Graham, Jacob Semko, Tim Nowlin, Patrick Bulas

Rationale: The rationale of the course deletion of ART 213 as a 6 cu course is many-fold. ART 213 limited course scheduling options for many students. This issue lead to the proposed change of a design of a shorter, more intense and more compact course (3 cu). There will also be a transfer a greater concentration of teaching time in safer printmaking earlier to 2 new introductory courses shifted from the former course ART 213. Additionally, material that is to be taught in the new ART 251 (3 cu) intermediate printmaking course will be more concentrated than the former course ART 213 (6 cu). This change will maximize all complementary learning processes in printmaking at the intermediate level in one single semester as a more holistic process. This will change also give students the opportunity to more directly proceed to more creative freedom in senior printmaking courses where they will have more control in developing the direction of their art practice in any of their preferred print media of choice. ART 251 will run once in the winter semester each year and will also be offered in the spring and summer sessions. The senior printmaking courses (ART 313, ART 413, ART 423, ART 433, ART 851, ART 852) are highly effective and will remain the same. These courses offer a combined, diverse learning group of senior printmaking students. These courses inspire growth, sharing, and individual self-directed art practices based on self-motivation. Senior printmaking courses also offers significant more creative freedom to students in developing the direction of their art practice in any of their preferred print media of choice. The 6 cu senior printmaking courses ART 313, ART 413, ART 423, and ART 433 are blended courses scheduled in a single dedicated time slot for dedicated printmaking students with ART 851 or ART 852. These will remain unchanged. The prerequisites for the senior printmaking course ART 313 will be ART 252 or the former ART 213. Graduate courses ART 815 and ART 852 will continue to require special permission to enroll.

Course deletion

ART 213.6 Printmaking II

Rationale: See ART 251.3 above.

Minor course revisions

ART 313.6 Printmaking III

Prerequisite change:

Old prerequisite: ART 213.6

New prerequisite: ART 251.3

Rationale: Prerequisite change is due to the deletion of ART 213.6 and the creation of ART 251.3.

Note: Upon approval of the above changes, the Printmaking list included in all Studio Art programs and the Bachelor of Arts Double Honours in Art History and Studio Art program will be revised as follows:

Printmaking

- ~~ART 113.6~~
- [ART 151.3](#)
- [ART 152.3](#)
- ~~ART 213.6~~
- [ART 251.3](#)
- [ART 313.6](#)
- [ART 413.6](#)
- [ART 423.6](#)
- [ART 433.6](#)

Items for Information

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.

Certificate of Proficiency – Promotion and Graduation Standards

Minor Program Revisions

Promotion and Graduation information for students in Certificate of Proficiency programs

Information regarding the promotion standards for students in Certificate of Proficiency programs is currently missing from the Course and Program Catalogue, and is required per University of Saskatchewan policies. No specific CWA or credit unit ranges are given, as these programs require very few credit units overall, and vary in size from 15 to 30 credit units in total.

Graduation information for these programs is already provided in the Course and Program Catalogue, but additional information is added for clarity.

Catalogue revisions:

Academic Information & Policies

...

Promotion

The minimum requirements for continuing as a full-time student in the College of Arts & Science are based on the C.W.A. calculated from the weighted grades of all courses attempted, including failures.

...

Promotion Standards for Degree Programs

To be allowed to take more than 24 credit units in the following Fall and Winter Terms, the minimum Promotion Standards must be met.

1. The Promotion Standards are based on the total number of credit units used in the calculation of the C.W.A.
2. For students with transfer credits, the required promotion average is based upon the total credit units attempted, including transfer credits. However, the C.W.A. is calculated only on University of Saskatchewan courses attempted; grades received from other institutions are not included in the C.W.A.
3. Failing grades will be used in the calculation of the C.W.A., except where a course was repeated and a higher grade was earned.
4. Students should be aware that meeting these standards does not ensure graduation; rather, these are the minimum standards required to continue studies on a full-time basis.

Promotion Standards

<i>Credit Units Attempted</i>	<i>Minimum C.W.A.</i>
18-30	56.0%
31-60	58.0%
61 or more	60.0%

...

Required to Discontinue

<i>Credit Units Attempted</i>	<i>Minimum C.W.A.</i>
30-78	57.99% or less on last 18-48 credit units
78 or more	59.99% or less on last 48-60 credit units

Where the two evaluation procedures produce different results, the evaluation which best benefits the student will apply.

Promotion Standards for Certificate Programs

No specific promotion standards are applied to certificate programs. Students are reminded that they are required to attain an overall Cumulative Weighted Average (C.W.A.) of 62.5% on all courses counted toward the certificate in order to be eligible to graduate.

Faculty Actions: Probation and Required to Discontinue

Students who fail to meet the minimum or alternate C.W.A. will either be placed on *Probation* or be *Required to Discontinue* from the College of Arts & Science for a period of one academic year (Sept 1 to April 30). Students are notified in June.

...

Graduation

Students must apply to graduate to receive a degree **or certificate**.

Graduation Check

Once students finalize their registration for their final year, they should request a Graduation Check to ensure all graduation requirements will be completed. [Forms](#) are available online or from the Undergraduate Student Office. Deadlines to submit graduation checks are June 15 (for Fall Convocation) and November 15 (for Spring Convocation).

...

Completion of Degree Requirements

To qualify for graduation, students must complete both the degree requirements for their program type (as described in the section on Arts & Science Degree Programs) and must complete the course requirements for their major or interdisciplinary program (as described in the Programs section). The student may also have completed the requirements for a minor or recognition or both. The required Cumulative Weighted Average (C.W.A.) must be achieved.

Completion of Certificate Requirements

To qualify for graduation students must complete the requirements for their particular certificate. A minimum Cumulative Weighted Average (CWA) of 62.5% must be achieved on all courses taken which credit towards the certificate.

Required Cumulative Weighted Average (C.W.A.)

All University of Saskatchewan courses attempted which credit towards an Arts & Science degree are used in the calculation of the Overall C.W.A. and the Subject C.W.A. Failures are included if the course has not been retaken as described under Repeating Courses. Students may not use a grade from another university to replace a University of Saskatchewan grade.

The graduation standards for degrees or certificates are:

C.W.A.	C.W.A. <i>in subject*</i>	
B.A. or B.Sc. Three-year	60.0%	62.5%
B.A., B.A.&Sc., B.Mus. or B.Sc. Four-year	60.0%	62.5%
B.A., B.A.&Sc., B.F.A., M.MUS. or B.Sc. Honours	70.0%	70.0%
Certificate of Proficiency	n/a	62.5%

*"Subject" means the major subject, the minor subject, the recognition subject, and the courses listed as a "major" for an interdisciplinary program. Courses included in the subject average may appear in the Distribution Requirements or the Major Requirement of a specific program. For a Certificate of Proficiency, the "subject" includes all courses listed as part of the program requirements.

...

Economics

Minor course revisions

ECON 211.3 Intermediate Microeconomic Theory

New title: Intermediate Microeconomics

New course description: Presents the student with a formal analysis of consumer demand, producer cost, market price and quantity behaviour in competition, monopoly and oligopoly. Course content is the same as in ECON 273 but this course does not use calculus while ECON 273 does.

Change to Note:

Old Note: Students with credit for ECON 213 may not take this course for credit.

New Note: Students may only take one of ECON 211 or ECON 273 for credit.

Rationale: Editorial changes made in conjunction with the introduction of a new course, ECON 273. The title is changed to avoid a name conflict between ECON 273 and ECON 211. The note is changed, firstly, because ECON 213 has not been offered for years and, secondly, to make clear that students cannot take both ECON 211 and 273 for credit.

ECON 214.3 Intermediate Macroeconomics

Prerequisite change:

Old prerequisite: ECON 114 and ECON 211.

New prerequisite: ECON 114; and ECON 211 or ECON 273.

ECON 274.3 Intermediate Macroeconomic Theory

Prerequisite change:

Old prerequisite: ECON 114, ECON 211 and one of MATH 104, 110, 121, 123 or 125.

New prerequisite: ECON 114; ECON 211 or ECON 273; and one of MATH 104, 110, 121, 123 or 125.

ECON 311.3 Money Banking and Capital Markets

Prerequisite change:

Old prerequisite: ECON 211.

New prerequisite: ECON 211 or ECON 273.

ECON 316.3 Portfolio Theory and Investment Analysis

Prerequisite change:

Old prerequisite: ECON 114; ECON 204 (or equivalent courses in statistics); ECON 211 or ECON 213; and one of MATH 104, 110, 121, 123 or 125.

New prerequisite: ECON 114; STAT 245 (or equivalent courses in statistics); ECON 211 or ECON 273; and one of MATH 104, 110, 121, 123 or 125.

ECON 343.3 Industrial Organization

ECON 347.3 Design and Evaluation of Regional Economic Policy

ECON 348.3 Urban Economics

ECON 350.3 Economics of Public Expenditures

ECON 352.3 Economics of Taxation

ECON 354.3 International Trade and Commercial Policy

ECON 373.3 Topics in Intermediate Microeconomic Theory

Prerequisite change:

Old prerequisite: ECON 211 or ECON 213; and one of MATH 104, 110, 121, 123 or 125.

New prerequisite: ECON 211 or ECON 273; and one of MATH 104, 110, 121, 123 or 125.

ECON 376.3 Energy Economics

ECON 412.3 Welfare Economics and General Equilibrium

ECON 473.3 Mathematical Introduction to Micro Theory

Prerequisite change:

Old prerequisite: ECON 114; ECON 211 or ECON 213; and one of MATH 104, 110, 121, 123 or 125.

New prerequisite: ECON 114; ECON 211 or ECON 273; and one of MATH 104, 110, 121, 123 or 125.

ECON 433.3 Economic Evaluation Methods in Health Policy

Prerequisite change:

Old prerequisite: ECON 204 and ECON 211.

New prerequisite: STAT 245 (or equivalent courses in statistics); and ECON 211 or ECON 273.

ECON 450.3 Strategic Choice

Prerequisite change:

Old prerequisite: ECON 211 and one of MATH 104, 110, 121, 123 or 125.

New prerequisite: ECON 211 or ECON 273; and one of MATH 104, 110, 121, 123 or 125.

Rationale: Changes made in conjunction with the introduction of a new course, ECON 273. Both ECON 211 and ECON 273 are intermediate microeconomics (they differ in the way they are taught); thus, any of them can fulfill the requirement for intermediate microeconomics. Where it appears, ECON 213 is removed because it has not been offered for years and is now closed. Where it appears, ECON 204 is replaced by STAT 245, which mirrors this change in the program requirements; ECON 204 is no longer offered.

Environmental Earth Sciences

Minor Course Revision(s)

GEOG 390.3 Field Methods in Physical Geography

New title: Methods in Hydrometeorology

Prerequisite change:

Old prerequisite: GEOG 120 and 6 credit units at the 200-level in physical geography. GEOG 280 may be used as one of the prerequisites for this course

New prerequisite: GEOG 290; and one of GEOG 225, GEOG 233, or GEOG 328

Change to Note:

Old note: This one-week field camp is required for all Honours students, and recommended for all Four-years Majors, in physical geography. It is held in the first week of the Fall term. Permission of the instructor is required before May 31. Application forms are available from the Department in March. A preliminary meeting is held in March. There are costs in addition to tuition fees. Details available from the Department.

New note: There are costs in addition to tuition fees. Details available from the Department.

Rationale: The field component of this course will now be local and distributed through the normal term teaching schedule. The revised prerequisites will ensure a more consistent preparation, which will allow the instructor to spend more time on the higher level content covered in this course.

French

Minor course revision

FREN 212.3 Advanced French Expression I

Prerequisite change:

Old prerequisite: FREN 125

New prerequisite: FREN 125, École fransaskoise Grade 12, or designated (or immersion) school Grade 12.

Change to Note:

Old Note: Students who have graduated from a French Immersion program in high school are eligible to register in this class. Please contact the Department of Languages, Literatures, and Cultural Studies to receive a prerequisite override.

New Note: If it has been more than five years since graduation from a high school immersion, designated or École fransaskoise program, students may take FREN 122 and 125.

Rationale: Program revisions were approved in 2015-16 but revision of the prerequisite for FREN 212 was accidentally omitted. In the 2016-2017 Course and Program Catalogue it is specified:

Students who have completed the Immersion program in French to Grade 12, the ACFC program in French, or, the French program in a Designated School, must register in FREN 212.3 and FREN

218.3. Students having graduated from Grade 12 in an Immersion program will not be allowed to register in 100-level FREN courses for credit. Students with credit for French 30 (Grade 12 Core French) must take FREN 122.3 and FREN 125.3. Students with an additional background in French beyond the Grade 12 level must consult the Department before registering. Students who have received credit for Advanced Placement French or International Baccalaureate French may not take 100-level French language courses for credit. (Students receiving credit for IB French A2 may not take FREN 218.3). For details, please visit the Prospective Students website or contact the Department of Languages, Literatures, and Cultural Studies.

Geology

Minor Course Revision(s)

GEOL 406.3 Global Considerations

New title: Methods in Hydrometeorology

Prerequisite change:

Old prerequisite: GEOL 226, 229, 247, 258

New prerequisite: GEOL 226, 229, 245, 258, and 306

Change to laboratory requirements:

A 3-hour lab will be added to the course (change from (3L) to (3L-3P))

Rationale: Student currently need to complete a group project and present the result near the end of term. In order to do the project, they need to use a variety of software, not all of which is familiar to them. This has led to individuals and groups spending a lot of time with the instructor, interfering with their other lecture/study schedules and the same issues need to be dealt with repeatedly for separate groups of student. A scheduled lab would permit all students to be taught the necessary practical aspects and provide a time when they can work on the projects with instructor and TA support immediately available. This would be more productive and efficient than the current system. The final project presentations could also then be scheduled during normal lab time, not squeezed in between other lectures.

The prerequisite change reflect dropping the palaeontology course (GEOL 247) and adding the more relevant topic of sedimentology (245). GEOL 306 will also be added, as it will introduce students to the techniques in GIS and plate reconstructions which are appropriate for this course.

International Studies

Minor course revisions

IS 401.3 International Cooperation and Conflict

IS 402.3 International Development

Prerequisite change:

Old prerequisite: Fourth-year standing in the International Studies Program or permission of the IS Chair.

New prerequisite: IS 211.3 and IS 212.3; or permission of the IS Chair.

Rationale: IS 401 and 402 are the capstone courses of the International Studies program, and build on the material covered in IS 211 and 212. In the past students naturally took the 200-level courses first, but this revision will help to ensure that is always the case.

Philosophy

Minor course revisions

PHIL 202.3 Philosophy of Religion

PHIL 208.3 Ancient Philosophy Presocrates to Plato

PHIL 209.3 Ancient Philosophy Aristotle to Plotinus

PHIL 218.3 Existentialism

PHIL 224.3 Philosophy of Sexuality

PHIL 226.3 Environmental Philosophy

PHIL 227 Feminist Philosophy

PHIL 231 Moral Problems
PHIL 234.3 Biomedical Ethics
PHIL 235.3 Business and Professional Ethics
PHIL 236.3 Ethics and Technology
PHIL 237.3 Law and Morality
PHIL 238.3 Ethical Issues in Scientific Research
PHIL 241.3 Introduction to Symbolic Logic I
PHIL 265.3 Decision and Choice Theory
PHIL 275.3 Philosophy of Film
PHIL 285.3 Persons Minds and Bodies
PHIL 294.3 Philosophy of Human Nature

Prerequisite change:

Old prerequisite: 6 credit units in philosophy or completion of 24 credit units at the university

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 206.3 Early Modern Philosophy
PHIL 215.3 19th Century Philosophy From Romanticism to Revolution
PHIL 281.3 Theory of Knowledge
PHIL 292.3 Metaphysics Reality Existence and Change

Prerequisite change:

Old prerequisite: 6 credit units in philosophy or PHIL 120

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 210.3 Medieval Philosophy I From Rome to Baghdad and Paris
PHIL 211.3 Medieval Philosophy II Philosophy and Faith
PHIL 219.3 Phenomenology
PHIL 267.3 Philosophy for Children

Prerequisite change:

Old prerequisite: 6 credit units in philosophy

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 222.3 Philosophy in the Digital World Identities Realities Communities
PHIL 293.3 Philosophy of Death
PHIL 295.3 Philosophy of Bodies and Embodiment

Prerequisite change:

Old prerequisite: 3 credit units PHIL courses or completion of 12 credit units at the university

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 233.3 Ethical Theory

Prerequisite change:

Old prerequisite: 6 credit units in philosophy or PHIL 133

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 251.3 Philosophy of Science

Prerequisite change:

Old prerequisite: 6 credit units in philosophy or 12 credit units in science

New prerequisite: 3 credit units in philosophy or 6 credit units in science or completion of 18 credit units at the university level or permission of the instructor.

PHIL 262.3 Social and Political Philosophy

Prerequisite change:

Old prerequisite: 6 credit units in philosophy, history, or a social science

New prerequisite: 3 credit units in philosophy or completion of 18 credit units at the university level or permission of the instructor.

PHIL 271.3 Aesthetics and Philosophy of Art

PHIL 274.3 Philosophy of Music

Prerequisite change:

Old prerequisite: 6 credit units in philosophy, fine arts, or literature

New prerequisite: 3 credit units in philosophy, or 6 credit units in fine arts or LIT, or completion of 18 credit units at the university level, or permission of the instructor.

PHIL 302.3 Contemporary Philosophy of Religion

PHIL 306.3 Topics in Early Modern Philosophy

PHIL 312.3 Great Philosophers I Historical Figures

PHIL 313.3 Great Philosophers II Contemporary Figures

PHIL 314.3 Kant

PHIL 315.3 Hegel

PHIL 319.3 topics in Recent Continental Philosophy

PHIL 320.3 Studies in Philosophy

PHIL 337.3 Philosophy of Law

PHIL 396.3 Metaphysics

Prerequisite change:

Old prerequisite: 12 credit units in philosophy

New prerequisite: 3 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.

PHIL 333.3 Metaethics

Prerequisite change:

Old prerequisite: 12 credit units in philosophy including one of 231, 233, 234, or 235

New prerequisite: 3 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.

PHIL 362.3 Topics in Political Philosophy

Prerequisite change:

Old prerequisite: 12 credit units in philosophy or PHIL 262 or POLS 237

New prerequisite: 3 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.

PHIL 404.3 Advanced Problems in Philosophy and Theology

PHIL 433.3 Topics in Ethics

PHIL 481.3 Topics in Epistemology

PHIL 492.3 Topics in Metaphysics

Prerequisite change:

Old prerequisite: 12 credit units in philosophy

New prerequisite: 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.

PHIL 418.3 Advanced Analytic Philosophy

PHIL 446.3 Philosophy of Language

Prerequisite change:

Old prerequisite: PHIL 241 or CMPT 260 and 9 credit units in philosophy

New prerequisite: 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.

PHIL 451.3 Topics in History and Philosophy of Science

PHIL 455.3 Philosophy of Social Science

Prerequisite change:

Old prerequisite: PHIL 251 or 12 credit units in philosophy or 6 credit units in philosophy and 12 credit units in a science, social science, or history

New prerequisite: 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.

PHIL 412.3 Philosophy of Thomas Aquinas I

Prerequisite change:

Old prerequisite: 18 credit units in philosophy

New prerequisite: 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.

PHIL 420.3 Topics in Philosophy

Prerequisite change:

Old prerequisite: 15 credit units in philosophy

New prerequisite: 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.

PHIL 485.3 Topics in Philosophy of Mind

Prerequisite change:

Old prerequisite: 12 credit units in philosophy or PHIL 285

New prerequisite: 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.

Psychology

Minor course revisions

PSY 480.3 Aboriginal Mental Health and Illness

New Subject Label: ANTH

New title: Indigenous Peoples and Mental Health Anthropological and Related Perspectives

New course description: The goals of this seminar course are twofold: first, to provide detailed knowledge about contemporary Indigenous mental health issues; second, to develop a critical perspective on the theoretical and methodological issues pertaining to research in Indigenous mental health. Material from the fields of anthropology, psychology, and psychiatry; will be integrated to provide an interdisciplinary perspective. Examples will be drawn from both Canada and internationally.

Prerequisite change:

Old prerequisite: 6 credit units in a 300-level Psychology, Anthropology, Native Studies or Sociology.

New prerequisite: 3 credit units in 300-level Anthropology, or permission of the instructor.

Add new Note: Students may not receive credit for both PSY 480 and ANTH 480.

Rationale: The instructor, James Waldram - the original designer of the course and the only one to ever teach it - has moved full-time into the Department of Archaeology and Anthropology. The course reflects his area of expertise. The course was designed to be inter-disciplinary, but always had a strong anthropological content. Other readings are by anthropologically-influenced scholars in cross-cultural psychology and cultural psychiatry.

The changes to the course title, description, prerequisites and notes reflect the change from PSY to ANTH.

Regional and Urban Planning

Minor course revisions

PLAN 343.3 Legal Issues in Planning

Prerequisite change:

Old prerequisite: 12 credit units in GEOG

New prerequisite: GEOG 240

Rationale: GEOG 240 (Sustainable Cities and Regions) is the prerequisite for all other 300-level PLAN courses, and is the appropriate gateway to these courses.

Second Degree Programs – Arts & Science and Law

Minor Program Revisions

Second degree in Arts & Science in combination with degree in Law

The list of courses that students in the College of Law are allowed to take for elective credit in Arts & Science has not been updated for more than a decade, and as a result many of the listed courses are either closed or not regularly offered. The change to an inclusive list of courses will automatically allow new, appropriate, LAW courses to be used, while continuing to exclude those courses that are specifically related to teaching the skills of professional practice as a lawyer.

Students are still only allowed to use these courses for elective credit, and this option is still reserved for students who have been admitted to the College of Law.

Catalogue revisions:

Academic Information & Policies

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Second Degree Programs

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Arts & Science and Law

The Second Degree Program in Arts & Science and Law, leading to the B.A., B.A.&Sc., **B.F.A.**, or B.Sc. and J.D., is available. Up to 18 credit units of **LAW courses** ~~the following courses in the law program~~ may be counted as senior electives in the College of Arts & Science by students following the Second Degree Program, **except for the LAW courses which are primarily skills-based courses. Excluded courses include:**

- LAW 384.3
- LAW 430.3
- LAW 439.3
- All Moots, including LAW 427.3, LAW 441.3, LAW 447.3, LAW 448.3, LAW 450.3, LAW 459.3, and LAW 464.3
- All practicums, including LAW 492.12

~~LAW 340.3, LAW 390.3, LAW 393.3, LAW 394.3, LAW 395.3, LAW 425.3, LAW 431.3, LAW 432.3, LAW 433.3, LAW 436.3, LAW 437.3, LAW 444.3, LAW 457.3, LAW 460.3, LAW 462.3, LAW 474.3, LAW 486.3.~~

Students are encouraged to consult an Advisor in the College of Arts & Science to confirm that a particular LAW course will be counted toward their Arts & Science degree requirements.

The College of Arts & Science will use up to the first 18 credit units of eligible LAW courses successfully completed to fulfill elective credit in the Arts & Science degree, and the grades from these all of the courses attempted from this list will be used in the calculation of the Arts & Science average.

Students must be admitted to the College of Law to be eligible for the J.D.

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Studio Art

Course split

ART 113.6 Printmaking I Foundation

into

ART 151.3 Introductory Printmaking I

1/2 (1L-2P) Introduces and explores the conceptual, expressive and technical processes of two printmaking media of Relief and Intaglio. Discussion and exposure to a variety of equipment, materials and media will be included.

Note: Students with credit for ART 113 may not take this course for credit.

Instructor(s): John Graham, Jacob Semko, Patrick Bulas, Tim Nowlin

and

ART 152.3 Introductory Printmaking II

1/2 (1L-2P) Introduces and explores the conceptual, expressive and technical processes of two printmaking media of Lithography and Screenprinting. Discussion and exposure to a variety of equipment, materials and media will be included.

Note: Students with credit for ART 113 may not take this course for credit.

Instructor(s): John Graham, Jacob Semko, Patrick Bulas, Tim Nowlin

Rationale: The introductory course Art113 (6cu) is being split because many students have requested that printmaking offer 3cu introductory course scheduling options for their required course electives. The new 3cu courses Art151 and Art152 will provide significantly more scheduling flexibility options for students each term. These 2 new introductory courses are complementary experiences and will be offered in both the fall and winter terms to distribute the workload around all studio areas in printmaking. They will also run in the spring and summer sessions. The new introductory courses will also cover a deeper range of printmaking fundamentals, procedures and methods. There will be an intensification of material taught to be taught in Art151.3 and 152.3 to give students more timely foundation printmaking experiences to more confidently proceed to upper divisional courses such as the new intermediary course Art251. These 2 new revamped introductory courses will be intense, highly structured and yet offer unique creative growth opportunities to students when they are the most impressionable. Introductory printmaking students are very receptive to new experiential learning experiences in artmaking while learning new skills and knowledge. These new course changes are intended to positively impact three introductory experiences and to also impact choices many students will make to proceed with printmaking courses. There are no prerequisites for Art151 or Art152.

The materials fee for each course is \$50.

College of Graduate Studies and Research (CGSR)

The curricular change listed below has been approved by the College of Graduate Studies and Research and is submitted to the University Course Challenge for approval.

University Course Challenge – DEC 2016

Program Modification:

Master of Governance and Entrepreneurship in Northern and Indigenous Areas

Degree Requirements

GENI students are required to complete a minimum of 36 credit units (equivalent to 120 ECTS at UiT). The required elements include required course work, electives, an internship, a project and the 990 seminars. Students must complete the following required courses:

- [GSR 960.0](#)
- [GSR 961.0](#) if research involves human subjects
- [GSR 962.0](#) if research involves animal subjects
- [NORD 835.2](#) Communication I: Academic and Professional Writing
- [NORD 857.4](#) Northern Resource Economics and Policy
- [NORD 838.2](#) Communication II: Negotiations and Consultations
- [NORD 847.4](#) Circumpolar Innovation and Entrepreneurship
- STV-3040 Northern Governance (UiT) (equivalent to [POLS 855.4](#))
- IND-3002 Research and Planning Methods for the North (UiT) (equivalent to [POLS 858.4](#))
- [NORD 860.4](#) Internship (UofS) or IND-3001 Internship (UiT)
- 12 credit units of ~~restricted~~ electives subject to approval from the Program Director
- [NORD 992.0](#) Project (UofS), IND-3901 (UiT) (Students must maintain continuous registration in [NORD 992.0](#) through the program. Students will register in IND-3901 while completing project work.)
- [NORD 990.0](#) Seminars (Students must maintain continuous registration in this course through the program)

~~Program Electives~~

~~Students must also choose elective courses subject to approval, availability and permission from the Program Director. Students should work with the Graduate Chair to identify an appropriate elective.~~

~~• Group A Restricted Electives~~

~~○ Students will choose from the following courses:~~

- ~~▪ [NS 810.3](#) "Aboriginal Self Determination Through Mitho Pimachesowin"~~
- ~~▪ the UiT equivalent course titled "Landscape, language and culture: The social meaning of place" (tentative title)~~

~~• Group B Electives~~

~~○ Students will choose 9 CU/20 ECTS from the following list of courses offered at USask or at UiT. At University of Saskatchewan students can choose from the following list:~~

- ~~▪ [JSGS 863.3](#): Aboriginal Peoples & Public Policy~~
- ~~▪ [JSGS 849.3](#): Social Economy and Public Policy~~
- ~~▪ [ENVS 825.3](#) Water Resource Management in Cold Regions~~
- ~~▪ [ENVS 898.3](#): Co-Management of Northern Ecosystems and Natural Resources~~
- ~~▪ [LAW 819.3](#): Indigenous Peoples of International and Comparative Law~~
- ~~▪ [BIO 3004](#) (UiT)~~

Rationale: Allow more flexibility in options for program completion.
Approved on December 2, 2016.

Correction to CHEP 818, November, 2016 University Course Challenge:

Please note the following additional information in red:

CHEP 818.3: Advanced Qualitative Health Research Methods in Population and Public Health

This advanced course considers the perspective of qualitative health research as a distinct discipline, with methods that have been developed or adapted for this orientation. Students will work with one qualitative methodology of their choice throughout the term to consider its location in population and public health research.

Prerequisite: **One of the following courses:** ERES 845, PUBH 846, JSGS 851, NURS 893, PSY 809, or permission of the instructor.

Note: Students with credit for NURS 896 will not receive credit for this course.

Rationale: NURS 896 was approved as mutually exclusive with CHEP 818 at the college level, and was simply missed being included in the original proposal submission.

College of Education, University Course Challenge December, 2016:

Curricular changes for the direct-entry B.Ed. program received final approval from APC on November 16, 2016. After consultation with the College of Arts and Science, several new changes to the Secondary teaching areas of Mathematics, Physics, Chemistry, and Biology have been approved by the College of Education since that time. These new changes have been highlighted in yellow below and are being proposed for approval here:

B.Ed. Direct Entry Program

Secondary Program Requirements

Teacher candidates intending to become certified to teach youth in secondary schools must complete the following program requirements:

Years 1 & 2 (60 credit units)

- [EDLC 101.0](#)
- [EDLC 102.0](#)
- [EDLC 201.0](#)
- [EDLC 202.0](#)

Choose 3 credit units from the following:

- [EFDT 101.3](#)

Choose 3 credit units from the following:

- [ECUR 165.3](#)

Choose 3 credit units from the following:

- [EPSE 202.3](#)

Choose 3 credit units from the following:

- [EFDT 265.3](#)
- [ECUR 265.3](#)

Choose 6 credit units of junior level English (junior level) from the following (except if English is a

Teaching Area):

- [ENG 110.6](#)
- [ENG 111.3](#)
- [ENG 112.3](#)
- [ENG 113.3](#)
- [ENG 114.3](#)

Choose 3 credit units of Indigenous Studies from the following (except if Social Sciences/Social Studies or Indigenous Studies is a Teaching Area):

- 100-Level, 200-Level, 300-Level or 400-Level INDG Courses
- SOC 203.3
- SOC 219.3
- SOC 320.3
- SOC 241.3

Choose 3 credit units of electives (Social Studies/Social Sciences and Indigenous Studies Teaching Areas only):

- 100- to 400-level Open Electives
- Must be completed by 3 or 6 credit unit courses

Choose 6 credit units of electives (English Teaching Areas only):

- 100- to 400-level Open Electives
- Must be completed by 3 or 6 credit unit courses

Teaching Areas

Teacher candidates are required to complete a specific number of credit units in at least two teaching areas (disciplinary fields) that are tightly aligned with Saskatchewan pre-Kindergarten to grade twelve curriculum areas.

Teaching areas must be chosen from a defined set of subjects and courses, approved by both the College of Education and the Saskatchewan Professional Teachers Regulatory Board (SPTRB).

All secondary option students must complete 24 credit units in Teaching Area 1 and 15 credit units in Teaching Area 2.

Secondary - Teaching Area 1 (24 credit units)

Biology

Prerequisite: Biology 30 or equivalent.

Please note that PLSC 214.3 cannot be used to fulfill this requirement.

Choose 6 credit units from the following junior level Biology courses:

- 100-Level BIOL Courses
- BIOL 120.3
- BIOL 121.3

Choose 9 credit units from the following 200-level ~~senior level~~ Biology courses:

- BIOL 222.3
- BIOL 224.3
- BIOL 226.3

- BIOL 228.3

- 200-Level, 300-Level or 400-Level PLSC Courses
- BIOL 222.3
- BIOL 224.3/BMSC 224.3
- BIOL 228.3
- BIOL 301.3
- BIOL 302.3
- BIOL 314.3 or NRTH 312.3 (formerly BIOL 312.3)
- BIOL 318.3
- BIOL 324.3
- BIOL 325.3
- BIOL 326.3
- BIOL 350.3
- BIOL 361.3
- BIOL 365.3
- BIOL 373.3
- BIOL 410.3
- BIOL 412.3
- BIOL 424.3
- BIOL 436.3
- BIOL 451.3
- BIOL 455.3
- BIOL 458.3
- BIOL 466.3
- BIOL 470.3
- BIOL 475.3
- BIOL 480.3
- BIOL 481.6
- PHPY 401.3
- PHPY 405.3

Choose 3 credit units from the following senior level Biology courses:

- 200-, 300-, 400-level BIOL courses
(3 credit units of 200-level BIOL from above: BIOL 222.3, BIOL 224.3, BIOL 226.3 or BIOL 228.3 are recommended.)

Choose 9 6 credit units from the following senior level Biology courses:

- 300-Level or 400-Level BIOL Courses
- 200-Level, 300-Level or 400-Level ACB Courses
- 200-Level, 300-Level or 400-Level BIOG Courses
- 200-Level, 300-Level or 400-Level BIOL Courses
- 200-Level, 300-Level or 400-Level BMSC Courses
- 200-Level, 300-Level or 400-Level HSC Courses
- 200-Level, 300-Level or 400-Level MCIM Courses
- HSC 350.3
- PHPY 301.3
- PHPY 302.3

- PHPY 303.3
- PHPY 306.3
- PHPY 403.3
- PHPY 432.6

Chemistry

Prerequisites: Chemistry 30 and Mathematics B30 or Foundations of Mathematics 30 or Pre-Calculus 30 (or equivalents).

Choose 6 credit units from the following junior level Chemistry courses:

- 100-Level CHEM Courses
- CHEM 112.3
- CHEM 115.3

Choose 18 credit units from the following senior level Chemistry courses:

- A course in Analytical Chemistry or Inorganic Chemistry is recommended.
- 200-Level, 300-Level or 400-Level BIOC Courses
- 200-Level, 300-Level or 400-Level BMSC Courses
- 200-Level, 300-Level or 400-Level CHEM Courses
- PHPY 302.3
- PHPY 304.3
- PHPY 305.3
- PHPY 306.3
- PHPY 307.3
- PHPY 432.6
- TOX 300.3

Choose 6 credit units from the following 200-Level Chemistry courses:

- CHEM 231.3
- CHEM 250.3

Choose 6 credit units from the following senior level Chemistry courses:

- 200-Level, 300-Level or 400-Level CHEM Courses

Choose 6 credit units from the following senior level Chemistry courses:

- 300-Level or 400-Level CHEM Courses

Drama

Please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

Choose 24 credit units from the following Drama courses:

- 100-Level, 200-Level, 300-Level or 400-Level DRAM Courses

English Language Arts

Choose 6 credit units from the following junior level English courses:

- [100-Level ENG Courses](#)

Choose 18 credit units from the following senior level English courses:

- [200-Level, 300-Level or 400-Level ENG Courses](#)
- [INDG 270.6](#)

Mathematics

Prerequisite: *Mathematics B30 and C30 and a 60% score in the Math Placement Test; or Pre-Calculus 30 and a 60% score in the Math Placement Test; or MATH 102 or MATH 104.*

3 credit units of junior level Mathematics:

- [MATH 110.3](#)

Choose 3 credit units from the following junior level Mathematics or Statistics courses:

- [100-Level MATH Courses](#)
- [100-Level STAT Courses](#)
- [MATH 116.3](#)
- [STAT 103.3](#)

Choose **18-12** credit units from the following senior level Mathematics or Statistics courses:

- [200-Level, 300-Level or 400-Level MATH Courses](#)
- [200-Level, 300-Level or 400-Level STAT Courses](#)
- [ECON 204.3](#)
- [ECON 306.3](#)
- [ECON 450.3](#)
- [GEOG 302.3](#)
- [PLSC 214.3](#)
- [PSY 233.3](#)
- [PSY 234.3](#)
- [SOC 225.3](#)
- [SOC 325.3](#)

Choose 6 credit units from the following senior level Mathematics or Statistics courses:

- [300-Level or 400-Level MATH Courses](#)
- [300-Level or 400-Level STAT Courses](#)

Modern Languages

Must choose 24 credit units of Cree or French.

Choose 6 credit units from the following junior level Cree or French courses:

- [FREN 122.3](#) and [FREN 125.3](#) (or approved equivalents)
- [FREN 212.3](#) and [FREN 218.3](#) (applies to Bilingual/Immersion students)
- [100-Level CREE Courses](#)

Choose 18 credit units from the following senior level Cree or French courses:

- [100-Level, 200-Level, 300-Level or 400-Level CREE Courses](#)
- [200-Level, 300-Level or 400-Level FREN Courses](#)

Indigenous Studies

Teacher candidates may choose Indigenous Studies OR Social Sciences/Social Studies as a Teaching Area, but cannot choose both.

Choose 6 credit units from the following Indigenous Studies courses:

- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)

Choose an additional 18 credit units from the following Indigenous Studies courses:

- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)
- [HIST 263.6](#) (formerly HIST 222)
- [HIST 264.3](#)
- [HIST 265.3](#)
- [POLS 222.3](#)
- [POLS 322.3](#)
- [POLS 323.3](#)
- [SOC 219.3](#)
- [SOC 319.3](#)
- [SOC 320.3](#)
- [SOC 341.3](#)

Within the 18 credit units, students may choose up to 6 credit units of the following:

[CREE 101.6](#)
[CREE 110.3](#)
[CREE 120.6](#)

Within the 18 credit units, students may choose up to 3 credit units of the following:

[ARTH 252.6](#)
[ARTH 253.3](#)
[ARTH 255.3](#)
[ARTH 323.3](#)
[ARTH 358.3](#)
[ARTH 340.3](#)
[ARTH 345.3](#)
[ARTH 355.3](#)
[ARTH 418.3](#)
[ARTH 455.3](#)

Physical Education - Teaching Area 1

To become a secondary physical education teacher, contact the College of Kinesiology for details on the 5-year combined B.Sc.(Kin.)/B.Ed. program. Graduates of the B.Sc. in Kinesiology can be admitted to the direct-entry program and use their best 24 credit units of 3 or 6 credit unit Kinesiology courses to comprise their first teaching area.

Physics

Prerequisite: *Physics 30 and (Mathematics B30 and C30; or Foundations of Mathematics 30; or Pre-Calculus 30)*

Note: Acquiring a Teaching Area 1 or Teaching Area II in Physics requires a number of Mathematics courses as pre-requisites. It is recommended that students pair teaching areas in Physics with Mathematics in order to acquire all of the required courses within the minimum 120 credit units required for the degree.

Choose 6 credit units of junior level Physics courses:

- 100-Level PHYS Courses
- PHYS 115.3
- PHYS 117.3 or PHYS 125.3

Choose ~~18~~ 12 credit units from the following Physics or Astronomy courses:

- 100-Level, 200-Level, 300-Level or 400-Level ASTR Courses
- 200-Level, 300-Level or 400-Level PHYS Courses
- GEOL 282.3
- GEOL 334.3
- GEOL 335.3
- 100-Level, 200-Level, 300-Level or 400-level ASTR courses
- 200-Level, 300-Level or 400-level PHYS courses
- EP 202.3, EP 228.3, EP 253.1, EP 325.3, EP 317.3, EP 353.2, EP 354.2, EP 370.3, EP 417.3, EP 421.3, EP 428.3.

Choose 6 credit units from the following senior level Physics or Astronomy courses:

- 300-Level or 400-Level ASTR courses
- 300-Level or 400-Level PHYS courses
- EP 325.3, EP 317.3, EP 353.2, EP 354.2, EP 370.3, EP 417.3, EP 421.3, EP 428.3.

Social Sciences/Social Studies

Teacher candidates may choose Social Sciences/Social Studies OR Indigenous Studies as a Teaching Area, but cannot choose both.

Any 100-level course taken after the first 6 credit units will be counted as a senior course.

At least 6 credit units of the total 18 credit units must include Canadian content.

- HIST courses with Canadian content are: HIST 151.3, HIST 152.3, HIST 253.3, HIST 255.3, HIST 256.3, HIST 257.3, HIST 258.3, HIST 259.3, HIST 260.3, HIST 263.6, HIST 264.3, HIST 265.3, HIST 266.3, HIST 310.3, HIST 350.3, HIST 353.3, HIST 361.3, HIST 362.3, HIST 363.3, HIST 364.3, HIST 365.3, HIST 410.3, HIST 450.6, HIST 466.3, HIST 492.6;
- ECON course with Canadian content is: ECON 231.3; GEOG courses with Canadian content are: GEOG 202.3, GEOG 204.3, GEOG 381.3, GEOG 386.3, PLAN 342.3, PLAN 343.3, PLAN 442.3;
- POLS courses with Canadian content are: POLS 204.3, POLS 205.3, POLS 222.3, POLS 225.3, POLS 226.3, POLS 303.3, POLS 304.3, POLS 305.3, POLS

[306.3](#), [POLS 307.3](#), [POLS 322.3](#), [POLS 323.3](#), [POLS 349.3](#), [POLS 375.3](#), [POLS 404.3](#), [POLS 405.3](#), [POLS 422.3](#), [POLS 425.3](#);

- SOC courses with Canadian content are: [SOC 203.3](#), [SOC 204.3](#), [SOC 219.3](#), [SOC 227.6](#), [SOC 244.3](#), [SOC 246.3](#), [SOC 319.3](#), [SOC 341.3](#);
- all INDG courses are acceptable except [INDG 221.3](#) and [INDG 272.3](#).

Choose 6 credit units from the following Indigenous Studies courses:

- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)
- [SOC 203.3](#)
- [SOC 219.3](#)
- [SOC 320.3](#)
- [SOC 341.3](#)

Choose 6 credit units from the following History courses:

- [100-Level, 200-Level, 300-Level or 400-Level HIST Courses](#)
- [INDG 280.6](#)
- [INDG 281.3](#)

Choose 12 credit units from the following Social Sciences courses:

- [100-Level, 200-Level, 300-Level or 400-Level ANTH Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ECON Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level HIST Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level POLS Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level PSY Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level RLST Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level SOC Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level WGST Courses](#)
- [CLAS 110.3](#)
- [CLAS 111.3](#)
- [CLAS 220.3](#)
- [CLAS 225.3](#)
- [CLAS 240.3](#)
- [CLAS 242.3](#)
- [CLAS 247.3](#)
- [CLAS 248.3](#)
- [GEOG 130.3](#)
- [GEOG 202.3](#)
- [GEOG 204.3](#)
- [GEOG 208.3](#)
- [GEOG 240.3](#)
- [GEOG 340.3](#)
- [GEOG 364.3](#)
- [GEOG 381.3](#)
- [GEOG 385.3](#)
- [GEOG 386.3](#)
- [GEOG 486.3](#)
- [GEOG 491.3](#)

- [PLAN 341.3](#)
- [PLAN 342.3](#)
- [PLAN 343.3](#)
- [PLAN 346.3](#)
- [PLAN 350.3](#)
- [PLAN 392.3](#)
- [PLAN 442.3](#)
- [PLAN 446.3](#)

Visual Arts

Please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

Choose 6 credit units from the following Art History courses:

- [100-Level, 200-Level, 300-Level or 400-Level ARTH Courses](#)

Choose 18 credit units from the following Art or Art History courses:

- [100-Level, 200-Level, 300-Level or 400-Level ART Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ARTH Courses](#)

Must include 2 different studio areas (painting, drawing, printmaking, extended media, sculpture, and/or photography) within ART:

Painting: [ART 111.6](#), [ART 211.6](#), [ART 311.6](#), [ART 411.6](#), [ART 421.6](#), [ART 431.6](#)

Drawing: [ART 112.6](#), [ART 212.6](#), [ART 312.6](#), [ART 412.6](#), [ART 422.6](#)

Printmaking: [ART 113.6](#), [ART 213.6](#), [ART 313.6](#), [ART 413.6](#), [ART 423.6](#), [ART 433.6](#)

Extended Media: [ART 136.3](#), [ART 236.6](#), [ART 237.3](#), [ART 338.3](#), [ART 339.3](#), [ART 438.3](#), [ART 439.3](#)

Sculpture: [ART 141.3](#), [ART 241.3](#), [ART 242.3](#), [ART 341.3](#), [ART 342.3](#), [ART 441.3](#), [ART 442.3](#)

Photography: [ART 161.3](#), [ART 216.6](#), [ART 235.3](#), [ART 316.6](#), [ART 416.6](#), [ART 426.6](#), [ART 436.6](#)

Secondary - Teaching Area 2 (15 credit units)

Biology

Prerequisite: Biology 30 or equivalent.

Please note that [PLSC 214.3](#) cannot be used to fulfill this requirement.

Choose 6 credit units from the following senior level Biology courses:

- [100-Level BIOL Courses](#)
- [BIOL 120.3](#)
- [BIOL 121.3](#)

Please note that [PLSC 214.3](#) cannot be used to fulfill this requirement.

Choose 6 credit units from the following **200-Level ~~senior level~~ Biology courses:**

- [200-Level, 300-Level or 400-Level PLSC Courses](#)
- [BIOL 222.3](#)
- [BIOL 224.3](#)/[BMSC 224.3](#)
- [BIOL 226.3](#)

- **BIOL 228.3**
- BIOL 301.3
- BIOL 302.3
- BIOL 314.3 or NRTH 312.3 (formerly BIOL 312.3)
- BIOL 318.3
- BIOL 324.3
- BIOL 325.3
- BIOL 326.3
- BIOL 350.3
- BIOL 361.3
- BIOL 365.3
- BIOL 373.3
- BIOL 410.3
- BIOL 412.3
- BIOL 424.3
- BIOL 436.3
- BIOL 451.3
- BIOL 455.3
- BIOL 458.3
- BIOL 466.3
- BIOL 470.3
- BIOL 475.3
- BIOL 480.3
- BIOL 481.6
- PHPY 401.3
- PHPY 405.3

Choose 3 credit units from the following senior level Biology courses:

- 200-Level, 300-Level or 400-Level ACB Courses
- 200-Level, 300-Level or 400-Level BIOC Courses
- **200-Level, 300-Level or 400-Level BIOL Courses**
- 200-Level, 300-Level or 400-Level BMSC Courses
- 200-Level, 300-Level or 400-Level HSC Courses
- 200-Level, 300-Level or 400-Level MCIM Courses
- HSC 350.3
- PHPY 301.3
- PHPY 302.3
- PHPY 303.3
- PHPY 306.3
- PHPY 403.3
- PHPY 432.6

Chemistry

Prerequisites: Chemistry 30 and Mathematics B30 or Foundations of Mathematics 30 or Pre-Calculus 30 (or equivalents).

Choose 6 credit units of junior level Chemistry courses from the following:

- 100-Level CHEM Courses
- **CHEM 112.3**

- CHEM 115.3

Choose ~~9~~ **6** credit units of **200-Level senior level** Chemistry courses from the following:

- ~~A course in Analytical Chemistry or Inorganic Chemistry is recommended.~~
- ~~200-Level, 300-Level or 400-Level BIOC Courses~~
- ~~200-Level, 300-Level or 400-Level BMSC Courses~~
- ~~200-Level, 300-Level or 400-Level CHEM Courses~~
- ~~PHPY 302.3~~
- ~~PHPY 304.3~~
- ~~PHPY 305.3~~
- ~~PHPY 306.3~~
- ~~PHPY 307.3~~
- ~~PHPY 432.6~~
- ~~TOX 300.3~~

- CHEM 231.3
- CHEM 250.3

Choose 3 credit units of senior level Chemistry courses from the following:

- 200-Level, 300-Level or 400-Level CHEM Courses

Drama

Please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

Choose 15 credit units of Drama courses from the following:

- 100-Level, 200-Level, 300-Level or 400-Level DRAM Courses

English Language Arts

Choose 6 credit units of junior level English courses from the following:

- 100-Level ENG Courses

Choose 9 credit units of senior level English courses from the following:

- 200-Level, 300-Level or 400-Level ENG Courses
- INDG 270.6

Mathematics

Prerequisite: Mathematics B30 and C30 and a 60% score in the Math Placement Test; or Pre-Calculus 30 and a 60% score in the Math Placement Test; or MATH 102 or MATH 104.

Choose ~~6~~ **3** credit units from the following junior level Mathematics or Statistics courses:

- 100-Level MATH Courses
- 100-Level STAT Courses

- **MATH 110.3**

Choose 3 credit units from the following junior level Mathematics or Statistics:

- **MATH 116.3**
- **STAT 103.3**

Choose 9-6 credit units from the following senior level Mathematics or Statistics courses:

- 200-Level, 300-Level or 400-Level MATH Courses
- 200-Level, 300-Level or 400-Level STAT Courses
- AREG 361.3
- ECON 204.3
- ECON 306.3
- ECON 450.3
- EPSE 441.3
- GEOG 302.3
- PLSC 214.3
- PSY 233.3
- PSY 234.3
- SOC 225.3
- SOC 325.3

Choose 3 credit units from the following senior level Mathematics or Statistics courses:

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses

Modern Languages

Must choose 15 credit units of Cree or French.

Choose 6 credit units of junior level Cree or French courses from the following:

- 100-Level CREE Courses
- FREN 122.3 and FREN 125.3 (or approved equivalents)
- FREN 212.3 and FREN 218.3 (applies to Bilingual/Immersion students)

Choose 9 credit units of senior level Cree or French courses from the following:

- 100-Level, 200-Level, 300-Level or 400-Level CREE Courses
- 200-Level, 300-Level or 400-Level FREN Courses

Indigenous Studies

Teacher candidates may choose Indigenous Studies OR Social Sciences/Social Studies as a Teaching Area, but cannot choose both.

Choose 6 credit units of Indigenous Studies courses from the following:

- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)

Choose an additional 9 credit units of Indigenous Studies courses from the following:

- [200-Level, 300-Level or 400-Level INDG Courses](#)
- [HIST 263.6](#) (formerly HIST 222)
- [HIST 264.3](#)
- [HIST 265.3](#)
- [POLS 222.3](#)
- [POLS 322.3](#)
- [POLS 323.3](#)
- [SOC 219.3](#)
- [SOC 319.3](#)
- [SOC 320.3](#)
- [SOC 341.3](#)

Within the 9 credit units, students may choose up to 6 credit units of the following:

[CREE 101.6](#)
[CREE 110.3](#)
[CREE 120.6](#)

Within the 9 credit units, students may choose up to 3 credit units of the following:

[ARTH 252.6](#)
[ARTH 253.3](#)
[ARTH 255.3](#)
[ARTH 323.3](#)
[ARTH 358.3](#)
[ARTH 340.3](#)
[ARTH 345.3](#)
[ARTH 355.3](#)
[ARTH 418.3](#)
[ARTH 455.3](#)

Physics

Prerequisite: *Physics 30 and (Mathematics B30 and C30; or Foundations of Mathematics 30; or Pre-Calculus 30)*

Note: Acquiring a Teaching Area 1 or Teaching Area II in Physics requires a number of Mathematics courses as pre-requisites. It is recommended that students pair teaching areas in Physics with Mathematics in order to acquire all of the required courses within the minimum 120 credit units required for the degree.

Choose 6 credit units of **junior level** Physics courses from the following:

- [100-Level PHYS Courses](#)
- **PHYS 115.3**
- **PHYS 117.3 or PHYS 125.3**

Choose **9 6** credit units of Physics or Astronomy courses from the following:

- 200-Level, 300-Level or 400-Level PHYS Courses
- 100-Level, 200-Level, 300-Level or 400-Level ASTR Courses
- GEOL 282.3
- GEOL 334.3
- GEOL 335.3
- EP 202.3, EP 228.3, EP 253.1, EP 325.3, EP 317.3, EP 353.2, EP 354.2, EP 370.3, EP 417.3, EP 421.3, EP 428.3.

Choose 3 credit units of senior level Physics or Astronomy courses from the following:

- 300-Level or 400-Level ASTR courses
- 300 or 400-Level PHYS courses
- EP 325.3, EP 317.3, EP 353.2, EP 354.2, EP 370.3, EP 417.3, EP 421.3, EP 428.3.

Social Sciences/Social Studies

Teacher candidates may choose Social Sciences/Social Studies OR Indigenous Studies as a Teaching Area, but cannot choose both.

Any 100-level course taken after the first 6 credit units will be counted as a senior course.

Also note: At least 6 credit units of the total 15 credit units must include Canadian content.

- HIST courses with Canadian content are: HIST 151.3, HIST 152.3, HIST 253.3, HIST 255.3, HIST 255.3, HIST 256.3, HIST 257.3, HIST 258.3, HIST 259.3, HIST 260.3, HIST 263.6, HIST 264.3, HIST 265.3, HIST 266.3, HIST 310.3, HIST 350.3, HIST 353.3, HIST 361.3, HIST 362.3, HIST 363.3, HIST 364.3, HIST 365.3, HIST 410.3, HIST 450.6, HIST 466.3, HIST 492.6;
- ECON course with Canadian content is: ECON 231.3;
- GEOG courses with Canadian content are: GEOG 202.3, GEOG 204.3, GEOG 381.3, GEOG 386.3, PLAN 342.3, PLAN 343.3, PLAN 442.3;
- POLS courses with Canadian content are: POLS 204.3, POLS 205.3, POLS 222.3, POLS 225.3, POLS 226.3, POLS 303.3, POLS 304.3, POLS 305.3, POLS 306.3, POLS 307.3, POLS 322.3, POLS 323.3, POLS 349.3, POLS 375.3, POLS 404.3, POLS 405.3, POLS 422.3, POLS 425.3;
- SOC courses with Canadian content are: SOC 203.3, SOC 204.3, SOC 219.3, SOC 227.6, SOC 244.3, SOC 246.3, SOC 319.4;
- all INDG courses are acceptable except INDG 221.3 and INDG 272.3.

Choose 6 credit units of Indigenous Studies courses from the following:

- 100-Level, 200-Level, 300-Level or 400-Level INDG Courses
- SOC 203.3
- SOC 219.3
- SOC 320.3
- SOC 341.3

Choose 6 credit units of History courses from the following:

- 100-Level, 200-Level, 300-Level or 400-Level HIST Courses
- INDG 280.6
- INDG 281.3

Choose 3 credit units of Social Sciences courses from the following:

- [100-Level, 200-Level, 300-Level or 400-Level ANTH Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ECON Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level HIST Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level INDG Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level POLS Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level PSY Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level RLST Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level SOC Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level WGST Courses](#)
- [CLAS 110.3](#)
- [CLAS 111.3](#)
- [CLAS 220.3](#)
- [CLAS 225.3](#)
- [CLAS 240.3](#)
- [CLAS 242.3](#)
- [CLAS 247.3](#)
- [CLAS 248.3](#)
- [GEOG 130.3](#)
- [GEOG 202.3](#)
- [GEOG 204.3](#)
- [GEOG 208.3](#)
- [GEOG 240.3](#)
- [GEOG 340.3](#)
- [GEOG 364.3](#)
- [GEOG 381.3](#)
- [GEOG 385.3](#)
- [GEOG 386.3](#)
- [GEOG 486.3](#)
- [GEOG 491.3](#)
- [PLAN 341.3](#)
- [PLAN 342.3](#)
- [PLAN 343.3](#)
- [PLAN 346.3](#)
- [PLAN 350.3](#)
- [PLAN 392.3](#)
- [PLAN 442.3](#)
- [PLAN 446.3](#)

Visual Arts

Please note that any 100-level course taken after the first 6 credit units will be counted as a senior course.

Choose 6 credit units of Art History courses from the following:

- [100-Level, 200-Level, 300-Level or 400-Level ARTH Courses](#)

Choose 9 credit units from the following Art or Art History courses:

- [100-Level, 200-Level, 300-Level or 400-Level ART Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ARTH Courses](#)

Must include 2 different studio areas (painting, drawing, printmaking, extended media, sculpture, and/or photography) within ART:

Painting: [ART 111.6](#), [ART 211.6](#), [ART 311.6](#), [ART 411.6](#), [ART 421.6](#), [ART 431.6](#)

Drawing: [ART 112.6](#), [ART 212.6](#), [ART 312.6](#), [ART 412.6](#), [ART 422.6](#)

Printmaking: [ART 113.6](#), [ART 213.6](#), [ART 313.6](#), [ART 413.6](#), [ART 423.6](#), [ART 433.6](#)

Extended Media: [ART 136.3](#), [ART 236.6](#), [ART 237.3](#), [ART 338.3](#), [ART 339.3](#), [ART 438.3](#), [ART 439.3](#)

Sculpture: [ART 141.3](#), [ART 241.3](#), [ART 242.3](#), [ART 341.3](#), [ART 342.3](#), [ART 441.3](#), [ART 442.3](#)

Photography: [ART 161.3](#), [ART 216.6](#), [ART 235.3](#), [ART 316.6](#), [ART 416.6](#), [ART 426.6](#), [ART 436.6](#)

Spring Session (after Year 2)

- [EDST 213.0](#)

Year 3 (30 credit units)

- [EFDT 301.3](#)
- [EPSE 348.3](#)
- [ECUR 320.3](#)
- [ECUR 325.3](#)
- [EFDT 315.3](#)
- [EDST 321.3](#)
- [EDST 322.3](#)

Choose 6 credit units of Education methods courses (3 credit units of Teaching Area 1 methods and 3 credit units of Teaching Area 2 methods) from the following:

- [EART 331.3](#)
- [ECUR 318.3](#)
- [ECUR 326.3](#)
- [ECUR 349.3](#)
- [ECUR 357.3](#)
- [ECUR 362.3](#)
- [ECUR 379.3](#)
- [ECUR 386.3](#)

Choose 3 credit units of Education electives from the following:

- [100-Level, 200-Level, 300-Level or 400-Level EADM Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ECUR Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level EFDT Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level EPSE Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ETAD Courses](#)

Year 4 (30 credit units)

- [EXPR 422.15](#)

- [EADM 303.3](#)
- Choose one of:
 - [EADM 411.3](#)
 - [ECUR 411.3](#)
 - [EFDT 411.3](#)
 - [EPSE 411.3](#)
- [EPSE 390.3](#)

Choose 6 credit units of Education electives from the following:

- [100-Level, 200-Level, 300-Level or 400-Level EADM Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ECUR Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level EFDT Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level EPSE Courses](#)
- [100-Level, 200-Level, 300-Level or 400-Level ETAD Courses](#)

Contact: Arvelle Van Dyck

College of Engineering, Items For Information:

Environmental Engineering Program – correction to November, 2016 UCC Submission

Please note that the list below was intended to replace the existing Environmental Engineering Elective list, so it should be represented in the Catalogue as follows in red:

B.E. Environmental Engineering

.....

Electives

Science Elective

All Science Electives must be taken in year 1 and year 2.

BIOL 120.3 CHEM 115.3 GEOL 121.3

Environmental Science Elective

BMSC 240.3 CHEM 221.3 EVSC 420.3 EVSC 421.3 FABS 212.3 GEOL 413.3

Environmental Engineering Elective

~~CHE 461.3 CE 414.3 CE 464.3 ENVE 432.3 ENVE 478.3 ENVE 481.3 GEOE 475.3~~
other approved Engineering elective

Group A Electives

ENVE 432

ENVE 414

ENVE 478

Group B Electives

CE 464.3

CE 415.3

CE 468.3

GEOE 375.3

CHE 461.3

GE 495.6 and GE 496.3 – correction to November, 2016 UCC Submission

Please note the following corrections in red to the new course proposals approved by the November, 2016 UCC:

GE 495.6: Technological Innovation Capstone Design Project (3L)

This course is a 4th year engineering design capstone experience. What makes it distinct from other disciplinary 495 capstone courses is that the students in GE 495.6 identify and develop their own design problems. They can also form multidisciplinary teams in order to tackle their design problems. Students will identify and characterize a design problem, show that it is valid, and then proceed to design a solution to the design problem using engineering design methods. This course is for those that seek a more entrepreneurial design experience.

Prerequisites: ~~Successful completion of the program core of the first three years of your engineering program.~~ Completion of 3rd year core and permission of home department.

GE 496.3: Technological Innovation Design Project (3L)

This course is a 4th year engineering design elective experience. What makes it distinct from other disciplinary design elective courses is that the students in GE 496.3 identify and develop their own design problems, or they help multidisciplinary design groups that are doing so. Students will identify and characterize a design problem, show that it is valid, and then proceed to design a solution to the design problem using engineering design methods or they will assist a design team of students from one or more other disciplines in the area of mechanical design. This course is for those that seek a more entrepreneurial design experience.

Prerequisite(s): ~~Successful completion of the program core of the first three years of your engineering program.~~ Completion of 3rd year core and permission of home department.

Contact: Danielle Gaudet

**School of Environment and Sustainability
University Course Challenge Submission
Changes to Certificate in Sustainability
December 2016**

Overview Information Regarding the Proposed Changes and the Addition of a new Focus: Initial changes were approved through the SENS Academic Programs Committee and the SENS Faculty Council in Summer 2016. We then consulted with the Department Heads and Vice Dean, Academics in the Departments/Colleges that offer the courses that were added in early fall 2016. They were encouraged to share with other faculty in their department as needed. A large amount of feedback was received through this consultation process outside of SENS. As a result further changes were made such as the name of the new focus, the addition of some classes not previously added and the removal of some classes that it was found were not a good fit.

The addition of the classes to the two existing focus areas and the creation of the new focus area in food systems and sustainability is not meant to generate additional students in these classes but to allow students already taking these classes to be able to use them towards the completion of the Certificate in Sustainability offered by SENS.

The addition of a new focus in “Food Systems and Sustainability” arose as a result of a student group project for ENVS 401.

The proposed changes to the Certificate in Sustainability can be seen below in **red**.

Certificate in Sustainability

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 the natural resources and sustainability focus, ~~or~~ the community and sustainability focus **or the food systems and sustainability focus**. The certificate will allow students to engage in problem-based, experiential learning across a broad range of sustainability topics. The program will begin in the student’s second year with ENVS 201.

Program Requirements

[Certificate in Sustainability \(21 credit units\)](#)

Required Courses (9 credit units):

- [ENVS 201.3](#)
- [ENVS 401.3](#)
- [INDG 107.3](#)

Choose **3 credit units** from the following elective courses:

Techniques and Tools for Sustainability

- [ENVE 481.3](#)
- [EVSC 203.3](#)
- [GEOG 290.3](#)
- [GEOG 385.3](#)
- [GEOG 386.3](#)
- [INDG 210.3](#)
- [RRM 321.3](#)
- [SOC 225.3](#)
- [SOC 232.3](#)
- [SOC 333.3](#)

Students must choose one of the following ~~two~~ **three** areas of focus, in consultation with an advisor:

Please note in each area of focus there are thesis and/or research course options listed. If a student chooses to use one of these courses 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.

Natural Resources and Sustainability Focus

Elective Courses (9 credit units):

Choose one of:

- [BIOL 228.3](#)
- [ECON 275.3](#)
- [ECON 277.3](#)
- [ENVE 201.3](#)
- [ENVE 212.3](#)
- [EVSC 210.3](#)
- [EVSC 220.3](#)
- [GEOG 280.3](#)
- [PHIL 226.3](#)
- [PHIL 231.3](#)
- [PHIL 236.3](#)
- [PLSC 213.3](#)
- [TOX 200.3](#)

Choose one of:

- [AREC 330.3](#)
- [BIOL 373.3](#)
- [ECON 376.3](#)
- [GEOG 351.3](#)
- [PLAN 329.3](#)
- [RRM 312.3](#)
- [TOX 301.3](#)

Choose one of:

- [AREC 430.3](#)
- [BIOL 410.3](#)
- [BIOL 412.3](#)
- [BIOL 470.3](#)
- [BIOL 475.3](#)
- [ENVE 432.3](#)
- [EVSC 421.3](#)
- [EVSC 430.3](#)
- [EVSC 492.3](#)
- [EVSC 494.6](#)
- [GEOG 490.3](#)
- [PLSC 413.3](#)
- [PLSC 422.3](#)
- [PLSC 423.3](#)
- [PLSC 425.3](#)
- [PLSC 492.3](#)
- [PLSC 494.6](#)
- [SLSC 492.3](#)
- [SLSC 494.6](#)

Community and Sustainability Focus

Elective Courses (9 credit units):

Choose one of:

- [ANTH 240.3](#)
- [ANTH 244.3](#)
- [ECON 275.3](#)
- [ECON 277.3](#)
- [GEOG 208.3](#)
- [GEOG 240.3](#)
- [GEOG 280.3](#)
- [HIST 257.3](#)
- [HIST 258.3](#)
- [HIST 263.3](#)
- [HIST 290.3](#)
- [INTS 203.3](#)
- [PHIL 226.3](#)
- [PHIL 231.3](#)
- [PHIL 236.3](#)
- [POLS 226.3](#)
- [SOC 202.3](#)
- [SOC 204.3](#)
- [SOC 206.3](#)
- [SOC 227.6](#)

- [WGST 210.3](#)

Choose one of:

- [ANTH 329.3](#)
- [ARCH 357.3](#)
- [AREC 330.3](#)
- [GEOG 340.3](#)
- [GEOG 364.3](#)
- [GEOG 381.3](#)
- [NRTH 312.3](#)
- [NRTH 331.3](#)
- [NRTH 332.3](#)
- [PLAN 342.3](#)
- [PLAN 346.3](#)
- [POLS 326.3](#)
- [POLS 328.3](#)
- [SOC 344.3](#)

Choose one of:

- [ANBI 475.3](#)
- [ANTH 401.3](#)
- [AREC 432.3](#)
- [AREC 430.3](#)
- [CHEP 402.3](#)
- [GEOG 464.3](#)
- [GEOG 491.3](#)
- [HIST 459.3](#)
- [INDG 451.6](#)
- [INTS 400.3](#)
- [NRTH 480.6](#)
- [PLAN 445.3](#)
- [PLAN 446.3](#)
- [POLS 403.3](#)
- [POLS 422.3](#)
- [SOC 409.3](#)
- [SOC 421.3](#)
- [WGST 411.3](#)

Food Systems and Sustainability Focus

Elective Courses (9 credit units):

Choose one of:

- [AREC 251.3](#)
- [AGRC 211.3](#)
- [PLSC 235.3](#)

Choose one of:

- ANSC 301.3
- ANBI 375.3
- AREC 330.3
- EVSC 380.3
- FABS 371.3
- PLSC 345.3
- RRM 312.3
- SLSC 313.3

Choose one of:

- AREC 432.3
- AREC 451.3
- EVSC 492.3
- EVSC 494.6
- FABS 401.3
- FABS 432.3
- FABS 436.3
- FABS 450.3
- FABS 492.3
- FABS 494.6
- GEOG 491.3
- PLSC 401.3
- PLSC 413.3
- PLSC 418.3
- PLSC 422.3
- PLSC 492.3
- PLSC 494.6
- SLSC 492.3
- SLSC 494.6
- SOC 402.3

Rationale for TOX 200.3 Being Added to Natural Resources Focus:

Paul Jones, faculty member in the Toxicology program, brought this suggestion forward to the co-chairs of the certificate program and they both agreed, after reviewing the course syllabus and lecture schedule, that it would be a valuable addition and one taken by a number of students pursuing the certificate program.

Rationale for Adding the Thesis Classes in All Focus Areas:

As thesis classes can be focused on a wide range of topics it was decided to add these classes to the various tracks with the stipulation that the topic had to be on the topic area of the track (ex: natural resources and sustainability). A student who wishes to use one of these courses in the certificate must share their thesis topic with one of the certificate coordinators and receive approval to use it in the certificate.

Rationale for PLSC 413.3 Being Added to the Natural Resources Focus:

This course was brought up in the development of the new Food Systems and Sustainability Focus. It was also felt to be a very good fit in the Natural Resources and Sustainability Focus and is proposed to be added there as well.

Rationale for SOC 202.3 Being Added to the Community Focus:

During the consultation for the new Food Systems and Sustainability Focus this course was brought forward to SENS by the Faculty member in Sociology who offers it. It was agreed it was a good fit and added.

Rationale for ANBI 475.3 and AREC 432.3 Being Added to the Community Focus:

These courses were brought up in the development of the new Food Systems and Sustainability Focus. It was also felt to be a very good fit in the Community and Sustainability Focus and is proposed to be added there as well.

Rationale for SOC 421.3 Being Added to the Community Focus:

Over time we have found that students often have a hard time getting into the CHEP 402.3 courses in this section. SOC 421.3 was proposed as a good alternative.

Rationale for New Focus Area:

One of the student groups from ENVS 401.3 in Term 2 2015-16 proposed the addition of a new focus area for the Certificate in Sustainability some of this information comes from their work on this class project. Agriculture is a fast growing industry and sustainability is becoming a widely focused area within it. The students who participated in this project felt the certificate provides students with a different perspective on sustainability issues, helps look at problems differently, and provides an advantage when out in the job market. Adding a focus in Food Systems and Sustainability provides another option that is appealing for many students and would provide exposure to sustainability related concepts and practices in the agriculture community. During the consultation process with faculty concerns were raised about the combination of classes that students could potentially take. Given this feedback the lists of class choices was reviewed and changes made. You will note that particularly in the 200-level choices the options are reduced.

Motion from SENS Faculty Council Meeting on November 18, 2016 to Approve the Above Changes:

Proposed Revisions to Certificate in Sustainability – Phil Loring

The proposed new track is in Food Systems & Sustainability. Input was solicited from a variety of other academic units on campus and mixed feedback was received. There were three primary concerns:

- a. Options were too broad – this will be addressed by limiting options at the 200 level and tidying up the 300 and 400 level options.
- b. Concern that the title suggests current Ag & Bio degrees do not address sustainability
- c. Objection to the use of the word Food in the title – this was the view of one particular unit that understands that word in a very specific way.

A notation will be added to all tracks that students can use a senior thesis as the 400 level elective for the Certificate.

SENS APC has reviewed and agreed with the changes as outlined.

LAROQUE/KRICSFALUSY: Move that the changes to the Certificate in Sustainability be approved as circulated.

CARRIED.

Contact: Andrea Eccleston