## Academic Programs Committee of Council

## University Course Challenge

## Scheduled posting: December 16, 2010

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## Approval:

Date of circulation: December 16, 2010
Date of effective approval if no Challenge received: January 6, 2011

## Next scheduled posting:

University Course Challenge is now being posted once a month, on a regular schedule.
The next scheduled Challenge document posting will be in January 2011.

| College Submission Deadline | UCC Posting Date | Date of effective approval if no <br> challenge received: |
| :--- | :--- | :--- |
| January 10, 2011 <br> (please include all changes for <br> the 2011-12 Calendar) | January 17 | January 31 |

Urgent items can still be posted on request.

## College of Agriculture \& Bioresources

## Pre/Corequisites

PLSC 335.3, Integrated Pest Management
Remove Biology 226 as a prerequisite. The prerequisite will now read Biology 222 or permission of the instructor.

AGRN 375.3, Current Issues in Agronomy
Prerequisite changed from 'AGRC 111 and 113, SLSC 240 and one of PLSC 201 or 222' to $A G R C 111$ and 30 credit units university credit.

SLSC 232.3, Soil Genesis and Classification
ABE 212, Physical Principles of Plant Biosystems, added as a pre or corequisite. Change EVSC 220, SLSC 240 and GEOG 235 from prerequisites to pre or corequisites.

ANSC 430.3, Intensive Management of Beef Cattle
Add or permission of the instructor to the prerequisites.
ANSC 410.3, Grazing Animal Production
Add or permission of the instructor to the prerequisites. Change title to Cow Calf Management. Add note: ANSC 315 and 314 are recommended.

ANSC 440.3, Monogastric Animal Production II - Change Note from 'ANSC 315 or 340 are recommended' to 'ANSC 315 and 340 are recommended'.

ANSC 460.3, Intensive management of Dairy Cattle
Add or permission of the instructor to the prerequisite.

FABS 315.3, Food Chemistry
Change prerequisite from BMSC 230.3 to BMSC 200.3
FABS 417.3, Food and Bioproducts Analysis
Change prerequisite from one of BMSC 230.3 or CHEM 250.3 to BMSC 200.3

## Item for Information: changes to course descriptions

## FABS 325.3, Food Microbiology and Safety

The relationship of microorganisms to the food supply and safety: food spoilage; foodpborne illness, and production of fermented foods. Emphasis is placed on techniques for isolating, enumerating, and identifying important food borne microbes.
Change course description to
Detailed examination of microorganisms and their relationship to the food supply and public safety. Theory of how intrinsic and extrinsic factors, which govern microbial proliferation in foods, affect food spoilage, food preservation and disease. Laboratories will emphasize methods and techniques for isolating, enumerating, and identifying important food-borne microbes.

## FABS 334.3, Industrial Microbiology

A study of the microbiology and biotechnology of single cell protein and bakers' yeast production from surplus carbohydrates and petroleum, biochemistry of cell growth, production and usage of industrial enzymes, immobilized cells and enzymes, and microbial insecticides.

Change course description to
A study of the microbial cultures and bioprocess technologies for bioproduct synthesis and transformation by diversity of industrial microorganisms, traditional and biotechnological strain improvements, fermentation systems, immobilized cell reactors, downstream processing, product recovery, development and safety.

## FABS 450.3, Anaerobic and Rumen Microbiology

A detailed study of the anerobic microorganisms in the environment and those indigenous to the rumen and of the role of the rumen microbiota in nutrition of the host animal.
Change description to
A detailed study of the rumen microbial ecosystem and other anerobic environments. Factors which govern microbial proliferation, metabolism of plant, structural and storage carbohydrates, and fermentation will be discussed in the context of host ruminant nutrition.

## College of Arts \& Science

The curricular revisions listed below were approved through the October and November 2010 Arts \& Science College Course and Program Challenges and are now submitted for approval by University Course Challenge

## DIVISION OF HUMANITIES \& FINE ARTS

## English

Minor Course Revision
ENG 202.6 Reading Canon Texts and Contexts
ENG 203.6 Reading English Critical Approaches
ENG 204.6 History and Future of the Book
ENG 207.3 Decolonizing Literatures and Their Cultural and Expressive Contexts
ENG 209.3 Transnational Literatures
ENG 215.3 Life Writing
ENG 217.3 Mythologies of Northern Europe
ENG 221.6 Fantasy and Speculative Fiction
ENG 232.3 Gothic Narrative
ENG 242.3 Indigenous Storytelling of the Prairies
ENG 246.3 Short Fiction
ENG 253.6 Canadian Literature in English
ENG 277.3 Literary Uses of Mythology
ENG 278.3 English Satire
ENG 281.6 Feminist Critical Theory and Literature by Women
ENG 284.3 Beowulf and Tales of Northern Heroes
ENG 286.3 Courtly Love and Medieval Romance
ENG 288.3 Introduction to Film
ENG 294.3 Techniques of English Poetry
Prerequisite change:
Old: 6 credit units of 100-level English
New: 6 credit units of 100-level ENG; or 3 credit units 100-level ENG and INTS 101
ENG 233.3 Page and Stage
Prerequisite change:
Old: 6 credit units of 100-level English or permission of department.

New: 6 credit units of 100 -level ENG; or 3 credit units 100 -level ENG and INTS 101 ; or permission of the department.

ENG 290.6 Introduction to English Linguistics and History of English Language
Prerequisite change:
Old: ENG 110 or 6 credit units from ENG $111,112,113,114,115$, or LING 111 or 112 , or a senior courses in a language
New: 6 credit units of 100-level English; or 3 credit units of 100-level English and INTS 101.12; or LING 111; or a senior course in a language.
Rationale: On September 29, 2010, the Department of English passed a motion:
"That INTS 101.12, in combination with 3 credit units of 100-level English, be accepted as an alternative prerequisite to 200-level English."
This motion may help boost enrolments, both for INTS 101 and for upper-year English courses. It also creates a bit of flexibility for students covering the Arts \& Science distribution requirements.

## History

## Minor Program Revision

History B.A. Honours, Double Honours, Four-year, Three-year, Minor and Recognition
Add CMRS 333.3 to the list of "Equivalent History Courses"
Make the following changes to the lists of courses which may be used to fulfill temporal and geographical requirements in Requirement A6:
HIST 207.3: add to End Date of 1815 or Earlier AND to Europe and Great Britain
HIST 245.6: add to Other Regions
HIST 246.6: add to Europe and Great Britain
HIST 251.3: add to Start Date of 1815 or Later AND to North America
HIST 313.3: add to End Date of 1815 or Earlier AND to Europe and Great Britain
HIST 333.3: add to End Date of 1815 or Earlier AND to Europe and Great Britain
HIST 375.3: add to Start Date of 1815 or Later AND to North America
HIST 379.3: REMOVE from North America list; instead, "Note:" should read as follows: "Chronological and geographical designation will vary with instructor. See department for latest details."
HIST 482.3: add to North America
HIST 484.3: add to North America (this course is currently in the challenge)
HIST 486.3: add to Start Date of 1815 or Later AND to Other Regions
Rationale: Regarding the first change: all of the History B.A. options require students to take at least 6 credit units' worth of classes focused on time periods prior to 1815 . But many of these courses are taught by HIST faculty who also contribute to the College's CMRS program. In order that these faculty be able to fulfill their teaching obligations in both programs and serve the needs of students in both majors (and because of the intellectual and skill-based affinities between the two majors), it is desirable and sensible to allow selected CMRS courses to count toward fulfilling HIST requirements.
The second change is just the correct categorization of course which have been recently introduced, or were previously in the incorrect category.

## New Course

## HIST 484.3 History of Madness: From Enlightenment to Prozac

1 or 2 This seminar examines historical issues in mental health and psychiatry from medical, sociological, cultural, legal and political perspectives, principally in the English-speaking world. Charting a path from the rise of the asylum, to the dark chapter of the lobotomy, through Big Pharma and into Scientology, the History of Madness considers how we have historically found reason through insanity.
Prerequisite(s): Permission of the department.
Instructor(s): Erika Dyck
Rationale: Improves department's offerings in the field, reflects the research interests of the instructor and responds to student demands. Since joining the History Department in 2008, the instructor has been developing teaching and mentoring strengths in the broad field of History of Medicine. This course
complements other courses recently introduced in the department, including HIST 481 and a Special Topics course on the history of HIV/AIDS. This course also dovetails with the instructor's area of research and is an area that students often choose to explore in the History of Medicine courses.

## Minor Course Revisions

HIST 200 History of Greece
HIST 201 History of Rome
HIST 202 Formation of Europe 300 to 1000
Prerequisite Change:
Old: 6 credit units HIST at the 100 -level or 6 credit units CLAS
New: 6 credit units 100-level HIST; or 6 credit units CLAS; or INTS 101.12
HIST 205 Europe and World in High Middle Ages 1000 to 1300
HIST 213 Medieval England 1000 to 1460
HIST 215 Byzantine Empire 330 to 1453
HIST 216 Opportunities and Dangers Womens Lives in PreModern Europe
HIST 220 Russian History from the 9th Century to Present
HIST 225 Age of Renaissance 1300 to 1555
HIST 226 Early Modern Europe 1555 to 1789
HIST 228 19th Century Europe 1789 to 1914
HIST 229 Europe in the 20th Century
HIST 236 Italy in Age of Baroque 1550 to 1789
HIST 245 African History An Introduction
HIST 246 The Rise and Fall of Imperial Britain 1500-2000
HIST 249 China and Japan in the 20th Century
HIST 257 The Canadian Prairie to 1905
HIST 258 The Canadian Prairies since 1905
HIST 259 Canadian Women from Pre Contact Period to 1918
HIST 260 Canadian Women History from 1919 to Present
HIST 263 The Canadian North
HIST 264 Native Newcomer Relations in Canada to 1880
HIST 265 Native Newcomer Relations in Canada 1880 to Present
HIST 266 History Wars Issues in Native Newcomer Relations
HIST 270 A History of the United States
HIST 271 Modern Latin American History
HIST 281 Military History
HIST 285 Christianity in Europe from 1500 to 1965
HIST 291 The World Wars
Prerequisite Change:
Old: 6 credit units HIST at the 100 -level
New: 6 credit units 100 -level HIST; or INTS 101.12
HIST 207 Greek Tragedy and the culture of Fifth Century Athens
Prerequisite Change:
Old: 6 credit units 100-level CLAS, ENG, or HIST
New: 6 credit units 100-level CLAS, ENG, or HIST; or INTS 101.12
HIST 251 History of the Civil War in the United States
Prerequisite Change:
Old: 3 credit units HIST at the 100 -level
New: 6 credit units 100 -level HIST; or INTS 101.12

HIST 283 Society and Rise of Science from the Renaissance to Industrial Revolution HIST 284 Society and Rise of Science from the Industrial Revolution to 20th Century
Prerequisite Change:
Old: 6 credit units HIST at the 100 -level or 6 credit units in any natural science.
New: 6 credit units 100-level HIST; or 6 credit units in any natural science; or INTS 101.12.

## HIST 288 Cooperatives in the World

Prerequisite Change:
Old: 6 credit units HIST and/or social science at the 100 -level.
New: 6 credit units HIST and/or social science at the 100-level; or INTS 101.12.

## HIST 289 The Menace of Progress A History of Colonialism and the Failures of Development HIST 290 Topics in Environmental History

Prerequisite Change:
Old: 6 credit units HIST at the 100 -level or permission of the department.
New: 6 credit units 100 -level HIST; or INTS 101.12; or permission of the department.
Rationale: The Department of History has voted to accept successful completion of INTS 101.12 in lieu of the 6 cu of 100-level History courses normally needed to (a) fulfill the requirements for the major and minor in History, and (b) gain access to 200-level courses in History. Students who take INTS 101.12 for credit will not be allowed to count 100-level History courses toward their History majors or minor.

## HIST 375 USA Foreign Relations 1890s to the Present

Prerequisite Change:
Old: 6 credit units HIST at the $100-$ level.
New: 6 credit units 200-level HIST.
Rationale: Typo in old prerequisite. 300-level HIST courses require 200-level courses as prerequisites.

## HIST 378 United States and the Vietnam Wars

New Course Number: HIST 478
Prerequisite Change:
Old: 6 credit units at the 200 level
New: Permission of the department.
Change to Note:
Old Note: Note: Post-1815; North America. Students with credit for HIST 398 The United States and the Vietnam Wars may not take this course for credit.
New Note: Post-1815; North America. Students with credit for HIST 398 The United States and the Vietnam Wars or HIST 378 may not take this course for credit.
Rationale: History 378.3, "The United States and the Vietnam Wars," has been a popular class with high student enrolments. Nevertheless, after teaching the course for a number of years as a hybrid lecture/seminar class at the 300 level, I have decided that it will work better as a seminar at the 400 level. As a result, I have increased the amount of required reading for the course (with more emphasis on historiography) and changed the writing assignments (with more stress on the analysis of primary sources). As well, I recently created a new hybrid course at the 300 level, "U.S. Foreign Relations, 1890s to the Present." This course is intended to provide a general background in U.S. foreign policy for students who wish to take more specialized classes at the 400 level. Thus, for both pedagogical and conceptual reasons, it makes sense for the "United States and the Vietnam Wars" to become a 400 level seminar.

## Languages \& Linguistics

## New Courses

## GERM 260.3 Nobel Prize Winning Authors of German Literature - In Translation

1 or 2 A study of texts by authors who have won the Nobel Prize for Literature. May cover Heinrich Böll, Elias Canetti, Günter Grass, Gerhart Hauptmann, Herman Hesse, Elfriede Jelinek, Thomas Mann, Herta Müller, Nelly Sachs, and others. The course focuses on the acquisition of skills essential for literature and cultural study: critical reading, scholarly research, textual analysis, and essay writing. Course is taught in English.
Prerequisite(s): GERM 117 or permission of the instructor.
Instructor(s): Silke Falkner
Rationale: Improves department's offerings in the field, reflects the research interests of the instructor and responds to student demands. To create a course that can be taught at both the 200-and 300 -level (see GERM 360 below), and be of interest for students who wish to engage with German-language culture. At the moment, the department offers the more special-topic literature courses about Holocaust-writing and Literature by Women; this new seminar, to be rotated with the other literature courses, will appeal to the more general interest in "great writers." The nature of this course allows engagement with various genres, such as drama (Canetti, Hauptmann, Jelinek), prose (Böll, Canetti, Grass, Jelinek, Mann, Müller), poetry (Hesse, Sachs). The authors are all available in English translation which allows this course to be taught simultaneously in German and in English.

## GERM 360.3 Nobel Prize Winning Authors of German Literature

1 or 2 A study of texts by authors who have won the Nobel Prize for Literature. May cover Heinrich Böll, Elias Canetti, Günter Grass, Gerhart Hauptmann, Herman Hesse, Elfriede Jelinek, Thomas Mann, Herta Müller, Nelly Sachs, and others. The course focuses on the acquisition of skills essential for literature and cultural study: critical reading, scholarly research, textual analysis, and essay writing. Course languages are German and English.
Prerequisite(s): GERM 317 or permission of the instructor.
Instructor(s): Silke Falkner
Rationale: Improves department's offerings in the field, reflects the research interests of the instructor and responds to student demands. To create a course that can be taught at both the 200-and 300 -level (see GERM 260 above), and be of interest for students who wish to engage with German-language culture. At the moment, the department offers the more special-topic literature courses about Holocaust-writing and Literature by Women; this new seminar, to be rotated with the other literature courses, will appeal to the more general interest in "great writers." The nature of this course allows engagement with various genres, such as drama (Canetti, Hauptmann, Jelinek), prose (Böll, Canetti, Grass, Jelinek, Mann, Müller), poetry (Hesse, Sachs). The authors are all available in English translation which allows this course to be taught simultaneously in German and in English.

## GERM 272.6 Intermediate German 1 in Socio-Cultural Context

2 First course in the Intermediate Language Sequence of the Marburg Term-Abroad. Focuses on beginner intermediate proficiency in four skills (listening, speaking, reading, and writing), as well as intercultural competence. Students are tested into the appropriate level before or upon their arrival in Marburg, Germany.
Prerequisite(s): Germ 117 or equivalent
Instructor(s): Course is taught by instructors at Marburg University, Marburg, Germany. Final grade will be assigned by a faculty member in the Department of Languages \& Linguistics at the University of Saskatchewan.
Rationale: Improves department's offerings in the field and responds to student demands. As part of the 5-month (January to May) Marburg Programme, this new course provides students with the opportunity to deepen and strengthen their German language competence on the intermediate level. At the University of Saskatchewan, we do not offer a sufficient number of courses to enable students to reach a high level of German language proficiency. This course is the first in a sequence of four intensive language courses
(each 6 weeks long with 120 contact hours), followed by a culture/literature course ( 4 weeks). Before or upon arrival in Marburg, students are tested into the exact language course appropriate to their individual strengths and weaknesses. After the completion of two of the four language courses, they take a culture/literature course.

## GERM 273.6 Intermediate German 2 in Socio-Cultural Context

2 Second course in the Intermediate Language Sequence of the Marburg Term-Abroad. Focuses on intermediate proficiency in four skills (listening, speaking, reading, and writing), as well as intercultural competence. Students are tested into the appropriate level before or upon their arrival in Marburg, Germany.
Prerequisite(s): Germ 272 or equivalent
Instructor(s): Course is taught by instructors at Marburg University, Marburg, Germany. Final grade will be assigned by a faculty member in the Department of Languages \& Linguistics at the University of Saskatchewan.
Rationale: Improves department's offerings in the field and responds to student demands. As part of the 5-month (January to May) Marburg Programme, this new course provides students with the opportunity to deepen and strengthen their German language competence on the intermediate level. At the University of Saskatchewan, we do not offer a sufficient number of courses to enable students to reach a high level of German language proficiency. This course is the first in a sequence of four intensive language courses (each 6 weeks long with 120 contact hours), followed by a culture/literature course ( 4 weeks). Before or upon arrival in Marburg, students are tested into the exact language course appropriate to their individual strengths and weaknesses. After the completion of two of the four language courses, they take a culture/literature course.

## GERM 274.6 Intermediate German 3 in Socio-Cultural Context

2 Third course in the Intermediate Language Sequence of the Marburg Term-Abroad. Focuses on intermediate proficiency in four skills (listening, speaking, reading, and writing), as well as intercultural competence. Students are tested into the appropriate level before or upon their arrival in Marburg, Germany.
Prerequisite(s): Germ 273 or equivalent
Instructor(s): Course is taught by instructors at Marburg University, Marburg, Germany. Final grade will be assigned by a faculty member in the Department of Languages \& Linguistics at the University of Saskatchewan.
Rationale: Improves department's offerings in the field and responds to student demands. As part of the 5-month (January to May) Marburg Programme, this new course provides students with the opportunity to deepen and strengthen their German language competence on the intermediate level. At the University of Saskatchewan, we do not offer a sufficient number of courses to enable students to reach a high level of German language proficiency. This course is the first in a sequence of four intensive language courses (each 6 weeks long with 120 contact hours), followed by a culture/literature course ( 4 weeks). Before or upon arrival in Marburg, students are tested into the exact language course appropriate to their individual strengths and weaknesses. After the completion of two of the four language courses, they take a culture/literature course.

## GERM 275.6 Intermediate German 4 in Socio-Cultural Context

2 Fourth course in the Intermediate Language Sequence of the Marburg Term-Abroad. Focuses on intermediate proficiency in four skills (listening, speaking, reading, and writing), as well as intercultural competence. Students are tested into the appropriate level before or upon their arrival in Marburg, Germany.
Prerequisite(s): Germ 274 or equivalent
Instructor(s): Course is taught by instructors at Marburg University, Marburg, Germany. Final grade will be assigned by a faculty member in the Department of Languages \& Linguistics at the University of Saskatchewan.

Rationale: Improves department's offerings in the field and responds to student demands. As part of the 5-month (January to May) Marburg Programme, this new course provides students with the opportunity to deepen and strengthen their German language competence on the intermediate level. At the University of Saskatchewan, we do not offer a sufficient number of courses to enable students to reach a high level of German language proficiency. This course is the first in a sequence of four intensive language courses (each 6 weeks long with 120 contact hours), followed by a culture/literature course ( 4 weeks). Before or upon arrival in Marburg, students are tested into the exact language course appropriate to their individual strengths and weaknesses. After the completion of two of the four language courses, they take a culture/literature course.

## GERM 276.3 Intermediate German Literature in its Socio-Cultural Context

2 Entry-level literature course following the Intermediate Language Sequence in the Marburg TermAbroad. Focuses on the acquisition of skills essential for literature and cultural study: Differentiated vocabulary development (such as irony, edification, scholarly vocabulary), research in target language, textual analysis based on socio-historical background information, and essay writing. The course is offered on location in Marburg, Germany.
Prerequisite(s): Germ 273.6 or 274.6 or 275.6
Instructor(s): Course is taught by instructors at Marburg University, Marburg, Germany. Final grade will be assigned by a faculty member in the Department of Languages \& Linguistics at the University of Saskatchewan.
Rationale: Improves department's offerings in the field and responds to student demands. As part of the 5-month Marburg Term Abroad (January to May), this new course provides students with the opportunity to engage in a German literature course, given in German, at the intermediate level. At the University of Saskatchewan, we do not offer a literature course given in German at this level, based on an insufficient number of hours of prior language exposure that would enable students to reach the needed level of German language proficiency at this point in their university-studies. By taking part in the Marburg Term Abroad, students will have the opportunity to make great progress both in terms of language and in terms of inter-cultural competence, before actually entering this literature course.

## LING 248.3 Second Language Acquisition

1 or 2 The course provides an overview of second language acquisition theories. It considers views on the nature of language learning, on first and second language acquisition and native/non-native language processing.
Prerequisite(s): Ling 111.3 and Ling 112.3
Instructor(s): Veronika Makarova, Peter Wood
Rationale: Improves department's offerings in the field, reflects the research interests of the instructor and responds to student demands. The course will be used as a restricted elective in the Linguistics and Modern Languages programs.

## LING 347.3 Conversation and Discourse Analysis

1 This course will introduce students to conversation and discourse analysis. It will deal with the foundations of pragmatics, such as speech acts, felicity conditions and the cooperative principle in conversations. Later, the focus will shift to discourse analysis in which language use is examined within its sociocultural context. Students will be introduced to current research paradigms such as critical discourse analysis and sociocultural theory. Finally, the implications of research findings on language teaching within a communicative framework will be discussed .
Prerequisite(s): LING 111
Instructor(s): Veronika Makarova, Peter Wood
Rationale: Improves department's offerings in the field and responds to student demands. This course will provide an opportunity for students to learn about theories pertaining to conversation and discourse. It will be used as a restricted elective in the Linguistics programs.

## DIVISION OF SCIENCE

## Biochemistry

Minor Program Revisions
Biochemistry B.Sc. Honours, Double Honours, Four-year and Three-year

1. Add BIOC 300.3 to the list of Biochemistry electives in C6.
2. Add BINF 210.3, FABS 210.3 and FABS 212.3 to the list of restricted electives for required cognate courses in C7.
Rationale: Courses are relevant to the field and provide majors with greater course selection.
Biochemistry \& Biotechnology B.Sc. Honours and Four-year
3. Add BIOC 300.3 to the list of Biochemistry electives in C6.
4. Add BINF 210.3, FABS 210.3 and FABS 212.3 to the list of restricted electives for required cognate courses in C7.
Rationale: Courses are relevant to the field and provide majors with greater course selection.

## Bioinformatics

## Minor Program Revisions

Bioinformatics B.Sc. Honours and Four-year
Requirement C6: Remove ACB 200.3, BIOC 200.3, 211.3, 212.3, MCIM 214.3, 216.3 from required courses. Add BMSC 200.3, 210.3, 220.3, 230.3, 240.3 and MCIM 321.3, 326.3 .
(The suggested sequence of courses will be updated to account for these changes, all of which fall in "Year 2".)

## C6 Major Requirement

The B.Sc. requires a minimum of 9 credit units in the major at the 300 -level or above

- BЮC 200.3
- BIOC 212.3
- BIOC 310.3
- $\quad$ BIOC 311.3 or MCIM 391.3 or BIOL 420.3
- BIOL 226.3 (formerly BIOL 211) or MCIM 216.3 or MCIM 326.3
- BINF 200.3
- BINF 300.3
- BMSC 200.3
- BMSC 240.3
- CHEM 250.3
- CMPT 260.3
- CMPT 270.3
- CMPT 280.3
- CMPT 360.3
- CMPT 355.3
- STAT 242.3 or STAT 245.3 or STAT 246.3 (STAT 242 recommended)
- BINF 400.3 (requires completion of a research project (undergraduate thesis) on a bioinformatics topic. Students also have to attend the research seminars as determined by their project supervisor. With permission of the Academic Coordinator, project courses from other relevant departments may be used to fulfill this requirement, providing a bioinformatics project is pursued.) This course is required for the honours program only.
Choose 21 credit units from the following lists, such that a minimum of 3 credit units are completed from each list.


## List 1

| $\bullet$ | ACB 200.3 | - | ANSC 470.3 | - |
| :--- | :--- | :--- | :--- | :--- | BIOC 412.3


| $\bullet$ | BIOC 437.3 | $\bullet$ | BMST 305.3 | $\bullet$ |
| :--- | :--- | :--- | :--- | :--- |
| $\bullet-$ | BIOL 226.3 | $\bullet$ | BMST 406.3 | MCIM 387.3 |
| $\bullet-$ | BIOL 316.3 | $\bullet$ | BMST 408.3 | MCIM 417.3 |
| $\bullet$ | BIOL 420.3 | $\bullet$ | CHEM 255.3 | • | MCIM 421.3

## Remaining lists are unchanged.

## Suggested Sequence of Courses

## Year 2

- BIOC 200.3
- BIOC 212.3
- BMSC 200.3
- BMSC 240.3
- CHEM 250.3
- BIOL 226.3 or MCIM 216.3 MCIM 326.3
- BINF 200.3
- CMPT 260.3
- CMPT 270.3
- CMPT 280.3
- $\quad$ STAT 242.3 or STAT 245.3
- $\quad 3$ credit units to meet Program Type C requirements.

Rationale: Previous courses have been deleted.

## Biology

## Minor Program Revisions

## Biology B.Sc. Three-year

Requirement C7: Add BMSC 200.3 to the list of options for the required cognate courses.
Rationale: This is to correct an omission in the Calendar that occurred with previous revisions to the Biology degree programs following the introduction of the BMSC two year core. The proposed revision makes the C 7 cognate requirements for the three year degree consistent with the B.Sc. 4-year and B.Sc. Honours program.

## Biology B.Sc. Honours, Double Honours and Four-year

Requirement C7: Add PLSC 240.3 (Plant Metabolism - formerly BIOC 220.3) and BMSC 230.3 (Metabolism - formerly BIOC 211.3) to third bullet in the list of options for the required cognate courses (bullet becomes: 3 credit units selected from BMSC 230, PLSC 240, senior BIOC or senior CHEM). Rationale: The former courses fit this category, as BIOC courses. With their transition to new designations, they became ineligible. The change will make these two courses functionally equivalent to other Senior CHEM and BIOC courses in satisfying the Biology program cognate requirement and will provide greater flexibility for students.

## Biology \& Biotechnology B.Sc. Honours and Four-year

Requirement C6: Substitute BMSC 240.3 - Laboratory Techniques for BIOC 212.3 - Introductory Biochemical Techniques.
Rationale: BIOC 212 no longer exists. BMSC 240 is the appropriate substitution.

## Minor Course Revisions

BIOL 302.3 Evolutionary Processes
Prerequisite change:

Old: BIOL 120 and BIOL 121 (formerly BIOL 110.6) and 6 senior credit units in BIOL New: BIOL 120, BIOL 121, BIOL 226 and 3 senior credit units in BIOL
Change to Note:
Old Note: BIOL 226 is recommended. Not offered until 2009-2010. This course is a requirement in all Biology degrees and serves as a prerequisite for other senior BIOL courses. Students should consider taking this course no later than their third year. Students with credit for BIOL 263 or BIOL 401 may not take this course for credit.
New Note: This course is a requirement in all Biology degrees and serves as a prerequisite for other senior BIOL courses. Students should consider taking this course no later than their third year. Students with credit for BIOL 263 or BIOL 401 may not take this course for credit.
Rationale: This change is based on input from students and from the instructor. Students studying evolutionary processes require a working knowledge of genetics and genome organization in order to appreciate and understand the mechanisms driving evolutionary processes. Currently BIOL 226, Genes to Genomics, is recommended but not required as a prerequisite. A large majority of students have taken BIOL 226 by the time they are taking BIOL 302. By requiring BIOL 226 as a prerequisite to the Evolutionary Processes course the Department will formalize the need for a solid background in genetics and will be able to better address genetic mechanisms driving evolution at a 300 -level.

## BIOL 373.3 Community Ecology

Prerequisite change:
Old: BIOL 228 (formerly BIOL 253) or PLSC 213
New: BIOL 228 or PLSC 213; one of STAT 245, STAT 246 or PLSC 314
Change to Note:
Old Note: Note: STAT 245 or PLSC 314 are recommended, but not required
New Note: (none)
Rationale: This change is based on a request from the instructor and from student input. Currently a statistics course is recommended, but not required in order to take BIOL 373.3. Students would be better served with a statistics course as a prerequisite since several laboratory exercises utilize statistical tools and methods. The three courses designated, STAT 245.3, STAT 246.3 or PLSC 314.3, will provide the required background and can be used by students to meet the statistics requirement for Biology majors.

## BIOL 430 Neurobiology of Behaviour

Prerequisite change:
Old: BIOL 317 (formerly BIOL 217) or BMSC 224 (or HSC 208) or VBMS 212; or permission of instructor.
New: BIOL 317 or HSC 350 or permission of instructor
Rationale: The current prerequisites are in error brought on from program changes to the Biology and BMSC programs. Currently BIOL 430 lists both BIOL 317 or BMSC 224 as possible prerequisites since these are the successors to two previous prerequisite courses (BIOL 217 or HSC 208). These no longer make sense as BIOL/BMSC 224 is also the prerequisite for BIOL 317. HSC 208 is no longer offered as that course designation. VBMS 212 is also no longer offered with that number. BIOL 317 is the correct prerequisite for this senior Biology course. HSC 350 (Fundamental Neuroscience Neural Systems) provides an appropriate alternate prerequisite at the 300 -level for students who have not taken BIOL 317.

## Food Science

## Minor Program Revisions

Food Science B.Sc. 4-year
Requirement C6: Remove FABS 457.3 and add FABS 366.3 and choice of FABS 486.3 or FABS 493.3 to list of required courses. Now requires 39 credit units.

Requirement C7: Remove CMPT 100.3 from list of required cognate courses. Remove FABS 436 from list of recommended electives. Add FABS 323.3, FABS 334.3, FABS 401.3, FABS 411.3, FABS 457.3, FABS 460.3, FABS 486.3, FABS 493.3, BMSC 240.3, BPBE 292.3, CHEM 115.3, CHEM 221.3 , CHEM 231.3, CHEM 242.3, CHEM 255.3, COMM 204 or BPBE 230.3 or ENT 210.3, 200 and 300level NUTR courses (221.3, 305.3, 310.3, 321.3, 322.3 and 420.3 recommended) and "other courses at the discretion of the undergraduate student advisor" to list of recommended electives. Now requires 42 credit units.

## C6 Major Requirement ( 3639 credit units)

## - BMSC 200.3

- BMSC 230.3
- CHEM 250.3
- FABS 210.3
- FABS 212.3
- FABS 315.3
- FABS 325.3
- FABS 345.3
- FABS 366.3
- FABS 417.3
- FABS 452.3
- FABS 457.3
- FABS 486.3 or 493.3
- ABE 303.3


## C7 Electives Requirement (45 42 credit units)

## Required Cognate Courses

Choose 12 Credit Units from the following:

- CMPT 100.3
- NUTR 120.3
- STAT 245.3 or PLSC 314.3
- CHEM 221.3 or CHEM 231.3 or CHEM 242.3 or CHEM 255.3

Open Electives ( $\mathbf{3 0}$ credit units)

- Courses to complete the requirements for 120 credit unit Four-year program, of which at least 66 must be at the 200-level or higher. Students are encouraged to choose from the following list of recommended courses.
Recommended Courses
- FABS 323.3
- FABS 334.3
- FABS 360.3
- FABS 362.3
- FABS 371.3
- FABS 401.3
- FABS 411.3
- FABS 436.3
- FABS 457.3
- FABS 460.3
- FABS 474.3
- FABS 486.3
- FABS 493.3
- BMSC 240.3
- BPBE 292.3
- CHEM 115.3
- CHEM 221.3

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- CHEM 231.3
- CHEM 242.3
- CHEM 255.3
- COMM 204 or BPBE 230.3 or ENT 210.3
- 200 and 300-level NUTR courses (221.3, 305.3, 310.3, 321.3, 322.3 and 420.3 recommended)
- PLSC 420.3
- other courses at the discretion of the undergraduate student advisor
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## Food Science B.Sc. Honours

Requirement C6: Remove FABS 457.3 and 490.0, and add FABS 366.3 and choice of FABS 486.3 or FABS 493.3 or FABS 494.3 to list of required courses. Remove FABS 436.3, FABS 491.3, CHEM 242.3, ECON 343.3, NUTR 221.3, NUTR 321.3 and PLSC 420.3 from list of restricted electives. Add FABS 401, 411, 457, 460, 486 and 493 and "other courses at the discretion of the undergraduate student advisor" to list of restricted electives. Now requires 54 credit units.

Requirement C7: Remove CMPT 100.3 from list of required cognate courses. Add BMSC 230.3, BMSC 240.3, BPBE 292.3, CHEM 115.3, COMM 204 or BPBE 230.3 or ENT 210.3, 200 and 300 -level NUTR courses ( $221.3,305.3,310.3,321.3,322.3$ and 420.3 recommended) and "other courses at the discretion of the undergraduate student advisor" to list of recommended electives. Now requires 27 credit units.

## C6 Major Requirement ( 5154 credit units)

- BMSC 200.3
- BMSC 230.3
- CHEM 250.3
- FABS 210.3
- FABS 212.3
- FABS 315.3
- FABS 325.3
- FABS 345.3
- FABS 366.3
- FABS 417.3
- FABS 452.3
- FABS 457.3
- FABS 486.3 or FABS 493.3 or FABS 494.3
- FABS 490.0
- ABE 303.3

Choose 15 Credit Units from the following:

- FABS 323.3
- FABS 334.3
- FABS 360.3
- FABS 362.3
- FABS 371.3
- FABS 436.3
- FABS 401.3
- FABS 411.3
- FABS 457.3
- FABS 460.3
- FABS 474.3
- FABS 486.3
- FABS 493.3
- FABS 491.3 (research project)
- CHEM 242.3 (if not taken as part of C7)
- ECON 343.3
- NUTR 221.3 or NUTR 321.3
- PLSC 420.3
- other courses at the discretion of the undergraduate student advisor

C7 Electives Requirement ( 27 credit units)

## Required Cognate Courses

- CMPT 100.3
- NUTR 120.3
- STAT 245.3 or PLSC 314.3
- CHEM 221.3 or CHEM 231.3 or CHEM 242.3 (if not taken as part of C6) or CHEM 255.3

Choose 9 credit units in consultation with the academic advisor. Students are encouraged to select these electives from:
Open Electives

- Courses to complete the requirements for 120 credit unit Four-year program, of which at least 66 must be at the 200-level or higher. Students are encouraged to choose from the following list of recommended courses.
- BIOC 220.3
- BIOC 310.3
- BIOC 432.3
- BIOL 226.3 (formerly BIOL 211)
- BIOL 364.3
- BIOL 472.3
- BMSC 230.3
- BMSC 240.3
- BPBE 292.3
- CHEM 115.3
- CHEM 221.3
- CHEM 231.3
- CHEM 242.3 (if not taken as part of C6 or as a required cognate course)
- CHEM 255.3
- GHEM 375.3
- COMM 204 or BPBE 230.3 or ENT 210.3
- 200 and 300 -level NUTR courses ( $221.3,305.3,310.3,321.3,322.3$ and 420.3 recommended)
- PLSC 461.3
- other courses at the discretion of the undergraduate student advisor

Rationale: In 2009, the Department of Food and Bioproduct Sciences revised their Bachelor of Science in Agriculture Program to have one specialization in the area of Food and Bioproduct Sciences (Major and Minor), reflecting changes in industry trends, university priorities, the faculty complement, student interests and employment opportunities. In doing so, several new Food Science based courses were introduced, such as FABS 366.3 (Physiochemical Properties of Food Macromolecules), FABS 493.3 (Product Development), FABS 495.3 (Sensory Analysis), FABS 411.3 (Lipid Science and Technology) and FABS 460.3 (Protein Science and Technology). Also, all courses now have the new FABS acronym, whereas some course were re-numbered or re-named.
Based on these changes, minor changes are being introduced to the B.Sc. Food Science programs (Honors and Major) to reflect the new curriculum. To accommodate these changes a number of non-food science courses were removed from our required lists (i.e. CHEM 242.3) and replaced by commodity-based food science courses (i.e. FABS 401.3) to better prepare our students for a career in the food industry. In addition, the proposed required courses in our programs are more germane to the discipline of food science. The revised program also meets (for accreditation) or exceeds those of other Food Science programs within North America.

## Physics \& Engineering Physics

## Minor Course Revisions

PHYS 371.3 Statistical and Thermal Physics
Prerequisite(s) or Co-requisite(s) change:
Old: PHYS 381
New: PHYS 381 or 383
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite or co-requisite for the course.

## PHYS 402.3 Techniques of Theoretical Physics I

Prerequisite change:
Old: PHYS 381; PHYS 356; MATH 338 and 379.
New: PHYS 381 or 383 ; PHYS 356; MATH 338 and 379.
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite.

## PHYS 452.3 Subatomic Physics

Prerequisite change:
Old: PHYS 381
New: PHYS 381 or 383
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite.

## PHYS 470.3 Solid State Physics

Prerequisite change:
Old: PHYS 371, PHYS 381
New: PHYS 371; PHYS 381 or 383
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite.

## PHYS 471.3 Synchrotron Physics

Prerequisite change:
Old: PHYS 356 and 381.
New: PHYS 356; PHYS 381 or 383.
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite.

## PHYS 481.3 Quantum Mechanics II

Prerequisite change:
Old: Prerequisite(s): PHYS 381; MATH (264 or 266), MATH 338.
New: PHYS 381 or 383; MATH 264 or 266; MATH 338.
Rationale: The new course PHYS 383 provides an introduction to quantum mechanics which is as suitable as PHYS 381 as a prerequisite.

## DIVISION OF SOCIAL SCIENCES

## Archaeology \& Anthropology

Minor Program Revisions

## Archaeology B.A. /B.Sc. Double Honours

Add ARCH 361.6 to list of required courses, remove ARCH 461.3 as an option to ARCH 462.3 (ARCH 462.3 remains and becomes a required course), reduce the former 12 credit units of 200-level ARCH courses to 9 credit units, and reduce the former 15 credit units of 300 -level or above ARCH to 12 credit units. The requirements for the degree remain 36 credit units.

## Minimum Requirements

36 credit units in Archaeology including:

- 6 credit units at the 100 -level (ANTH 111.3 may be taken for part of these 6 credit units)
- $\quad 129$ credit units at the 200 -level ARCH
- ARCH 361.6
- ARCH 461.3 or ARCH 462.3
- $\quad 15 \mathbf{1 2}$ additional credit units at the 300-level and higher ARCH
- CLAS 247.3, CLAS 248.3, CLAS 356.3 and CLAS 357.3 may also be considered as satisfying the archaeology component of the Double Honours.
Rationale: The skill sets developed through ARCH 361.6 Archaeological Field Methods are considered essential to advanced studies in Archaeology. The course is required for all Honours programs in Archaeology.


## Archaeology B.A. Honours

Requirement C6: Add ARCH 361.6 to required courses. Reduce former 33 credit units of optional courses to 27 , and reduce number of those credit units required at the 300 -level or above to 18 . Remove ARCH 461.3 (ARCH 462.3 now required).

B6 Major Requirements ( 42 credit units)

- ARCH 250.3
- ARCH 251.3
- ARCH 361.6

Choose 3 Credit Units from the following:

- ARCH 461.3
- ARCH 462.3

Choose 3327 credit units senior-level archaeology from the following:
At least 2118 of the 3327 required credit units must be at the 300 -level or higher.

- 200-Level, 300-Level or 400 -Level ARCH Courses
- CLAS 247.3, CLAS 248.3, CLAS 356.3, CLAS 357.3 may also be counted towards this requirement.

Rationale: We require applicants to our graduate program to hold an Honours degree (or equivalent). As graduate students will in all likelihood be undertaking their own archaeological projects and find employment in the Cultural Resource Management industry, it is very important that they have field experience in their undergraduate program. ARCH 361.6 gives them this experience as well as analytical and report writing skills necessary to higher study and employment in the discipline.

## Archaeology B.Sc. Four-year

Requirement C6: Remove ARCH 362.3 and 461.3 from list of restricted options in the major. Rationale: Courses have been deleted.

## Archaeology B.Sc. Honours

Requirement C6: Add ARCH 361.6 and 462.3 as required courses. Remove ARCH 361.6, 362.3, 461.3 and 462.3 from list of restricted options in the major.
C6 Major Requirement ( 48 credit units)

- ARCH 361.6
- ARCH 462.3

Choose 4839 Credit Units from the following:
At least 15 credit units from the list below must be at the 300 -level or higher.

- ARCH 250.3
- ARCH 251.3
- ARCH 270.3
- ARCH 352.3
- ARCH 353.3
- ARCH 361.6
- ARCH 362.6
- ARCH 375.3
- ARCH 385.3
- ARCH 455.3
- ARCH 457.3
- ARCH 458.6
- ARCH 459.3
- ARCH 461.3
- ARCH 462.3
- ARCH 465.3
- ARCH 470.3
- ARCH 471.3
- ARCH 472.3
- ACB 310.3
- BIOL 324.3
- GEOG 235.3
- GEOL 245.3 (formerly GEOL 243)
- GEOL 247.3 (formerly GEOL 246)

Rationale: B.Sc. Honours students in Archaeology should have a firm grounding in practical field and lab analysis skills. The ARCH 361.6 Archaeological Field Methods will provide these. Also, it is expected that Honours students will have some familiarity with theory which they will acquire in ARCH 462.3. It is already a required course within the B.A. Honours program.

## New Course(s)

## ARCH 357.3 The Archaeology of Prairie Settlement

1 Based largely on evidence gained from the archaeological record supplemented by input from history, cultural geography and other disciplines, this course will give students the opportunity to explore the ways in which people have adapted to the challenges of living in the prairie environment. Topics such as the archaeological evidence of spatial patterning of settlements, social context of built environment, use and organization of space, gender, ethnicity and the material culture of settlement will be examined. Case studies dealing with the archaeology of indigenous settlement on the plains, the fur trade, Métis, ranching era and homestead era as well as others will form the focus of discussion.
Perquisite(s): ARCH 250 or 251 or permission of the instructor
Instructor(s): Dr. Margaret Kennedy
Improves department's offering in the field and reflects the research interests of the instructor. Course has been offered twice as Special Topics (ARCH 398.3). The subject content is relevant to instructor's research interests and is complementary to other offerings in Historical Archaeology stream.

## Native Studies

Minor Program Revisions
Native Studies B.A. Honours
B1 Basic Social Science Requirements (minimum 12 credit units)

* (NS 105.3 and NS 106.3) or NS 107.3
* 3 credit units 100-level NS

Choose 6-9 Credit Units from the following:
No change to list.
Rationale: NS 107.3 is now the only 100 -level NS course offered on campus, but students who have taken NS 105.3 and 106.3 will be moving through the program for the next few years. This change accommodates students whether they took one of the three courses, or NS 105 and 106.

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Native Studies B.A. Double Honours
Required Courses
    *(NS 105.3 and NS 106.3) or NS 107.3
    * 3 credit units 100-level NS
    * NS 261.3
    * NS 262.3
    * NS 350.6
    * an additional 24-27 credit units in Native Studies at the senior level, of which at least 9 credit units
must be at the 300-level and 6 credit units must be at the 400-level
```

Rationale: NS 107.3 is now the only 100 -level NS course offered on campus, but students who have taken NS 105.3 and 106.3 will be moving through the program for the next few years. This change accommodates students whether they took one of the three courses, or NS 105 and 106.

## Native Studies Minor

Minor in Native Studies
Requirements
A minor in Native Studies requires $21-24$ credit units, to consist of:

* (NS 105.3 and NS 106.3) or NS 107.3
* 3 credit units 100-level NS
* NS 261.3
* NS 262.3
* NS 264.3
* 6 credit units 200-level Native Studies
* 6 credit units 300-level Native Studies

Rationale: NS 107.3 is now the only 100-level NS course offered on campus, but students who have taken NS 105.3 and 106.3 will be moving through the program for the next few years. This change accommodates students whether they took one of the three courses, or NS 105 and 106.

## Minor Course Revisions

## NS 220 - Aboriginal Rights and the Courts

NS 261 - Aboriginal Intellectual and Cultural Traditions in Western Canada
NS 262 - Aboriginal Narratives of Historical Memory
NS 264 - Aboriginal People and Canadian Politics
NS 265 - Aboriginal People and Development
NS 270 - Literature of Native North America
NS 271 - Aboriginal Women in Canada
NS 272 - Native America USA
NS 280 - Métis History in Western Canada

## NS 281 - First Nations History in Western Canada

Prerequisite change:
Old: 3 credit units 100-level NS and 3 credit units from ANTH 111.3; ARCH 112.3, 116.3; ECON 111.3, 114.3; GEOG 130.3; LING 111.3, 112.3; NS 105.3, 106.3; POLS 111.3, 112.3; PSY 110.6; SOC 111.3, 112.3 (SOC 111.3 and 112.3 were formerly SOC 110.6); WGST 110.6, 112.3

New: 3 credit units 100 -level NS and 3 credit units from ANTH 111.3; ARCH 112.3, 116.3; ECON
111.3, 114.3; GEOG 130.3; LING 111.3, 112.3; POLS 111.3, 112.3; PSY 110.6; SOC 111.3, 112.3 (SOC 111.3 and 112.3 were formerly SOC 110.6); WGST 110.6, 112.3.

Rationale: NS 105 and 106 are no longer offered on campus, and students who take NS 107 may not take either 105 or 106 for credit. This change helps to clarify this relationship.

## NS 430 - Issues in Cultural Preservation

Prerequisite change:
Old: 18 credit units in Native Studies
New: NS 350 and 12 credit units senior NS courses
Rationale: NS 350 is a course on research methodologies, which students are expected to employ in 400level courses.

## NS 440 - Theoretical Perspectives in Native Studies <br> NS 450 - Applied Research in Aboriginal Communities <br> NS 451 - Advanced Research Paper

Prerequisite change:
Old: NS 350 and 6 credit units 300 -level Native Studies.
New: NS 350 and 12 credit units senior NS courses
Rationale: 400-level NS courses require at least 18 credit units of previous NS study.

## NS 462 - Aboriginal People and Northern Development

Prerequisite change:
Old: NS 350 or permission of instructor.
New: NS 265, 350 and 9 credit units senior NS courses
Rationale: 400-level NS courses require at least 18 credit units of previous NS study. NS 265 introduces development topics which are explored in greater depth in this course.

## Edwards School of Business

## New Course

## COMM 119.3: Business Competencies

Lecture 1.5 (x4) Seminar 1.5 (x9) . T1
Prerequisite: None
Calendar description: This course introduces students to business concepts, the business environment and delivers required business competencies that are relevant to business students.
Rationale for introducing this course. The course is designed to combine previously taught skills with other success factors into a unified whole. The skills ensure future success, retention and a sense of identification with the Edwards School of Business. COMM 119.3 is a core class in the B. Comm. Curriculum. Registration in COMM 119.3 is restricted to students pursuing a B. Comm. degree. Students are expected to enroll in COMM 119.3 in their first semester of study at ESB.

In response to an Undergraduate Curriculum Committee initiative to add more business skills, competencies and topics to undergraduate students in the first year of the B. Comm. Program, and in order to generate a better understanding of the role of businesses in society, the Edwards School of Business is proposing a new three credit unit course, COMM 119.3, Business Competencies be added to our core curriculum. The introduction of this course necessitates a curriculum change.

COMM 119.3 has been developed as an integrated three credit unit course designed to start students towards meeting the Skills Goals and Citizenship Goals found in the University of Saskatchewan Learning Charter. Those goals require that all graduates of the University of Saskatchewan will:

- Communicate clearly, substantively, and persuasively.
- Be able to locate and use information effectively, ethically, and legally.
- Be technologically literate, and able to apply appropriate skills of research and inquiry.
- Value diversity and the positive contributions it brings to society.
- Contribute to society, locally, nationally, or globally.

COMM119.3 is designed to introduce students to business concepts and the business environment and delivers required business competencies. The course combines skills development with an introduction to the business environment and emerging business topics and an introduction to student programming designed to support student retention and success. The skills and competencies components of the course ensure that every student has a high level of expertise using business applications and library search techniques providing an opportunity to excel in their studies. Finally, the course is designed foster a sense of identification with the Edwards School of Business.

This course has been designed to capture the efficiencies of a large lecture theatre coupled with personal instruction in our ESB labs. COMM 119.3 is delivered in two parts:

1. Lecture-based content
2. Computer-based content

Each component has a specific set of objectives and an appropriate pedagogy. The lectures and the labs are connected through assignments that require the application of lecture material using application software and library systems within the laboratory.

## Current B.Comm. Curriculum:

The first year of study in the B.Comm. program consists of the following thirty credit units:
COMM 100.3, COMM 101.3, COMM 104.3, COMM 105.3, COMM 109.0, COMM 110.0, ECON 111.3, ECON 114.3, MATH 121.3 or 110.3, and 9 credit units of 100 level non-Commerce electives. The general selection of courses between term one and term two is depicted in the following table:

| TERM 1 (Sept to Dec) | TERM 2 (Jan to April) |
| :--- | :--- |
| COMM 104.3 | COMM 100.3 |
| ECON 111.3 | COMM 101.3 |
| MATH 121.3 or MATH 110.3 | COMM 105.3 |
| 3 credits of non-COMM electives | ECON 114.3 |
| 3 credits of non-COMM electives | 3 credits of non-COMM electives |
| Total of 15 credit units | Total of $\mathbf{1 5}$ credit units |

+ COMM 109.0 in Term 1 or Term 2 (zero credit
+ COMM 110.0 in Term 1 (zero credit workshop)
Year two of the current program requires students take the second library skills class, COMM 209.0.


## Proposed B.Comm. Curriculum:

We are proposing that COMM 119.3 become a requirement of the core B.Comm. Program. The course will be offered in term one only and must be taken in the student's first year of study upon admission. In order to accommodate the introduction COMM 119.3 one 100 level non-commerce elective will be removed from the program. The net effect of this change will be to reduce 21 credit units of 100 level non-commerce electives to 18 credit units of 100 level non-commerce electives. This change still allows for ample flexibility for students and allows students to customize their programs of study to their needs and interests.

An additional change will be the elimination of COMM 109.0, COMM 209.0 and COMM110.0 from the program. A transition plan is found at the end of this memorandum.

COMM119.3 is well differentiated from COMM 101.3, Decision Making I. The ESB Undergraduate Programs Office conducted an extensive consultation on the proposed class to ensure that it provided students with an adequate preparation of material not currently covered in COMM 101.3.
Consultation occurred with:

- Susan McConkey, Library
- Ryan Hockley and Anand Elango, Technology Support Centre
- Dave Muench, Passport to Success co-ordinator
- Professor Colin Boyd, lead instructor COMM101.3
- Undergraduate Programs Office

Funding and Staffing Considerations
The Edwards School of Business is not asking for any central funds to support this curriculum change. Authority for COMM 119.3 will be assigned to the Dean's Office.

COMM 119.3 will be offered yearly in the first semester. We recommend that responsibility for the teaching and delivery of COMM 119.3 be assigned to the Undergraduate Program Office with assistance
from the ESB Technology Support team and the University Library. We will require three sections of 175 students yearly and 18 labs.

The Undergraduate Programs Office has the capacity to deliver COMM 119.3, as the course has been designed to incorporate a number of current activities that reach a limited number of students. For example, Passport for Success currently reaches approximately 100 first year students. With passport transition activities incorporated into the new course, all students will be exposed to success and transition strategies in a cost effective manner.

## Transition Plan:

We recommend implementation of the curriculum change for the fall of 2011. Students who are admitted to ESB for the fall of 2011 will be required to take the new course in the new program of study. No newly admitted students will have taken COMM 109.0, 209.0 or 110.0 as these courses are restricted to ESB students.

Students admitted to the B. Comm. Program prior to 2011, will complete the current program of study. This means they will need to complete COMM 110.0, 109.0 and 209.0 by April of 2012. We will have a full communication with our current students to ensure they are aware of the pending curriculum changes. We will offer sections of COMM 109.0, 209.0 and 110.0 during the 2011-12 transition year. Further, we will do a complete program check using our internal degree audit system to ensure that current ESB students have ample opportunity to complete the classes ahead of elimination. This will include scheduling enough capacity to meet their needs and ensuring a full communications plan with these students.

Students admitted to the B. Comm. Program prior to 2011 who have not completed COMM 109.0, 209.0 and 110.0 at the end of April 2012 will be required to complete the new proposed B.Comm. degree requirements.
These curriculum changes have been approved at the following meetings:

- Approved by the ESB Undergraduate Curriculum Committee on November 5, 2010.
- Approved by the ESB Faculty on November 19, 2010.


## Entrepreneurship

## Changes to ENT course descriptions

The proposed changes to Entrepreneurship (ENT) course descriptions are in response to an inquiry from another college regarding the ability of students to complete both ENT and related COMM classes for use towards a non-business degree. In consultation with the Department Heads in ESB, it was determined that notes should be added to the ENT course descriptions housed in the University Calendar, preventing students from completing multiple courses with overlapping content for credit.

The following notes are recommended for inclusion in the 2011/12 Calendar, to clarify the credit policy for ENT and COMM courses:

## Course Additional Note

ENT 210.3 Students can receive credit for only one of COMM 204.3 or ENT 210.3.
ENT 220.3 Students can receive credit for only one of COMM 211.3, COMM 386.3 or ENT 220.3 .

ENT 230.3 Students can receive credit for only one of COMM 201.3 or ENT 230.3.
ENT 300.3 Students can receive credit for only one of COMM 203.3 or ENT 300.3.
ENT 310.3 Students can receive credit for only one of COMM 447.3, BPBE 495.3 or ENT 310.3.

## Finance \& Management Science

## New courses

## COMM 371.3 Investment Practicum I

## Seminar 1.5 T1 \& T2

Prerequisite: COMM 203 Corequisites: COMM 363 and COMM 367
Calendar description: Gives students practical experience in the identification and selection of financial assets with an application to managing the funds held in the Investment Account of the Student Managed Portfolio Trust (SMPT). Students will develop skills related to evaluating and interpreting financial reports, analyst forecasts, and economic outlooks to compare and contrast the relative merits of investment opportunities within particular industries.
Rationale for introducing this course: This course will help students develop a deeper understanding of financial theory and applications for investment and portfolio management. It will also give them hands on experience dealing with the practical, legal, and ethical issues associated with financial analysis. This course is to be considered an ESB non-major elective.

## COMM 471.3 Investment Practicum II

## Seminar 1.5 T1 \& T2

Prerequisite: COMM 363, COMM 367, and COMM 371
Calendar description: Gives students practical experience in the acquisition, managing, and monitoring of investment securities and entry and exit decisions with an application to managing the funds held in the Investment Account of the Student Managed Portfolio Trust (SMPT). Students will develop skills related to managing a group of financial analysts to compare and contrast the relative merits of investment opportunities among different industries and asset classes. The legal and ethical considerations of investing will be emphasized throughout.
Rationale for introducing this course: This course will help students develop a deeper understanding of financial theory and applications for investment and portfolio management. It will also give them hands on experience dealing with the practical, legal, and ethical issues associated with investment and portfolio management.
This course is to be considered an ESB non-major elective.
These proposed courses have been approved at the following meetings:

- Approved by the Department of Finance \& Management Science on November 3, 2010.
- Approved by the Undergraduate Curriculum Committee on November 5, 2010.
- Approved by the ESB Faculty on November 19, 2010.


## Human Resources \& Organizational Behaviour

## New courses

COMM 343.3 Recruitment, Selection, and Engagement
Lecture $3 \quad \mathrm{~T} 1$ or T2
Prerequisite: COMM 211
Calendar Description: This course is designed to help students identify and apply appropriate practices (which are valid, reliable, and legally defensible) for recruiting and selecting people who will contribute to the overall success of an organization, and for engaging those employees toward favourable organizational (and individual) outcomes. In so doing, the theoretical and empirical underpinnings for these practices are presented.
Rationale for Introducing this Course: Effective recruitment and selection are critical contributors to organizational productivity and employee well-being. Implementation of this course would complete development of academic content in the Human Resources major that would align with required
professional capabilities for the Certified Human Resources Professional designation. Staffing (as accomplished through recruitment and selection) is one of the core aspects of human resources management, and there is currently no course in the ESB dedicated to this functional area of the HR field. Students with an HR Major require conceptual knowledge and practical application of recruitment and selection; the addition of employee engagement content will provide them with additional insight into staffing processes and implications, as well as a unique and valuable scope of knowledge and skills as they enter into the job market. Students from other majors within the ESB may find the course beneficial as well.
Course(s) for which this course will be a prerequisite? COMM 489.3
This course will be required by all HR majors.

## COMM 489.3 Strategic Human Resource Management

Lecture 3 T 1 or T 2
Prerequisite: COMM 342.3 and COMM 385.3
Calendar Description: This course integrates concepts and foundations from the functional areas of human resource (HR) management within a strategic human resources framework. Emphasis is placed on development of analytical and problem solving abilities to formulate and apply HR solutions to real-life organizational problems. The guiding premise for the course is that HR strategies are most effective when internally consistent and aligned with the strategic objectives of the organization.
Rationale for Introducing this Course: This course is intended to provide a capstone synthesis of the coursework taken during the HR major. There is currently no similar course being offered in the HR major. A pilot test was implemented for this course during Fall 2010 as COMM 498.3, and has received positive feedback from the students.
The course will be required as the capstone course for all HR majors.

## COMM 4XX. 3 Experiential Learning

Lecture 1 Seminar 2 credit course offered over both terms (T1 and T2).
Prerequisite: Fourth-year BCOMM students that have been selected to be on an academic team representing the ESB in an undergraduate intercollegiate case competition. Permission of the instructor.
Calendar Description: This course focuses on experiential learning through application of theory and research in the different functional areas of business to case analysis of issues currently facing organizations. The emphasis will be on increasing students' effectiveness in identifying problems and developing solutions across a range of managerial situations, and on enhancing their abilities to communicate their analyses and recommendations. An integral part of this course will be participation in an inter-university case competition.
Rationale for Introducing this Course: This course is intended to help students who are participating in approved inter-university case competitions, in order to help them prepare for these competitions, and to provide course credit for the knowledge and skills that they develop through this process.

## Revised Human Resources (HR) Major

The rationale for the proposed HR major is contained in the memorandum attached.
Current HR Major
The Human Resources Major requires 21 credit units.
REQUIRED COURSES: 15 credit units
COMM 342.3
COMM 105.3
COMM 381.3
COMM 105.3
COMM 382.3
COMM 385.3
COMM 211.3
COMM 488.3 COMM 211.3

ELECTIVES: 6 credit units
COMM 348.3 COMM 105.3
COMM 383.3 COMM 381.3
COMM 384.3 COMM 105.3
COMM 387.3 COMM 381.3
COMM 485.3 COMM 381.3
COMM 487.3 COMM 381.3

## Proposed HR Major

In keeping with the increasing development of academic and professional knowledge in the field, we are proposing that the major increase to eight courses, six of which are specified and two of which will be selected from a specified set of HR electives.

REQUIRED COURSES: 18 credit units
COMM 342.3 - Organization Structure \& Design
COMM 343.3 - Recruitment, Selection, \& Engagement
COMM 381.3 - Industrial Relations
COMM 385.3 - Training \& Development
COMM 488.3 - Strategic Compensation
COMM 489.3 - Strategic Human Resource Management
ELECTIVES: 6 credit units
COMM 348.3 - Leadership
COMM 382.3 - Employment Law
COMM 383.3 - Employment Relations and Labour Markets
COMM 384.3 - Workplace Health and Safety
COMM 387.3 - Labour Law
COMM 441.3 - High Involvement Work Systems*
COMM 481.3 - Collective Bargaining
COMM 485.3 - International and Comparative Employment Relations Systems
COMM 487.3 - Collective Agreement Arbitration
*Note: As it has not been offered for some time, this course no longer appears in the calendar.
This change will be effective for students entering the Human Resources (HR) major in March 2011.
Students currently in the HR or HRM major will be allowed to complete the current major requirements.
These curriculum changes have been approved at the following meetings:

- Approved by the Department of Human Resources and Organizational Behaviour on October 22, 2010.
- Approved by the Undergraduate Curriculum Committee on November 5, 2010.
- Approved by the ESB Faculty on November 19, 2010.


## Management \& Marketing

## New courses

## COMM 358 Sales Management

Lecture 3 . T1 or T2
Prerequisite: COMM 204
Calendar description: This course will provide students with a preliminary understanding of sales; communicating information to customers within an effective relationship based on trust; fulfilling customer expectations through "partnering" relationships and creating a selling environment that requires the use of advanced customer relationship management (CRM). The material presented will be organized
around the four pillars of personal selling: relationship strategy, product strategy, customer strategy and presentation strategy.
Rationale for introducing this course. The department feels that a Sales Management course is an important class for not only marketing majors, but for any business student. People in many occupations and careers, especially business and management, often require sales and sales management skills as part of their everyday activities.

## COMM 458.3 Branding

Lecture 3. T1 or T2
Prerequisite: COMM 352 and COMM 354
Calendar Description: This course is a hands-on class that focuses on how to analyze, evaluate, and manage a brand. Students will learn traditional brand management theory including brand equity and brand positioning. In addition, theories of emotional branding, such as brand personality and brand relationships, and theories of cultural branding will be discussed. All theories will be applied to realworld situations.
Rationale for Introducing this Course: Brands have become one of the most important marketing tools in the new millennium, as marketers seek new ways to engage consumers. The theories of brand management are distinct body of knowledge in the marketing field; the class does not duplicate material learned in related courses such as Integrated Marketing Communications and Retailing. The course has been offered as a "special topics" class and M\&M has determined that there is student demand for the course.

Both courses will serve as electives within the Marketing major and COMM 358.3 will be added to the Marketing functional grouping within the Management Major.

These curriculum changes have been approved at the following meetings:

- Approved by the Department of Management and Marketing in May 2010.
- Approved by the Undergraduate Curriculum Committee on November 5, 2010.
- Approved by the ESB Faculty on November 19, 2010.


## College of Engineering

The following items have been approved by Academic Programs \& Standards Committee:

## 1. Biological Engineering (formerlv Agricultural and Bioresource Engineeering) Calendar

## Changes for 2011-12

i) All ABE Undergraduate courses be changed to BLE and Revision of Courses (Year \& Term)

## a) From: Agricultural \& Bioresource Engineering

Agricultural and Bioresource Engineering, often referred to as Biological or Biosystems Engineering, integrates engineering science and design with applied biological sciences for the solution of problems involving plants, animals, and the natural environment. It deals with patterns of relationships among organisms and their environments, and engineering design to develop processes, machines, and systems that influence, control, or utilize biological materials and organisms for the benefit of society. Graduates are employed in the agricultural and food industries, as well as in other resource industries such as forestry and mining.

Students must follow the program of study that was in place at the time of their entrance to the College of Engineering. However, the College reserves the right to make necessary program adjustments. It is recommended that students contact the Engineering Student Centre to confirm their program of study on a regular basis.

## Themes

Consult with the department for further information on the following three themes:
A theme is a predetermined set of courses approved by the department. The set of courses will have a focus and serve an integrative purpose. Students may select courses from more than one theme. Completion of a theme will not be indicated on the university transcript but can be indicated on a resume or verified for an employer by the department. Students are strongly encouraged to fulfill the elective courses by selecting a "theme".
Agricultural Systems Engineering, creating safer, more efficient, and environmentally sustainable production systems for plants and animals; machinery design for agriculture, horticulture, acquaculture, and forestry; building systems for livestock, laboratory animals, horticulture, controlled-environment chambers, and storage of agricultural and food products; instrumentation, monitors and controls; standards and safety.
Bioprocess Engineering, improving and converting biological materials; value-added processing (drying, binding, separation) of agricultural crops for use as food, feed, fibre, energy; nutraceuticals and pharmaceuticals; primary processing of waste materials for land application; quality control in processing operations; handling systems for granular and fibrous materials; energy conservation and utilization; computer image analysis; engineering in support of biotechnology.
Natural Resources Engineering, managing and protecting resources; soil and water conservation; water management for irrigation and drainage; soil remediation; utilization of waste materials in plant-soil systems

## To: Biological Engineering

Biological Engineering (formerly Agricultural and Bioresource Engineering) integrates engineering science and design with applied biological sciences for the solution of problems involving plants, animals, and the natural environment. It deals with engineering design to develop processes, machines, and systems that influence, control, or utilize biological materials and organisms for the benefit of society. Graduates are employed in the agricultural and food industries, resource industries such as forestry and mining, land and water management sectors, bio-fuels and bio-materials industries as well as the medical field for both humans and animals.
Biological engineers ensure that we have the necessities of life: safe and plentiful food to eat, pure water to drink, clean fuel and energy sources, and a safe, healthy environment in which to live. More specifically, Biological Engineering is the application of engineering principles to address challenges in the life sciences which includes fields of biology, ecology, and medicine.

Students must follow the program of study that was in place at the time of their entrance to the College of Engineering. However, the College reserves the right to make necessary program adjustments. It is recommended that students contact the Engineering Student Centre to confirm their program of study on a regular basis.

## Themes

Consult with the department for further information on the following three themes:
A theme is a predetermined set of courses approved by the department. The set of courses will have a focus and serve an integrative purpose. Students may select courses from more than one theme.

Completion of a theme will not be indicated on the university transcript but can be indicated on a resume or verified for an employer by the department. Students are strongly encouraged to fulfill the elective courses by selecting a "theme".

BIOMECHANICAL Systems Engineering, creating safer, more efficient, and environmentally sustainable production systems for plants and animals; machinery design for agriculture, horticulture, acquaculture, and forestry; building systems for livestock, laboratory animals, horticulture, controlledenvironment chambers, and storage of agricultural and food products; instrumentation, monitors and controls; standards and safety.

Bioprocess Engineering, granular and fibrous materials; energy conservation and utilization; computer image analysis; engineering in support of biotechnology.

Students wanting to apply to the College of Medicine from the Biological Engineering program under the "Prerequisites Only Requirement" must complete the Bioprocess Engineering theme with restricted elective choices and obtain "a minimum overall average of $78 \%$ with no individual prerequisite below 60\%" (http://www.medicine.usask.ca/education/medical/undergrad/admissions/admissionsinformation/index.html)

Natural Resources Engineering, managing and protecting resources; soil and water conservation; water management for irrigation and drainage; soil remediation; utilization of waste materials in plant-soil systems.

b) From: Year 2 Term 2 ( |  |  |
| :--- | :--- |
|  | 3 credit units Technical or Science Elective |
| To: | Year 2 Term 2 |
|  | $\mathbf{3}$ credit units Technical or Science Elective List 2 |

c) From: Year 3 Term 1

GE 348.3
6 credit units Technical or Science Elective
Year 3 Term 2
3 credit units Agricultural or Life Science Elective
3 credit units Senior Humanities/Social Science Elective
Year 3 Term 1 or Term 2
BLE 312.3 (T1) or CE 319.3 (T2)
Year 4 Term 1 or Term 2
GE 449.3
18 credit units Engineering Electives with a minimum of 12 units in BLE course offerings
3 credit units Agricultural or Life Science Elective
To: Year 3 Term 1
BLE 312.3
Year 3 Term 2
3 credit units Technical or Science Elective List 4
Year 3 Term 1 or Term 2
6 credit units Agricultural or Life Science Elective List 3
3 credit units Technical or Science Elective List 4
OR GE 348.3 (Note: Students not taking GE 348 in Year 3 must do so in Year 4)
3 credit units Senior Humanities/Social Science Elective

## Year 4 Term 2 <br> GE 449.3

Year 4 Term 1 or Term 2
12 credit units BLE Elective List 5
6 credit units Engineering Elective List 6
3 credit units Technical or Science Elective List 4
OR GE 348.3 (Note: Students not taking GE 348 in Year 3 must do so in Year 4)
e) From: Electives

Natural Science Elective
Biological Engineering program must take BIOL 120.3 in second year if they do not take BIOL 120.3 in first year.
List 1

- BIOL 120.3
- CHEM 115.3
- GEOL 121.3
- PHYS 127.3

List 2

- ASTR 213.3
- ASTR 214.3
- CHEM 221.3
- CHEM 231.3
- CHEM 242.3
- CHEM 250.3
- EVSC 203.3
- EVSC 210.3
- GEOG 120.3
- GEOL 224.3
- GEOL 245.3
- GEOL 258.3
- PHYS 251.3

To: Electives
Students in the Biological Engineering program must take BIOL 120.3 in second year if they do not take BIOL 120.3 in first year
List 1 - Natural Science Elective

- BIOL 120.3
- CHEM 115.3 (recommended for Bioprocess Engineering theme)
- GEOL 121.3 (recommend for Natural Resources Engineering theme)
- PHYS 127.3

List 2 - Technical or Science Elective (Year 2 Term 2)

- GE 226.3 (recommended for Biomechanical Systems Engineering theme)
- BMSC 200.3 (recommended for Bioprocess Engineering theme, required for Pre-Medicine)
- OR an approved Technical or Science Elective

List 3-Agricultural or Life Science Elective Term 1

- BMSC 224.3 (limited enrolment available, please contact departmental advisor)
- BIOL 121.3 (recommended for pre-medicine, must take BIOL 121 or BMSC 224)
- FABS 212.3 (recommended for Bioprocess Engineering Theme, required for pre-medicine OR
- an approved Agricultural or Life Science Elective

Term 2

- BLE 275.3 (recommended for Biomechanical Systems Engineering Theme)

OR

- an approved Agricultural or Life Science Elective

List 4-Technical or Science Elective (Year 3 or 4)
Term 1

- CHEM 250.3 (recommended for Bioprocess Engineering theme, required for pre-medicine)
- FABS 436.3

OR

- an approved Technical Science Elective

Term 2

- BMSC 230.3 (recommended for Bioprocess Engineering theme, required for pre-medicine)
- ME 490.3 (recommended for Biomechanical Systems Engineering theme, limited enrollment)
- CE 319.3 (recommended for Natural Resources Engineering theme)

OR

- an approved Technical Science Elective

List 5 - Biological Engineering Electives
Term 1 -- BLE 431.3, BLE 432.3, BLE 482.3
Term 2 -- BLE 441.3, BLE 451.3, BLE 462.3, BLE 481.3
Term 1 and Term 2 -- BLE 475.3

List 6 - Engineering Electives (can be used as electives in List 4 provided prerequisites are met)
Term 1 -- CE 315.3, CE 317.3, CE 328.3, CE 420.3, CE 464.3, GEOE 475.3, ME 316.3, ME 324.3
Term 2 -CE 319.3, CE 327.3, ME 314.3, ME 330.3, ME 490.3
Term 1 or Term 2 - CHE 453.3, CHE 454.3, CHE 461.3, CHE 464.3, CHE 477.3
OR an approved Engineering Elective
Rational: Name change and description: November $18^{\text {th }}, 2010$ the University Council voted to change the degree name to Biological Engineering. The primary description of the program is unchanged but additional information was added regarding a description of the discipline that is found in the new college brochure.

Changes to the program course requirements:
The program was not changed from the original Agricultural and Bioresource Engineering program. Changes indicated were made to make it clearer to students and program advisors the recommended or required electives for each of the three theme areas. The audit sheet for Biological Engineering remains the same as for the previous Agricultural and Bioresource Engineering program.
i) NEW Course - CHE 326.3 Plant Design Project)

## ChE 326.3 Plant Design Project

Lecture: 1.5Tutorial: 1.5 T2
Prerequisite: ChE 325 (taken)
Calendar description: Students will perform a detailed design of a chemical engineering process including plant location, plant layout, Process Flow Diagram (PFD), material and energy balances, simulation, equipment sizing, costing, safety, control, piping and instrumentation diagram (PID) and economics. Each student will act as a process manager for a specific phase of the project. Projects will be provided by the course instructor.
Rationale for introducing this course. With the new approach being used by the Engineering
Accreditation Board to assess design Accreditation Units, the Department of Chemical Engineering has had to replace important lecture material in ChE 325.3 to allow students to perform a design project in that course. This new course will now move that project to a separate course, and by so doing, expand the project to include more phases of the chemical plant design process. This will ensure the chemical engineering program at Saskatchewan meets the design accreditation units for the next accreditation visit. ChE 325 will no longer include a plant design project.
Other courses or program affected
ChE 325.3 will no longer have a design project and will be moved to Term 1 of the third year program. ChE 320.3 (Fluids II) will become a technical elective instead of a required course for ChE students, which is similar to all other chemical engineering programs in Western Canada. Course(s) for which this course will be a prerequisite? ChE 422.6
Is this course to be required by your majors, or by majors in another program? Yes, compulsory for ChE students.

From: Year 3 Term 1
CHE 320.3 Fluids II
Year 3 Term 2
CHE 325.3 Process Engineering and Design I

## To: Year 3 Term 1 <br> CHE 325.3 Process Engineering and Design I

## Year 3 Term 2

CHE 326.3 Plant Design Project
ADD CHE 320.3 Fluids II to a Group B technical elective that will be offered every 2nd year.

## Prerequisite Change - CHE 422.6 Process Engineering and Design II

From: Prerequisites: RCM 300 and CHE 315, 320, 322, 323, 324, 325 and 333.

Prerequisite/Corequisites: CHE 411, CHE 421 and CHE 423.
To: Prerequisites: RCM 300 and CHE 315, 322, 323, 324, 325, 326
and 333.
Prerequisite/Corequisites: CHE 411, CHE 421 and CHE 423.

## Prerequisite Change - CHE 325.3 Process Engineering and Design I

From: Prerequisites: CHE 220 and CHE 323 (Taken)
To: Prerequisite: CHE 220
Prerequisite/Corequisites: CHE 323

Rationale: With the new approach being used by the Engineering Accreditation Board to assess design Accreditation Units, the Department of Chemical Engineering has had to replace important lecture material in CHE 324.3 to allow students to perform a design project in that course. This new course will now move that project to a separate course, and by so doing, expand the project to include more phases of the chemical plant design process. This will ensure the chemical engineering program at Saskatchewan meets the design accreditation units for the next accreditation visit. CHE 325 will no longer include a plant design project. Conversations with student representatives support this idea as CHE 326 will be a "practice run" of the capstone class, CHE 422.

No other Western Canadian Chemical Engineering Department has two compulsory fluids courses and by slightly modifiying our CHE 210 (Fluids I) content, we can cover the same basics and align ourselves with other Western Canadian institutions. CHE 320, as a technical elective, can focus more on industrial fluids problems. This move also increases the number of technical electives from which our students can choose.

Looking at the impact on AUs:

| Before | $\underline{\text { ES }}$ | $\underline{\text { ED }}$ | $\underline{\text { ES+ED }}$ |
| :--- | :--- | :--- | :--- |
| CHE320 | 42.7 | 0 | 42.7 |
| CHE325* | 11.4 | 34.2 | 45.6 |
| Total | $\mathbf{5 4 . 1}$ | $\mathbf{3 4 . 2}$ | $\mathbf{8 8 . 3}$ |
|  |  |  |  |
| 点ter | $\underline{\text { ES }}$ | $\underline{\text { ED }}$ | $\underline{\text { ES+ED }}$ |
| CHE325** | 32.0 | 10.7 | 42.7 |
| CHE326** | 0 | 45.6 | 45.6 |
| Total | $\mathbf{3 2 . 0}$ | $\mathbf{5 6 . 3}$ | $\mathbf{8 8 . 3}$ |

*CHE 325 AUs were determined by the K-factor and a $25 \%$ ES $+75 \%$ ED split.
${ }^{* *}$ New CHE 325 AUs do not use the K-factor and now have a $75 \%$ ES + $25 \%$ ED split.
${ }^{* * *}$ CHE 326 AUs calculated using a K-factor and $100 \%$ ED.
If we consider the last accreditation report submitted, and look only at the ES and ED AUs by Qualified instructors, we had 621 AUs of ES ( 225 needed), 282 AUs of ED ( 225 needed) and 910 AUs of ES+ED ( 600 needed). Thus this motion can only help our AU count for accreditation.

## 3. Civil Engineering Calendar Changes for 2011-12

i) Prerequisite Change - CE 212.3 Civil Engineering Materials

From: Prerequisite(s): CHEM 114
To: Prerequisite(s): CHEM 114 (taken)
Rationale: This proposed change is based on the following evaluation by Prof. Leon Wegner, the instructor of CE 212: "A "taken" prerequisite is likely sufficient for background. CE 212 does not rely heavily on chemistry, but students do need to have prior exposure." The proposed prerequisite change has been ratified by the Undergraduate Affairs Committee, Dept. of Civil and Geological Engineering.
ii) Revision of Year 4 CE Electives

To ensure a sufficient background in fundamental aspects of Civil Engineering
program.
From: Year 4 Term 1 or Term 2
15 credit units CE Elective Courses (Groups A to F)
3 credit units Engineering or Senior Science Elective

## To: $\quad$ Year 4 Term 1 or Term 2

15 credit units CE Elective Courses (Groups A to E)
3 credit units CE Elective (Groups A to F)
From: CE Elective Courses
CE electives are offered subject to minimum enrolment and staffing considerations. Electives must include courses from at least three
Groups $A, B, C, D, E$ and may include courses from Group $F$.
Group F: Geological
GEOE 315.3, GEOE 466.3
To: CE Elective Courses
CE electives are offered subject to minimum enrolment and staffing considerations. Electives must include courses from at least three of
Groups A, B, C, D or E.
Group F: Related Electives
GEOE 315.3; GEOE 466.3; GEOG 341.3, GEOG 350.3
Rationale: There is concern that it is now possible to complete the CE program taking as few as three CE electives (which could potentially include GEOE 475 and ABE 481), if the two courses in Group F were selected. In that case, there could potentially be some confusion as to whether the program was truly CE or GEOE, or some undefined combination of both. The proposed change would force CE students to take at least 5 courses from the traditional "core" areas of civil engineering, without precluding the opportunity to have some exposure to related GEOE courses (notably GEOE 315), or other related fields. With the establishment of the Environmental Engineering program, it is felt that there is less need for flexibility in allowing CE students to pick up additional science related courses. The "Open Elective" was retained because it serves several valuable purposes:

- Providing a slot for use of a 1st year science course other than Geol 121;
- Providing a slot for the "study abroad" option; and
- Providing flexibility for incorporating courses that may count toward the Communication or Entrepreneurship options.

4. Electrical and Computer Engineering Calendar Changes for 2011-12
i) To REMOVE EE 290.1 Computer Tools for Engineering Analysis from the Computer Engineering program in Year 2 Term 1.

DELETE Course - EE 290.1 Computer Tools for Engineering Analysis
Rationale: The course will no longer be offered. The material taught in EE 290 (Computer Tools for Engineering Analysis) will be incorporated in EE 216 (Probability, Statistics and Numerical Methods). A motion to delete EE 290 from the CME program was passed by the Department of Electrical and Computer Engineering.

## ii) Calendar Description Change for EE 391.3 Electrical Engineering Laboratory II

From: A laboratory course that familiarizes the student with laboratory
equipment, techniques and methods required to construct, troubleshoot, verify and investigate electrical circuits and assemblies. Practical laboratory sessions or projects supplement and complement the requisite courses and the EE program material in general. The student will investigate the practical limitations of logic hardware and operational amplifiers, second order systems and Fourier series, FET amplifiers, noise sources, virtual instrumentation, and an introduction to programmable logic devices, microcontrollers and digital signal processing.

To: A laboratory course that familiarizes the student with laboratory
equipment, techniques and methods required to design, construct, troubleshoot, verify and characterize electrical circuits and assemblies. Practical laboratory sessions or projects supplement and complement the requisite courses and the EE program material in general. Students will investigate and apply the principles of inductive devices; apply their knowledge of complex AC power and electronic measurement; and employ their knowledge of microcontroller programming and control system theory to design, build and test various electric systems.
Rationale: The rationale for the change is EE 391 (Electrical Engineering Laboratory II) has been updated with new experiments which necessitate a minor change in the calendar description.

## Revision of Year 4 EE Electives

From: Year 4 Term 1
9 credit units Group A electives
Year 4 Term 2
6 credit units Group B/C/D electives

## Group Electives

Group A: CME 451.3, EE 441.3, EE 444.3, EE 445.3, EE 456.3, EE 461.3
Group B: EE 332.3, EE 402.3, EE 442.3, EE 443.3
Group C: EE 332.3, EE 458.3, EE 471.3, EE 472.3
Group D: EE 480.3, CMPT 434.3 or an approved course from Science or
Engineering
To: Year 4 Term 1
9 credit units Technical electives
Year 4 Term 2
6 credit units Technical electives
Technical Electives
Technical electives are offered subject to minimum enrolment limits and staffing considerations. Consult with the Department to determine the availability of specific electives.
Term 1: CME 451.3, EE 432.3, EE 441.3. EE 444.3, EE 445.3, EE 456.3, EE 461.3
Term 2: EE 332.3, EE 402.3, EE 432.3, EE 442.3, EE 443.3, EE 458.3, EE 471.3, EE 472.3, EE 480.3, CMPT 434.3, EP 271.3
Term 1 or Term 2: or an approved course Science or Engineering
Rationale: The division of elective courses in the EE program into groups is artificial and was done only to indicate the scheduling of the various courses. The department has never distinguished the courses by content, and any course can be used to fulfill the program requirements regardless of group. The system is confusing both to students and the personnel in the student centre. The simple listing proposed should make the program requirements clearer.

## v) EP 271.3 Heat Kinetic Theory and Thermodynamics as a Technical Elective

To ADD EP 271.3 (Term 2) to the Technical electives on the EE program
Rationale: Thermodynamics is the basis for thermal power generation which is still the dominant means for the generation of electricity and thus would provide useful background knowledge for electrical engineering students who intend to work in the power industry. The subject is not adequately covered in EE courses. The EP Department will allow a prerequisite waiver of the course for the EE students (see email.)
i) That the List 1 courses be listed under List 2 and to also $\boldsymbol{A D D}$ EE 472.3 Optoelectronics and Photonics under List 2 and ADD the 300 or 400 level MATH or STAT courses to List 2.

## Engineering or Science Electives

```
From: List 1
    EE 431.3
    EE 432.3
    EE 480.3
    EP431.3
List 2
3 credit units Engineering or Science Electives (excluding MATH or STAT courses)
To: List 1
    EE 431.3
    EE 432.3
    EE 480.3
    EP431.3
List 2
    EE 431.3
    EE 432.3
    EE 472.3
    EE 480.3
    EP 431.3
    3 credit units Engineering or Science Electives (including 300 or 400 level MATH or STAT
courses)
```

To ADD the following notes for the courses listed below:
EE 472.3 - Students that have credit for EP 431 may not take this course for credit.
EP 431.3 - Students that have credit for EE 472 may not take this course forcredit.
Rationale: Currently the EP program lists EP 431 "Optical Systems and Materials II" on a short list of engineering electives that contain at least $25 \%$ accredited design. This course uses the same text book and covers much of the same material as EE 472; however EE 472 does not contain any design component. The faculty of the Physics and Engineering Physics Department voted on motion in May 2010 which recognizes the large degree of similarity of these two courses and supports the addition of EE 472 as an elective in the EP program. EE 472 will be added only the list of open science electives and not the short list of electives that include an accredited design component. This change should enhance the efficiency of the programs without sacrifice of the learning experience.
ii) Change Terms for PHYS 356.3 and PHYS 371.3

From: Year 3 Term 1: PHYS 371.3
Year 3 Term 2: PHYS 356.3

## To: Year 3 Term 1: PHYS 356.3

Year 3 Term 2: PHYS 371.3
Rationale: The level of difficultly of the material in PHYS 371 is significant; the extra term of maturity and exposure to upper level physics concepts makes the students more well prepared for PHYS 371. The students are well prepared for PHYS 356 in Term 1 by taking EP 229, which is a Year 2 required course.
iii) Prerequisite Change for EP 317.3 Applied Physics of Materials

From: Prerequisite(s): PHYS 371 and PHYS 381
To: Prerequisite(s): PHYS 381 or PHYS 383

## Prerequisite(s) or Corequisite(s): PHYS 371

Note: This course is now in Term 2
Rationale: This change brings the requirements better in line with the material required for taking EP 317 and provides opportunity for taking either Phys 383, typically taken by the Honours Physics students, or Phys 381, typically taken by the EP students, both of which provide the required background for EP 317.

## 6. Environmental Engineering Calendar Changes for 2011-12

i) Change the Natural Science Electives

From: $\quad$ Year 2 Term 1 or Term 2
6 credit units Natural Science elective

## To: $\quad$ Year 2 Term 1 or Term 2 <br> 6 credit units from BIOL 120, CHEM 115 or GEOL 121

Rationale: Some students may be a little bit confused by our referring to all 3 basic sciences as "Natural Electives". Between their 1st year science elective and the two terms of 2nd year, they have to complete all three of these courses by the end of 2 nd year.

## 7. Geological Engineering Calendar Changes for 2011-12

NEW Course - GEOE 377.3 Introduction to Mining and Mineral Processing Engineering

## GeoE 377.3 Introduction To Mining And Mineral Processing Engineering

3 Lecture 1.5 Tutorial T1
Prerequisite: GE 213 or Corequisite Geol 465 Metalliferous Mineral Deposits
Calendar description: This course provides the student with a basic understanding of mining engineering and the mining industry. The mining component of the course will introduce the drill and blast cycle, mining methods, and the economic evaluation of mineral properties. The mineral process-engineering component will introduce mineral separation processes including gravity, electrostatic and flotation separation.
Rationale For Introducing This Course Increasingly there is demand from the mining industry for qualified engineers. In Saskatchewan, a significant proportion of our Geological, Mechanical and Chemical Engineering students enter the mining industry locally and internationally after graduation. Student interest in this course will inform decisions regarding the development of a mining option in Geological Engineering and a mineral processing option in Chemical Engineering.
Course(s) to be deleted? This course replaces GEOE 498
Is this course to be required by your majors, or by majors in another
program? No. This course, however, can be used as a Group C elective in Geological Engineering This course can fulfill the Group C Elective on the GEOE program.
This coursed was offered as a Special Topics course in the 2009-10 (Term 2) and is also offered in the 2010-11 (Term 1).
Rationale: Increasingly there is demand from the mining industry for qualified engineers. In
Saskatchewan, a significant proportion of our Geological, Mechanical and Chemical Engineering students enter the mining industry locally and internationally after graduation. Student interest in this course will inform decisions regarding the development of a mining option in Geological Engineering and a mineral processing option in Chemical Engineering.
8. Mechanical Engineering Calendar Changes for 2011-12
i) Prerequisite Change for ME 313.3 Mechanics of Materials

From: Prerequisites: GE 213, MATH 224 (Taken) and [ME 251 (Taken) or ABE
311 (may be taken concurrently)]
To: Prerequisites: GE 213 (Taken), MATH 223 (Taken), MATH 224
(Taken) and [ME 251 (Taken) or BLE 311 (may be taken concurrently)]
Rationale: An exemption has been given in the past for students who have taken GE 213 but not passed and they have been able to do quite well in ME 313. The course instructor believes that ME 313 and GE 213 consider two different aspects of mechanics and if the basic definitions are known then students should be able to successfully complete ME 313.
ii) Prerequisite Change for ME 490.3 Design of Fluid Circuits

From: Prerequisites: ME 215
To: Prerequisites: ME 215 or CE 225 or CHE 210.
Rationale: This was the way it has been in the past but the College made up "prerequisite equivalences" and then dropped the CE 225 or CHE 210. This means that if students are not aware of the equivalences they may not know that they can take ME 490. In particular, students from the ABE program may not realize that they could take the course unless they were advised to do so.
9. Rhetorical Communication Calendar Changes for 2011-12
i) NEW Course - RCM 408.3 Rhetorical Composition

## RCM 408.3 Rhetorical Composition

Lecture 3 T1 or T2
Prerequisite: RCM 300 or 24 credit units from RCM Non-EN Alternatives
Calendar description: The written word is the basic currency of both the academic and industrial economies. Not only must professionals write reports and proposals for communities of their peers, but they must also communicate often with non-specialist audiences. This course equips students with classical and contemporary rhetorical principles in order to help them appreciate the purpose, audience, and constraints of the rhetorical situation. It then provides them with various contexts for practicing descriptive, expository, narrative, and persuasive elements of academic, professional, and technical writing, all of which types they may expect to encounter during the course of their careers as students and professionals. Note: This course does not provide specialized instruction for ESL students.
Rationale for introducing this course. The current curriculum of the Professional Communication Option is particularly strong in oral communication, but it still requires a course on the application of the principles of rhetoric to the different genres of professional and technical writing. Although the Department of English offers introductory composition courses, their courses focus on literary analysis and cultural studies. RCM 408 instead focuses on the composition of descriptive, expository, narrative, and persuasive prose.
This course has been offered as RCM 498 Special Topics for two years.
RCM 408 fills a need for advanced composition training with both the College of Engineering and the College of Agriculture and Bioresources. It will be offered in the fall term, which will ensure that at least one advance writing course is offered in each term.
Course(s) for which this course will be a prerequisite? This course can be used as a prerequisite for our other RCM 400 level courses.
ii) Name Changes for $R C M$ 403.3. and $R C M 407.3$
a) From: RCM 403: Advanced Professional Writing Techniques

To: RCM 403: Professional Document Design and Editing
b) From: RCM 407: Language Structure for Professional Communication

To: RCM 407: Language Structure in Professional Communication
Rationale: The addition of RCM 408 allows RCM 403 to drop some general composition material. RCM 407 name change better reflects approach of the course.

## COLLEGE OF GRADUATE STUDIES \& RESEARCH

## Johnson-Shoyama Graduate School

## Course Deletion: INTR 810.3 - MIT Capstone Course

Rationale: The Master of International Trade committee, which manages the MIT program, at a recent meeting and after lengthy deliberation, has decided that a capstone course for the program, now identified as INTR 810.3 but not yet developed, is not required and should be dropped. When the program was initially conceptualized, the content of its proposed courses had not been fully developed. Most were to be and have been adapted from courses already taught in units participating in the program to take into account the aims of the program and the anticipated academic preparation of its students. It seemed clear that instructors would have on an ongoing basis to refer to the subject matter of other program courses and that there would be inevitable overlap in the material from different courses given the well-defined focus of the program.
Now that the courses have been developed and some of them have been taught this has been confirmed. Instructors explicitly integrate their material with that of other courses and the literature used in the courses does also. This is so even in INTR 801.3, Research Methods in International Trade Policy, in which methods commonly used in the trade policy literature are taught and examples from that literature used in assignments. In that sense, each course contributes explicitly to the functions that a capstone course in a less focused, more loosely structured program with more disparate subject matter might serve, and many such programs do not have a capstone course. In a very real sense each course in the MIT program is a mini-capstone course, especially INTR 805.3, The Politics of International Trade, which discusses the program's material from a government and international organization (e.g., WTO) decision making perspective. The issues that are discussed in those decision making processes involve the matters discussed in most of the other MIT course and this will be reflected in the INTR 810.3 material. A capstone course at the end of the program would thus be largely redundant, and with tuition at $\$ 2000$ per course it is necessary to anticipate the response of students who will inevitably identify and question that redundancy.
This is to spell out the implications of deleting INTR 810.3 for the total number of credit units required of students to complete the Master of International program. The present program requirement is for 30 credit units of course work, i.e., for ten three credit unit courses. The deletion of INTR 810.3 means that the program requirement is reduced to 27 credit units of course work, hence students will not have to take an additional course to replace the deleted three credit unit course. Such a course would, at any rate, not be available online since very few graduate courses are delivered in this fashion at the University of Saskatchewan. and none that would complement the MIT program. Hence the committee feels comfortable with a reduction of the credit units from 30 to 27 because its members feel that students would not he short changed as a result.
Contact: hans.michelmann@usask.ca
Approval: (Reduction of Program Requirements) C.G.S.R. Masters Committee - March 2008
C.G.S.R. Student Affairs Committee - September 2010

## Microbiology \& Immunology

## Course Deletion:

MCIM 850.3 - Tumor Biology

## Rationale:

The adjunct faculty member who coordinated the course is no longer in the department. The course has not been offered for several years. There in low interest by faculty to recommend this course to students. Very few of the students in the department have taken BIOC 430 or BIOC 830 , which is a prerequisite to the course.
Contact: peter.bretscher@usask.ca
Approval: C.G.S.R. Student Affairs Committee - November 2010

## Psychiatry

## New Graduate Course:

PSIA 853.3 - Neurobiology of Mental Illness

## Prerequisite:

Permission of the course coordinator (with the expectation that the students will have a good background in biology or biochemistry)

## Calendar Description:

Insight into neuropsychiatric illness has benefited from newer experimental approaches. Circuit analysis (spanning the molecular to the whole animal/behaviour) now includes noninvasive optical methods and genetic animal models of a given disease. Integration of these approaches present a current view of factors which may contribute to the neurobiology of mental illness.

## Rationale:

The discipline of biological psychiatry has undergone many new developments in the last three months. At the same time, the basic science faculty complement in the Department of Psychiatry has undergone a major turnover. Developing courses, such as the one proposed herein, was viewed by the Dean of Medicine and the Provost, following the transfer of Dr. Walz to the Department of Psychiatry, as a benefit to the department and a worthwhile use of Dr. Walz's teaching and research expertise. In the College of Medicine there is an urgent need to bridge clinical and basic science. This course will act as such a bridge to link cellular and molecular neurobiology with systems neurobiology and, ultimately, examples of clinically relevant neuropathologies.
Contact Person: wolfgang.walz@usask.ca
Approval: C.G.S.R. Student Affairs Committee - November 2010

## Item for Information:

## Food \& Bioproduct Sciences

Graduate Course Modification:
APMC 830.3 Microbial Ecology
New Title: Advanced Environmental Microbiology

## Rationale:

This is a name change to appropriately capture course material and content and to mirror the Undergraduate Course title of FABS 430 which is currently called Environmental Microbiology.

