## 16. FACULTY OF SCIENCE

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### 16.1 General Information

### 16.1.1 INQUIRIES

General inquiries can be directed to:
Faculty of Science Student Services Office
Room 238, Laboratory Building
University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4199; fax: 306-585-4894
Email: science@uregina.ca
Website: www.uregina.ca/science
Faculty and Staff:
www.uregina.ca/science/about/faculty-staff/index.html

### 16.1.2 StRUCTURE OF THE FACULTY

The Faculty of Science has six departments: Biology, Chemistry and Biochemistry, Computer Science, Geology, Mathematics and Statistics, and Physics.

### 16.1.3 Undergraduate Programs

The Faculty of Science offers programs leading to the degrees of Bachelor of Science and Bachelor of Science Honours in all departmental disciplines, Geography, Economics and Psychology, as well as the Certificate in Computer Science. The Faculty also offers combined Bachelor of Science programs in a number of interdisciplinary areas, as well as five offered jointly with Saskatchewan Polytechnic. A Certificate program in Indigenous Health Studies is offered in co-operation with the First Nations University of Canada. A program in Environmental Health and Science (BSc in Environmental Health and Science) is offered in partnership with the First Nations University of Canada (see §12.10.10).
The Faculty of Science also offers several pre-professional transfer and qualifying programs for degrees offered by other institutions. This includes qualifying programs in Agriculture, Chiropractic, Dentistry, Law, Medicine, Nutrition, Occupational Therapy, Physical Therapy, Optometry, Pharmacy, Physical Therapy and Veterinary Medicine. For more information on these programs, see §20 - Transfer Programs in this Undergraduate Calendar.
Those students in the Faculty of Science who are not candidates for a degree may take courses for which they have the necessary prerequisites.

### 16.2 Admission, Re-Admission, Transfer

Please refer to §2 for University policies on Admission,
Readmission, and Transfer.

### 16.2.1 RESTRICTIONS ON TRANSFER

Applicants for transfer to the Faculty of Science from another faculty or another post-secondary institution must meet the High School Admission criteria of the Faculty of Science (§2.4.1, minimum average of $70 \%$ ), or have completed 24 credit hours as listed in §2.4.2.
Students who have failed more than 15 credit hours are not eligible for transfer to the Faculty of Science except by permission of the Associate Dean (Academic).
Applicants who have failed a core requirement of the Faculty of Science (CS 110, MATH 110, ENGL 100, or ENGL 110), after the maximum number of repeat attempts are not admissible except by permission of the Faculty.

### 16.2.2 Science Qualifying Process

Students possessing a high school admissions average between 65\% and $70 \%$ or a post-secondary UGPA (minimum 24 credit hours) between $60 \%$ and $65 \%$, and/or are missing a course requirement (ie. Math A30, B30 or C30, Pre-Calculus 30, science course) will be admitted to the Science Qualifying Process.

## Science Qualifying students are:

- Not permitted to begin their program in the Spring/Summer semester without permission of the Associate Dean (Academic);
- Limited to 12.0 credit hours per term;
- Must complete the missing pre-requisite or approved replacement course;
- Must attend the academic advising session prior to first year registration; and
- Must see an advisor prior to registration every semester until Science Qualifying conditions are met.

Once a student has reached 18.0 credit hours, completed the necessary course requirements and obtained a UGPA of $65 \%$ or higher, they will be automatically moved from Science Qualifying to Science. Students who meet the course requirements and obtain a Post-Secondary UGPA of $65 \%$ prior to completing 18.0 credit hours may request, at the Science Student Services office, to be admitted to the Bachelor of Science program.

### 16.2.3 Petition Guidelines

See also §2.7.

### 16.2.3.1 Following a First Required To Discontinue (RTD) or Forced to Withdraw (MW)

University of Regina students seeking readmission or transfer to the Faculty of Science after a first RTD or MW must write a letter of petition to the Associate Dean (Academic). Students registered through one of the federated colleges write to the Academic Dean of their College. The Associate Dean and Academic Deans will normally admit students whose average is above $50 \%$, but can deny the petitions of students whose average is $50 \%$ or below if they think that those students are not sufficiently prepared to continue. Students may appeal a denial to the Faculty's Student Appeals Committee (see §16.8).
The following conditions will be placed on readmission:

- Students must seek academic advising before registration until they have raised their average to $60 \%$;
- Students may take a maximum of 12 credit hours per semester until they have raised their average to 60\%;
- Students should repeat failed courses in order to quickly raise their averages. If students have failed courses that are required for their program they must repeat at least one of these courses each semester until they are cleared; and
- Students should complete core requirements as early as possible.


### 16.2.3.2 Following an Indefinite RTD or MW

All students seeking readmission or transfer after an indefinite RTD or MW must wait at least two years (six semesters) and then must petition to the Faculty for readmission.

### 16.3 Residency and Transfer Credit

A maximum of 60 hours of eligible transfer credit may be applied to a degree program and 30 hours of eligible transfer credit to a certificate program. Students must take at least 15 of the last 30 credit hours of their degree program at the University of Regina. As well, at least half the credit hours of required discipline courses for the major and/or minor must be completed at the University of Regina.
No transfer credit is accepted towards the University of Regina portion of joint Saskatchewan Polytechnic-University of Regina degree programs.

The Faculty of Science awards transfer credit for courses taken at other institutions only if the grade received was $60 \%$ or higher or equivalent.
The Faculty of Science does not accept ACAD 100, UNIV 100, UNIV 101 and/or UNIV 110, AMTH 001, 091, 002, 092 and/or 003, Science 101 and 105, or courses numbered 0xx for credit toward any degree or certificate in the Faculty.

### 16.4 Academic Advising and Registration

Through advising the Faculty can communicate to students the meaning of higher education and explain to them the various programs that are offered within the Faculty, with an indication of the opportunities that successful completion of these programs offers. The academic advisor will explain general academic requirements and assist the student in planning a program, within these requirements, that satisfies individual interests.
The requirements for the various degrees are set out in the following pages. Notwithstanding advice given in the departments, students who have questions as to whether their contemplated programs satisfy the requirements for the degrees they are pursuing should consult the Associate Dean (Academic), who will carefully check them.
Students register according to a priority system in which those who have earned the most credit hours register first. Students may register online, in person at the Faculty of Science Student Services Office, by fax or by email (see §16.1.1).

### 16.4.1 Course LoAd

The maximum course load in the Faculty of Science is 15 credit hours in each of Fall and Winter semesters and 12 credit hours in Spring/Summer session.
Students may not register for more than 15 credit hours in Fall or Winter semester, or more than 12 credit hours in Spring/Summer, unless they have a UGPA of at least $75 \%$ or a TGPA of at least $75 \%$ in the most recent semester. The approval of the Associate Dean (Academic) is required to register for an overload.
Students who have been accepted to Co-op programs who have a scheduled academic study semester in Spring/Summer may register for 15 credit hours with the permission of their departmental Co-op coordinator.

### 16.5 Evaluation of Academic Performance

In addition to the University Regulations in $\S 5.12$, the following Faculty regulations apply to all students registered in the Faculty of Science. See §5.9.3 for descriptions of the different types of GPA referred to in this section.

### 16.5.1 Dean's Honours List

To be named to the Dean's Honours List, students must attain an average of at least $85 \%$ in a given semester on a minimum of 15 credit hours (12 credit hours during Spring/Summer semester) of numerically graded courses.

### 16.5.2 Probation and Discontinuance

Students who fail more than $50 \%$ of their credit hours in a single semester receive a letter of academic advisement. The letter indicates the implications of continued failure and encourages students to seek academic advising. This regulation does not apply to students who register for three credit hours or fewer in the semester. The letter is not recorded on the official transcript.
In the review of students' performance, students who have failed a course and whose records contain failed courses totaling more than 30 credit hours are required to discontinue their studies in the Faculty for two semesters. NOTE: The 30 credit hour limit includes failed courses which are repeated and later passed. The failed courses which lead to a student's being required to discontinue for two semesters will be excluded from the calculation of failures in subsequent reviews of accumulated performance.

Students will be required to discontinue from their current program for failure to meet a program requirement or for a second failure in a mandatory course for the program. Students will be required to discontinue from the Faculty of Science for failure to meet a Faculty of Science requirement or for a second failure in a mandatory course.
Students who have previously been required to discontinue (RTD) under any faculty's regulations or forced to withdraw from the University (MW) or, including those of the Faculty of Science, and who are again required to discontinue under one of these regulations, will be required to discontinue indefinitely from the Faculty.
On the recommendation of the Faculty Committee on Admissions and Studies, the Faculty may also require students to discontinue indefinitely from the Faculty of Science for reasons of health or unsatisfactory academic or professional development. Students who have been Required to Discontinue (RTD) from the Faculty of Science are not permitted to register in any Science course without written permission of the Associate Dean (Academic) of the Faculty of Science. Science courses taken without permission of the Associate Dean (Academic) of the Faculty of Science, while on RTD from the Faculty of Science, at any institution or in any other Faculty at the University of Regina, will not be transferable for credit to a degree program in Science.
All rulings of probation or discontinuance may be appealed in writing to the Faculty; see §16.8.

### 16.6 Time Limits, Graduation Requirements and Conferral of Degrees

## See also §6 Graduation.

Except with permission from the Associate Dean (Academic) in consultation with the Head of Department (or designate), all degree requirements must be completed within 10 calendar years of the date of beginning the program.
A PGPA of $65 \%$ and major GPA of $65 \%$ are required for graduation with a Bachelor of Science, Bachelor of Medical Imaging, Bachelor of Medical Laboratory Science, Certificate in Computer Science, or Certificate in Indigenous Health Studies.
A PGPA of $80 \%$ is required for graduation with distinction (degrees only).
A PGPA of $85 \%$ is required for graduation with great distinction (degrees only).
A PGPA of $70 \%$ and major GPA of $75 \%$ are required for graduation with a BSc Honours degree.
A major GPA of $85 \%$ is required for graduation with High Honours.
The major GPA is calculated on courses in the discipline and required cognate courses.
In programs that allow a minor, a minor GPA of $65 \%$ is required. The minor GPA is calculated on the courses required for the minor.
Graduation averages are calculated only on University of Regina courses.
Successful completion of four work terms is required for graduation with a Co-op designation.
Successful completion of 12 months work on an internship is required for graduation with an internship designation (BSc in ACSC only).
Registration for a second degree in the Faculty of Science requires prior approval from the Associate Dean (Academic). Except under special conditions, approval will not normally be given for two degrees or double majors from Mathematics/Statistics/Actuarial Science. Approval will not be given for double majors in Chemistry and Biochemistry although two degrees may be received after appropriate academic advising, see §16.9.1.7.
Students in the Faculty of Science who fail to attain the required averages for graduation after completing the degree requirements may attempt up to 30 additional credit hours (either by repeating courses or taking additional courses) to attempt to raise their average. Students in this situation must consult the Associate Dean (Academic) or the Academic Program Advisor to determine the courses that may be repeated or additional courses that may be attempted.

Students follow the program that is in effect at the time of their most recent date of admission, transfer or readmission, but may choose to follow changes occurring after that date.
NOTE: As outlined in $\S 6.4$ and $\S 6.5$, applications for graduation may be submitted to the Faculty or Colleges at any time; however, the Faculty will meet only in September, January and May to approve degrees and to recommend graduands to Executive of Council. Students completing their requirements during the Spring/Summer session or wishing to receive their degrees in October must submit their applications for graduation by July 31. Students completing their requirements during the Fall semester or wishing to receive their degrees in February must submit their applications for graduation by November 30. Students completing their requirements during the Winter semester or wishing to receive their degrees in June must submit their applications for graduation by January 31. Students who plan to attend the Convocation ceremony should note the relevant information in §6.9.

### 16.6.1 Time Limits for Completing Discontinued Programs

When a degree program offered in Science is changed or terminated, students currently enrolled in the program may complete the program to which they were admitted or switch to the new program. The following conditions will be set for completion of old or superseded programs:

1. Students who choose to complete their program rather than switch to the new or revised program will have a maximum of 6 years to complete their program unless otherwise indicated at the time of the change.
2. Students who require readmission must enter the program that is current at the time of their readmission.
3. If a program is eliminated, the Faculty will make every attempt to accommodate affected students so they can complete a degree in an appropriate program.

### 16.7 Other Faculty Regulations

### 16.7.1 Course Sequencing

A 100-level course, with the exception of MATH 124, may not be repeated or taken for credit if credit has been received for a higher level course in the same discipline, nor may a course be repeated or taken for credit if it is a prerequisite for a course in the same discipline for which credit has previously been obtained.

### 16.7.2 Outdated Courses

Core courses in the major taken more than 10 years previously are subject to review. Students may be required to update their knowledge if, in the opinion of the Associate Dean (Academic) in consultation with the Head of the department, there have been significant changes in the field during the intervening period. Students may be required to repeat a course or courses or take another course in the designated area. In this case only, a repeated course may be counted for elective credit in the program.

### 16.8 Faculty Appeal Procedures

Students who have been required to discontinue (RTD) may appeal in writing to the Associate Dean (Academic) of the Faculty of Science. Appeals will be considered by the Faculty of Science Student Appeals Committee which has academic representation from each department in the faculty as well as from the three Federated Colleges, and is chaired by one of these academic members. The student is notified of the meeting and is invited to attend to speak to the appeal. The student is notified in writing of the decision of the Committee.

### 16.9 Academic Programs

### 16.9.1 Bachelor of Science (BSc)

### 16.9.1.1 Structure of the Program

To satisfy the requirements for a Bachelor of Science degree a student must complete a minimum of 120 credit hours ( 40 courses) distributed as follows:

- A minimum of 66 credit hours must be taken in the Faculty of Science. Of these:
- A minimum of 42 credit hours in a major discipline;
- For BSc and BSc Honours students who are majoring in Geography, Economics and Psychology, courses within the major requirements are considered to be within the Faculty of Science. Additional courses in these disciplines will continue to be treated as Arts electives (see below).
- A minimum of 18 credit hours in disciplines other than the major;
- $\quad$ The following courses must be included:
- 6 credit hours of natural science courses (must have a lab component). These courses are taught in the departments of Biology, Chemistry and Biochemistry, Geology and Physics.
- MATH 103 or MATH 110;
- CS 110.
- A minimum of 18 credit hours, including ENGL 100 and 110, must be taken in the Faculties of Arts and/or Media, Art, and Performance.
- Up to 36 credit hours of electives (as required to total 120 credit hours), which may include a maximum of 18 credit hours in courses from faculties other than Science, Arts, or Media, Art, and Performance.


### 16.9.1.2 Limit on 100-level Courses

A maximum of 60 credit hours may be in 100-level courses.

### 16.9.1.3 Selection of Majors

The requirements of each major offered by the Faculty of Science can be found under the relevant departmental listing.

### 16.9.1.4 Optional Minor

Students may complete a minor in a subject other than, and distinct from, their major. The minor is a concentration of at least six courses in a discipline from any of the Faculties of Science, Arts, Media, Art, and Performance, and Kinesiology and Health Studies. The specific courses required for a minor in a given discipline can be found under the relevant departmental listing. Up to two courses that are required for completion of a major may also be used in the minor. Consult with the Department Head or Associate Dean (Academic) to discuss options.
For students completing a minor in Kinesiology: where there are less than 18.0 credit hours of open electives within the program, one KIN course meeting a minor requirement may substitute for a 'Science, Arts, or Media, Art, and Performance" elective.

### 16.9.1.5 Double and Combined Majors

Students wishing to pursue a major in more than one discipline should discuss their program with the Associate Dean (Academic).
The Faculty of Science has a number of BSc programs with a combined major in two disciplines. In such a program the student is not required to complete as many courses in a single discipline as for the single or double major program. At present, combined programs have been approved in Computer Science and Mathematics, Biology and Biochemistry, Biology and Geography, Geology and Geography, Mathematics and Statistics, and Statistics and Economics. Details about the specific course requirements for these programs can be found in the departmental listings.

### 16.9.1.7 Second Degrees

Registration for a second degree in the Faculty of Science requires prior approval from the Associate Dean (Academic). Except under special conditions, approval will not normally be given for two degrees or two majors from Mathematics/Statistics/Actuarial Science.
For further information refer to $\S 6.2$ and $\S 16.3$.

### 16.9.2 Bachelor of Science Honours (BSc Honours)

The structure of the BSc Honours degree is the same as that of the BSc, except that a minimum of 54 credit hours must be in the major discipline, and a maximum of 24 credit hours of electives is permitted.

### 16.9.3 Bachelor of Medical Imaging (BMI) (Joint Program with Saskatchewan Polytechnic

For admission to the BMI program students must have completed the Diploma of Medical Radiologic Technology from Saskatchewan Polytechnic with a minimum GPA of $60 \%$ in addition to meeting the high school admission requirements. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.
For further information refer to §16.18.2.5

### 16.9.4 Bachelor of Medical Laboratory Science (BMLS)

For admission to the BMLS program, students must have completed the Diploma of Medical Laboratory Technology from Saskatchewan Polytechnic with a minimum GPA of $60 \%$ in addition to meeting the high school admission requirements for the Faculty of Science. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.
Refer to §2.4.2, §16.6 and §16.9.1 for additional important information.

| Credit hours | Required courses after admission to University of Regina: | Student's record of courses completed |
| :---: | :---: | :---: |
| Year 3, Fall Semester, University of Regina |  |  |
| 3.0 | ENGL 100 |  |
| 3.0 | PSYC 101 or PSYC 102 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | MATH 110 |  |
| 3.0 | CS 110 |  |
| Year 3, Winter Semester, University of Regina |  |  |
| 3.0 | ENGL 110 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BUS 205 |  |
| 3.0 | INHS 100 |  |
| 3.0 | STAT 160 |  |
| Year 4, Fall Semester, University of Regina |  |  |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOL 341 or STAT 201 or higher |  |
| 3.0 | BIOL 288 |  |
| 3.0 | Elective* |  |
| 3.0 | Elective* |  |
| Year 4, Winter Semester, University of Regina |  |  |
| 3.0 | BIOC 330 |  |
| 3.0 | BUS 260 |  |
| 3.0 | PHIL 273 or PHIL 276 |  |
| 3.0 | BIOC 221 |  |
| 3.0 | Elective* |  |
| 60.0 | University of Regina Subtotal | 65\% Program GPA required |
| * The required elective must be one of: BIOL 265, 302, 305, 390, 405; BIOC 330, 423; CHEM 210, 241, 312; INHS 101; PSYC 101, PSYC 102; STAT 251, 252; or PHIL 370AA. A number of these courses may require special permission. |  |  |

### 16.9.5 Other Joint Programs with Saskatchewan Polytechnic

The Faculty of Science offers three other joint BSc programs with Saskatchewan Polytechnic:

- A BSc program in Environmental Biology;
- A BSc Honours program in Environmental Biology
- A BSc program in Chemical Technology, given jointly with ;
- Post-Diploma Admission to the BSc Program in Computer Science is available to graduates of the approved two-year postsecondary diploma programs in Computer Systems Technology, and Computer Information Systems.
Details about the specific course requirements for these programs can be found in the Biology, Chemistry and Computer Science departmental listings.


### 16.9.6 Combined Degrees with the University of SASKATCHEWAN

The BSc and BSc Hons degrees may be combined with the DMD, DMV, BSP, or JD degrees from the University of Saskatchewan and may be obtained in a period of time shorter than would be required if the two programs were taken separately. This is possible because many of the courses taken in the professional colleges of dentistry, veterinary medicine, pharmacy and law at the University of Saskatchewan, may be treated as electives in the Faculty of Science at the University of Regina.
The following rules govern these combined degrees:

- Students must satisfy the requirements of the BSc degree including those of the particular "major" chosen.
- The Faculty waives the requirement that 15 of the final 30 credit hours needed for the BSc degree must be taken at the University of Regina.
- Of the 120 credit hours required for the BSc degree, a minimum of 75 hours must have been taken in the Faculties of Arts, Media, Art, and Performance, and Science at the University of Regina. A maximum of 45 hours of courses taken while the student was registered in a professional college may be used toward the BSc.
- The particular courses from professional colleges that may be counted toward the BSc shall be those courses agreed upon from time to time by the Faculty of Science. Students wishing to pursue one of these combined degrees should consult the Associate Dean (Academic) to ascertain the precise requirements and the courses taken in the professional college that may be used for credit in their particular programs.
- Students wishing to obtain such a combined degree must submit an Application for Graduation to the University of Regina in the normal manner when all the requirements for the degree at the University of Regina have been fulfilled.


### 16.9.7 Certificate in Indigenous Health Studies (CIHS)

The First Nations University of Canada, in partnership with the Faculty of Science offers the Indigenous Health Careers Program which is a pre-professional, preparatory program to prepare students for entry into professional health and allied health programs in other postsecondary institutions; and at the same time provide an indigenous cultural perspective, understanding of the health care system, and knowledge of health career options.

| Credit <br> hours | Certificate in Indigenous <br> Health Studies, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 OR CHEM 230 |  |
| 3.0 | CS 100 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Indigenous Language 100 <br> level |  |
| 3.0 | INHS 100 |  |
| 3.0 | INHS 101 |  |
| 3.0 | INHS 200 |  |
| 3.0 | INHS 210 |  |
| 3.0 | INDG 100 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | PHYS 109 |  |
| 3.0 | PHYS 119 |  |
| 3.0 | PSYC 101 or 102 |  |
| 3.0 | STAT 100 |  |
| 3.0 | Elective |  |
| 60.0 | Total 65\% Program GPA required |  |
| $\mathbf{1 6 . 1 0}$ CO-OPERATIVE |  |  |
| EDDUCATION |  |  |
| INTERNSHIP PROGRAMS |  |  |

The Faculty of Science offers programs in co-operative university education in Biology, Biochemistry, Chemistry, Computer Science, Geology, Mathematics, Physics, and Statistics. Students spend alternate four-month periods taking university courses and working in fully-salaried jobs, related to their discipline, with participating employers.
These Co-op programs use a full trimester year (three 4-month semesters) and thus allow completion of a 4-year degree and 12-20 months of practical experience in a total of five years, with the advantage of a job during the time the student is not taking courses. Once admitted to Co-op, students are either in school or at work.
The Faculty of Science also offers an internship program in Actuarial Science which requires at least one year of internship. The internship is a salaried position where one can obtain practical experience.
There are many benefits to being in the Co-op or Internship program such as improved motivation and performance, practical work experience that may aid the student in choosing future areas of interest, financial gain, and an excellent chance of full-time employment upon graduation.
Refer to §8.1.1, and to the departmental entries below, for details of these programs.

### 16.10.1 Co-operative Education Program in Biology

Entrance criteria - at the time of application for admission to the placement cycle, a student:

- must have completed at least 33 credit hours, but not more than 60 credit hours, towards a BSc degree in Biology;
- must include BIOL 100, BIOL 101, CHEM 104, one of CHEM 105 or CHEM 140, and at least two 200-level Biology courses in the courses they have taken;
- must be registered for at least two additional 200-level BIOL courses for the next academic term, with a total course load of at least 12 credit hours;
- must have achieved a minimum GPA of $70 \%$ overall and in courses required for the major
Four work terms must be completed to obtain the "Co-operative Education" designation with the normal sequencing as follows (where A1 stands for Academic term 1, H stands for free term, and W1 stands for Work term 1):

| Sept- | Jan- | May- | Sept- | Jan- | May- | Sept- |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Dec | Apr | Aug | Dec | Apr | Aug | Dec |
| A1 | A2 | H | A3 | A4 | W1 | A5 |
| Jan- | May- | Sept- | Jan- | May- | Sept- | Jan- |
| Apr | Aug | Dec | Apr | Aug | Dec | Apr |
| W2 | W3 | A6 | A7 | W4 | A8 |  |

For further details, contact Co-operative Education Office or visit its website: www.uregina.ca/coop, or contact the Head of the Department of Biology.

- To continue in the Co-op option, a student must maintain a GPA of at least $70 \%$ overall and in courses required for the major and must enrol in at least 12 credit hours in academic terms between work terms.


### 16.10.2 Co-operative Education Program in Chemistry and Biochemistry

Entrance criteria - at the time of application for admission to the placement cycle, a student:

- must have completed at least 21 credit hours toward a BSc degree, including CHEM 104 and one additional course in chemistry;
- must have completed no more than 60 credit hours toward the BSc;
- must have achieved a minimum GPA of $72.5 \%$ in courses required for the major and overall;
- must be enrolled in a program to complete at least 3 biochemistry/chemistry courses beyond CHEM 104, prior to commencement of the first work term.

Successful completion of three work terms is required for the Co-op designation, with a fourth work term being optional. Students follow a schedule of work/academic terms similar to that shown for Computer Science. To continue in the Co-op option, students must maintain a GPA of $72.5 \%$ and must enroll in at least 12 credit hours in academic terms between work terms. One of the first two work terms must be in a fall or winter semester (i.e. both may not be in summer semesters).
For further details, contact the Co-operative Education Office or the Head of the Department of Chemistry and Biochemistry.

### 16.10.3 Co-operative Education Programs in Computer Science and Software Systems Development

Website: www.cs.uregina.ca/Academic/workstudy.html

- Co-operative education (Co-op) is available with all Computer Science and Software Systems Development degree programs. Students participate in the Co-op Program under the direction of the Department's Co-op Coordinator. To receive the Co-op
designation upon graduation students must successfully complete 3 work terms, with fourth and fifth work terms being optional. It is strongly recommended that a student's final term be an academic one.
- Sequencing of the program will depend on the registration and academic credit of the student. Students are encouraged to meet with an academic advisor or the Co-op coordinator to discuss the appropriate alternating of 4 -month work and academic terms. Permission to complete 2 consecutive work terms will only be granted once to a student during their program. The remaining work term(s) must be preceded and followed by an academic term.


### 16.10.3.1 Entrance criteria

## Students must:

- have and maintain a GPA of $65 \%$;
- be enrolled in a minimum of 12 credit hours per semester;
- be registered in or have completed CS 115 or both CS 110 and CS 270 or CS 280;
- complete MATH 110; and
- complete a minimum of 30 credit hours.

For further details, contact the Co-operative Education Office or visit its website: www.uregina.ca/careercentre/coop, or contact the Department of Computer Science.

### 16.10.4 Co-operative Education Programs in Geology

The goal of the Co-op programme is to provide hands-on employment experience for students enrolled in the BSc Geology or BSc (Honours) Geology programs. The BSc or BSc (Hons) degrees with Co-op designation include 120 credit hours of courses and three work terms (each of four months duration, with the option to pursue a fourth work term at the student's request). The Co-op work terms may occur at private businesses, research institutions, government laboratories or universities, and may or may not include a fieldwork component. Each work term is graded on a pass/fail basis. Students must obtain a passing grade for each work term, in order for this to count towards the Co-op designation.

### 16.10.4.1 Admission criteria:

- At time of application, students must have completed at least 33 credit hours but not more than 65 credit hours, including their current semester of study, towards a BSc or BSc (Hons.) degree in Geology. Further, students must have completed GEOL 201, GEOL 210, and GEOL 241 to be qualified for the Co-op program.
- Students must achieve a GPA of at least 70\% overall and in all courses required for the major.
- $\quad$ Student must be full-time in the semester prior to starting a work-term.


### 16.10.4.2 To continue in the Co-op programme, students

 must:- Maintain a GPA of at least $70 \%$ overall and in courses required for the major.
- Enroll in at least 12 credit hours in each academic semester between work terms.


### 16.10.4.3 Time to completion of a BSc/BSc (Hons.) degree in Geology with Co-op

Depending on the timing of the work terms (Spring / Summer, Fall, Winter) the Co-op program will take one or two semesters longer than a typical BSc or BSc (Hons.) program, assuming that students register in the maximum allowable credit hours of courses during all academic semesters (including the Spring/Summer).

### 16.10.4.4 Course requirements and planning your degree

It is unusual, if not impossible, to be able to complete all work terms during Spring/Summer semesters exclusively. Therefore, it is very important that students plan carefully. Students must be prepared to
take courses during at least one Spring/Summer semester. A maximum of two summer work terms is permitted.

### 16.10.4.5 Work Terms

Work terms are arranged with assistance from the University of Regina Career Centre (http://www.uregina.ca/coop/). Jobs are posted, students apply for job postings, and there is a system of interviews and "matching" between employers and students. The Career Centre also offers workshops for students on topics including resume writing, interview preparation, and job searching tools and techniques. With permission, double work terms (of eight months duration) may be arranged. Students will typically take 3 work terms, with an option to take a fourth with the permission of the Geology Department's Co-op coordinator.

NOTE: A maximum of one course (3 credit hours) may be taken during a work term.
Students must register and pay the Co-op fee for each work term. The co-op program must end with an academic semester and cannot end on a work term.

### 16.10.4.6 Work term report

All students must submit a work term report within two weeks of completing a work term.
Reports will be graded according to the following scale: Excellent, Good, Satisfactory, Poor, Unacceptable or Fail. Reports graded Poor or Unacceptable will be returned to the student and must be revised and re-submitted within three weeks. The revised report must receive a grade of Satisfactory or better for the work term to receive a grade of Pass. Reports with a grade of Fail will not be re-written, and students will not receive a Pass for the associated work term.

### 16.10.5 Co-operative Education Programs in Mathematics and Statistics

The Department of Mathematics and Statistics operates two 4-year degree programs in Co-operative university education. Each requires students to complete three work terms to earn the Co-op designation. A fourth work term is optional with the mutual agreement of the student, the Faculty, the Co-op Office, and an employer.

### 16.10.5.1 Entrance Criteria - Co-op Mathematics Program

 Students must:- have and maintain a GPA of $65 \%$;
- be enrolled in 12 credit hours to be a full-time Co-op student;
- complete three full semesters of study including successful completion of MATH 110, 111, 122, 213, 217, CS 110, and STAT 160 , before engaging in their first work term.


### 16.10.5.2 Entrance Criteria - Co-op Statistics Program

Students must:

- have and maintain a GPA of $65 \%$;
- be enrolled in 12 credit hours to be a full-time Co-op student;
- complete three full semesters of study including successful completion of MATH 110, 111, 122, STAT 160, STAT 251, and CS 110 before engaging in their first work term.
For further details contact the Co-operative Education Office or the Head of the Mathematics and Statistics Department.


### 16.10.6 Co-operative Education Program in Physics

Website:
www.uregina.ca/science/physics/programs/co-op/index.html
Students must meet the criteria for admission to Co-op as approved by the Faculty of Science (see §8.1.1). Students must have a CGPA of $70 \%$ to be admitted to, and must maintain a CGPA of $70 \%$ to continue in Physics Co-op Programs. At the time of graduation, a student who has not met the $70 \%$ requirement, but who has a minimum CGPA of $65 \%$ and a PGPA of $65 \%$, will be awarded a BSC in Physics without the Co-op designation.

The Co-operative Education Program in Physics offers students a choice of four or five work terms. Sequencing is the same as in the Co-operative Education Program in Computer Science.
For further details, contact the Co-operative Education Office or the Physics Co-op Coordinator.

### 16.10.7 Internship Program in Actuarial Science

The Department of Mathematics and Statistics offers to students in the Actuarial Science program the possibility of participating in an internship year between years three and four of their academic study. The internship is 12 to 16 months in duration, with each four month employment period worth one academic credit towards the degree. For further information, contact the Department of Mathematics and Statistics.

### 16.10.7.1 Entrance criteria

Students must have an overall average of at least 75\%.
Students must plan to complete an actuarial exam before or during the internship placement.
At the time of application to the internship program, students must be enrolled full-time in the Actuarial Science program, and be enrolled in, or have completed ACSC 317.
At the time of placement into an internship position, students must have completed ACSC 317 and ACSC 318.
Before going out on the internship, students must have completed 72 credit hours towards the Actuarial Science degree.

### 16.11 Department of Biology

## LB 244

University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4145; fax: 306-337-2410
Website: www.uregina.ca/science/biology

### 16.11.1 Academic Programs

The Department offers the following programs, described below:
Biology majors and honours students should seek advising from the Department of Biology.

### 16.11.1.1 BSc in Biology

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc with Biology major, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 200-, 300-level or <br> BIOC 220 |  |
| 3.0 | BIOL 288 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | BIOL 300-, 400-level or <br> BIOC 221 or above |  |
| 3.0 | BIOL 300-, 400-level or <br> BIOC 221 or above |  |
| 3.0 | BIOL 300-, 400-level or <br> STAT 342 |  |
| 3.0 | BIOL 402 |  |


| Credit <br> hours | BSc with Biology major, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 300- or 400-level |  |
| 3.0 | BIOL 300- or 400-level |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 and 112, or |  |
| 3.0 | MATH 110 and 111 |  |

### 16.11.1.2 BSc Honours in Biology

Refer to §16.6 and §16.9.2 for additional important information.

| Credit <br> hours | BSc Honours in Biology, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 200-, 300-level or <br> BIOC 220 |  |
| 3.0 | BIOL 288 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | BIOL 498 |  |


| Credit <br> hours | BSc Honours in Biology, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 499 |  |
| 3.0 | BIOL 300-, 400-level or <br> BIOC 221 or above |  |
| 3.0 | BIOL 300-, 400-level or <br> BIOC 221 or above |  |
| 3.0 | BIOL 300-, 400-level or <br> STAT 342 |  |
| 3.0 | BIOL 402 |  |
| 3.0 | BIOL 300- or 400-level |  |
| 3.0 | BIOL 300- or 400-level |  |
| 3.0 | BIOL 300- or 400-level |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 and 112, or <br> MATH 110 and 111 |  |
| 3.0 | PHYS 109 and 119, or <br> PHYS 111 and 112 |  |
| 3.0 | STAT 100 |  |
| 3.0 | STAT 200 |  |
| 3.0 | Subtotal: Major <br> Requirements | T5\% Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 84.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Total |  |
| $\mathbf{1 2 0 . 0}$ | required |  |

### 16.11.1.3 BSc in Indigenous Environmental Science

The Bachelor of Science in Indigenous Environmental Science program is designed to provide students with holistic Indigenous perspectives and cultures. This degree will provide students with tools to work in the multifaceted disciplines in mining, land development, natural resource exploration, and health impact. To take advantage of these opportunities, students will enroll in a variety of courses in Sciences, focusing on environmental and ecological topics with an Indigenous worldview. Students will also acquire important knowledge in environmental economics and community development.

| Credit <br> hours | BSc in Indigenous <br> Environmental Science | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| Section A: Basic and Breadth Courses |  |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CS 110 |  |


| 3.0 | ENGL 100 |  |
| :---: | :---: | :---: |
| 3.0 | ENGL 110 |  |
| 3.0 | ENVS 100 |  |
| 3.0 | GEOG 120 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | GEOL 102 |  |
| 3.0 | MATH 102 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | PHYS 109 and 119, or |  |
| 3.0 | PHYS 111 and 112 |  |
| 3.0 | STAT 100 or STAT 160 |  |
| 51.0 | Subtotal |  |
| Section B: Environmental Courses |  |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 276 |  |
| 3.0 | ENHS 340 |  |
| 3.0 | ENHS 350 |  |
| 3.0 | ENHS 440 |  |
| 3.0 | GEOL 270 |  |
| 3.0 | ENST 200 |  |
| 3.0 | GEOG 326 |  |
| 3.0 | GEOL 329 |  |
| 27.0 | Subtotal |  |
| Section C: Indigenous Courses |  |  |
| 3.0 | INDG 100 |  |
| 3.0 | INDG 236 |  |
| 3.0 | INDG 360 or ADMN 225 |  |
| 3.0 | 1 course from: INDG 222AD, INDG 234, INDG 440/ADMN 436AM |  |
| 3.0 | Indigenous Language 100 level |  |
| 15.0 | Subtotal |  |
| Section D: Economics and Law Courses |  |  |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 273 |  |
| 3.0 | ECON 372 |  |
| 3.0 | ENVS 200 |  |
| 12.0 | Subtotal |  |
| Section E: Approved Electives |  |  |
| 3.0 | *Approved Science Elective |  |
| 3.0 | *Approved Science Elective |  |
| 3.0 | *Approved Science Elective |  |
| 3.0 | *Approved Science Elective |  |
| 3.0 | *Approved Elective |  |
| 15.0 | Subtotal |  |
| 120.0 | Total | $\begin{aligned} & \text { (65\% Program GPA } \\ & \text { Required) } \\ & \hline \end{aligned}$ |
| *Approved Electives <br> Science Electives (Minimum 4) <br> BIOC 200, BIOL 205, 223, 266, 288, 302, 316, 335, 356, 365, 366, <br> 367, 378, 456, 457, 463, CHEM 210, GEOL 201, 210, 211, 240, <br> 241, 307, 313, 314, 315, 353 <br> Additional Electives <br> ADMN 260, 320, ENHS 310, 311, 320, 321, GEOG 203, 207, 210, <br> 222, 232, 246, 303, 307, 309, 327 PHIL 275, SOC 230, WGST 201 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

### 16.11.1.4 BSc in Biology, Cellular \& Molecular Biology Area of Concentration

Refer to $\S 16.6$ and $\S 16.9 .1$ for additional important information.

| Credit hours | BSc with Biology major, Cellular \& Molecular Biology area of concentration required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 288 |  |
| 3.0 | BIOL 305 |  |
| 3.0 | BIOL 402 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | Four courses from: BIOL 302, 303,310, 366, 390, 395, 401, 405, 406, 407, 410, up to two of BIOC 221, 3xx or 4xx |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 and 112 or MATH 110 and 111 |  |
| 3.0 |  |  |
| 3.0 | PHYS 109 and 119, or PHYS 111 and 112 |  |
| 3.0 |  |  |
| 3.0 | STAT 100 |  |
| 3.0 | STAT 200 |  |
| 75.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 65\% Program GPA required |

### 16.11.1.5 BSc Honours in Biology, Cellular \& Molecular Biology Area of Concentration

Refer to §16.6 and §16.9.2 for additional important information.

| Credit hours | BSc Honours with Biology major, Cellular \& Molecular Biology area of concentration required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 288 |  |
| 3.0 | BIOL 305 |  |
| 3.0 | BIOL 402 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | BIOL 498 |  |
| 3.0 | BIOL 499 |  |
| 3.0 | Five courses from BIOL 302, 303, 310, 366, 390, 395, 401, 405, 406, 407, 410, up to two of BIOC 221, 300- or 400-level |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 and 112 or MATH 110 and 111 |  |
| 3.0 |  |  |
| 3.0 | PHYS 109 and 119 or PHYS 111 and 112 |  |
| 3.0 |  |  |
| 3.0 | STAT 100 |  |
| 3.0 | STAT 200 |  |
| 84.0 | Subtotal: Major Requirements | 75\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 70\% Program GPA required |

[^0]Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc with Biology major, <br> Ecology \& Environmental <br> Biology area of <br> concentration required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 276 |  |
| 3.0 | BIOL 288 |  |
| 3.0 | BIOL 402 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | Five courses from: BIOL <br> 302, 316, 335, 341 (or STAT |  |
| 3.0 | 342), 356, 365, 366, 367, |  |
| 3.0 | $375,376,380,385,401$, |  |
|  | 402, 425, 435, 456, 457, |  |
| 3.0 | 463, 485 |  |

16.11.1.7 BSc Honours in Biology, Ecology \& Environmental Biology Area of Concentration

Refer to §16.6 and §16.9.2 for additional important information.

| Credit <br> hours | BSc Honours in Biology, <br> Ecology \& Environmental <br> Biology required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 276 |  |
| 3.0 | BIOL 288 |  |
| 3.0 | BIOL 402 |  |
| 0.0 | BIOL 488 (semester 1) |  |
| 0.0 | BIOL 488 (semester 2) |  |
| 3.0 | BIOL 498 |  |
| 3.0 | BIOL 499 |  |
| 3.0 |  |  |
| 3.0 | Six courses from: BIOL 302, |  |
|  | $316,335,341$ (or STAT |  |

16.11.1.8 BSc Combined Major in Biology and Geography

Refer to §16.6 and §16.9.1 for additional important information.

| Credit hours | BSc Combined Major in Biology and Geography, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 378 |  |
| 3.0 | BIOL 266 |  |
| 3.0 | BIOL 275 |  |
| 3.0 | BIOL 288 |  |
| 3.0 | Threecourses from: <br> BIOL316, 335, 341 (or STAT <br> 342), 356, 365, 367, , 375, <br> 385, 425, 435, 456, 457, <br> 463 , |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | BIOL 402 |  |
| 3.0 | GEOG 120 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | GEOG 205 |  |
| 3.0 | GEOG 207 |  |
| 3.0 | GEOG 210 |  |
| 3.0 | ENST 200 |  |
| 3.0 | GEOG 301 |  |
| 3.0 | GEOG 305 |  |
| 3.0 | GEOG 300- or 400-level |  |
| 3.0 | GEOG 300- or 400-level |  |
| 3.0 | GEOG 300- or 400-level |  |
| 3.0 | GEOG 300- or 400-level |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | GEOL 102 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | MATH 111 or 112 |  |
| 3.0 | PHYS 109 and 119 or PHYS 111 and 112 |  |
| 3.0 |  |  |
| 3.0 | STAT 100 or 160 |  |
| 99.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 65\% Program GPA required |

16.11.1.9 BSc in Environmental Biology (Joint Program with Saskatchewan Polytechnic \& Lethbridge College)
This is a joint program with Saskatchewan Polytechnic and Lethbridge College. To complete the BSC in Environmental Biology, students must have completed the Diploma of Integrated Resource Management from Saskatchewan Polytechnic or the Diploma in Renewable Resource Management from Lethbridge College with a minimum 60\% graduating average and a passing grade in PreCalculus 30 or equivalent. Graduation from a similar program may be used for admission to this program and will be reviewed on a case by
case basis. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.

Refer to $\S 16.6$ and $\S 16.9 .1$ for additional important information.

| Credit <br> hours | Environmental Biology <br> major (University of <br> Regina), required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 0.0 | BIOL 488 (first semester) |  |
| 0.0 | BIOL 488 (second <br> semester) |  |
| 3.0 | Three courses from: <br> BIOL 316, 335, 341 (or <br> STAT 342), 35, 365, <br> 367, 380, 385, 402, 435, <br> 456, 457, 463, 485 |  |
|  | CHEM 104 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | ENST 200 |  |
| 3.0 | GEOG 325, 326 or 327 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | STAT 200 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Subtotal | $\mathbf{6 5 \%}$ U of R GPA |
| required |  |  |

### 16.11.1.10 BSc Honours in Environmental Biology (Joint Program with Saskatchewan Polytechnic \& Lethbridge College)

This is a joint program with Saskatchewan Polytechnic and Lethbridge College. To complete the BSc in Environmental Biology, students must have completed the Diploma of Integrated Resource Management from Saskatchewan Polytechnic, or the Diploma in Renewable Resource Management from Lethbridge College with a minimum 60\% graduating average and a passing grade in PreCalculus 30 or equivalent. Graduation from a similar program may be used for admission to this program and will be reviewed on a case by case basis. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.
Refer to §16.6, §16.9.2, and §16.11.1.10 for additional important information.

| Credit <br> hours | Environmental Biology <br> major (University of <br> Regina), required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 0.0 | BIOL 488 (first semester) |  |


| 0.0 | BIOL 488 (second semester) |  |
| :---: | :---: | :---: |
| 3.0 | BIOL 498 |  |
| 3.0 | BIOL 499 |  |
| 3.0 | Fivecourses from: |  |
| 3.0 | BIOL 316_335, 341 (or STAT |  |
| 3.0 | 385, 402, 435, 456, 457, |  |
| 3.0 | 463, 485 |  |
| 3.0 |  |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | ENST 200 |  |
| 3.0 | GEOG 325, 326 or 327 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | STAT 200 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 72.0 | Subtotal | $70 \%$ U of R GPA required |
| 132.0 | Total |  |

### 16.11.1.11 BSc in Environmental Biology (Joint Program with Lakeland College)

This is a joint program with Lakeland College. To complete the BSc in Environmental Biology, students must have completed the Diploma in Wildlife and Fisheries Conservation, or the Diploma in Conservation and Restoration Ecology at Lakeland College with a minimum 60\% graduating average and a passing grade in Pre-Calculus 30 or equivalent. Graduation from a similar program may be used for admission to this program and will be reviewed on a case by case basis. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.

| Credit <br> hours | Environmental Biology <br> major (University of <br> Regina), required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400- <br> level |  |
| 3.0 | One of: BIOL 378, 266 |  |
| 0.0 | BIOL 488 (first semester) |  |
| 0.0 | BIOL 488 (second <br> semester) |  |
| 3.0 | Three courses from: <br> BIOL 316, 335, 341 (or <br> STAT 342), 356, 365, <br> 367, 380, 385, 402, 435, |  |
| $456,457,463,485$ |  |  |


| 3.0 | MATH 103 or 110 |  |
| :--- | :--- | :--- |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | STAT 200 |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| $\mathbf{6 0 . 0}$ | Subtotal | 65\% U of R GPA <br> required |
| $\mathbf{1 2 0 . 0}$ | Total |  |

### 16.11.1.12 BSc Honours in Environmental Biology (Joint Program with Lakeland College)

This is a joint program with Lakeland College. To complete the BSc in Environmental Biology, students must have completed the Diploma in Wildlife and Fisheries Conservation, or the Diploma in Conservation and Restoration Ecology at Lakeland College with a minimum $60 \%$ graduating average and a passing grade in Pre-Calculus 30 or equivalent. Graduation from a similar program may be used for admission to this program and will be reviewed on a case by case basis. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.
Refer to §16.6, §16.9.2, and §16.11.1.10 for additional important information.

| Credit <br> hours | Environmental Biology <br> major (University of <br> Regina), required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | One of: BIOL 378, 266 |  |
| 0.0 | BIOL 488 (first semester) |  |
| 0.0 | BIOL 488 (second semester) |  |
| 3.0 | BIOL 498 |  |
| 3.0 | BIOL 499 |  |
| 3.0 | Five courses from: <br> BILL 316, 335, 341 (or <br> STAT 342), 356, 365, 367, <br> 380, 385, 402, 435, 456, <br>  <br>  <br>  <br>  <br> $357, ~ 463, ~ 485$ |  |
| 3.0 | GEOG 121 |  |
| 3.0 | ENST 200 |  |
| 3.0 | GEOG 325, 326 or 327 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | STAT 200 |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Subtotal | $\mathbf{7 0 \%}$ U of R GPA |
| required |  |  |

### 16.11.1.13 Minor in Biology

| Credit <br> hours | Biology minor - <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| 3.0 | BIOL 200-, 300- or 400-level |  |
| $\mathbf{1 8 . 0}$ | Subtotal | 65\% Minor GPA <br> required |

### 16.11.1.14 Environmental Health and Science Program (First Nations University of Canada)

The Department of Science, First Nations University of Canada in partnership with the University of Regina, Faculty of Science offers a four-year program leading to a Bachelor of Science (BSc) in Environmental Health and Science. For further information contact:

## Director

Environmental Health and Sciences Program
First Nations University of Canada
1 First Nations Way
Regina, SK S4S 7K2
Tel: 306-790-5950 ext 3325

## General Information

The First Nations University of Canada Environmental Health and Science program emphasizes First Nations traditions and culture while providing students with the opportunity to acquire the necessary leadership skills and knowledge needed to address the problems in the areas of environmental health and science.
The program's development and delivery are based on the following principles:

- professional development occurs through practical hands-on experience;
- a teaching and learning model which fosters creativity within students;
- acceptance, promotion, and incorporation of First Nations philosophies;
- traditional knowledge, beliefs, and viewpoints;
- community development;and
- marketable skills and a foundation for lifelong learning which enhance personal relevance as well as self-worth.
The program's objectives are to:
- assist in meeting the educational and employment needs of First Nations communities;
- provide a core of humanities, Indigenous Health Studies, physical and social sciences courses;
- allow students to develop various skills and abilities including analytical and problem solving skills, administrative skills, policy formulation skills, and leadership, administrative, and public relations abilities.


## Accreditation

The Environmental Health and Science program of the First Nations University of Canada is accredited through the Canadian Institute of Public Health Inspectors (CIPHI). This accreditation ensures that the graduates, who have satisfactorily completed a CIPHI approved practicum, will meet the criteria for eligibility to sit the Examination to obtain the Certificate in Public Health Inspection (Canada). This certificate of qualification is intended to satisfy the requirements of the provinces, municipalities, federal government, and other employers of qualified Public Health Inspectors.

## Curriculum

The Environmental Health and Science Program is a 120-credit-hour program leading to a Bachelor of Science in Environmental Health and Science. Students who lack the prerequisites for first-year courses should consult the First Nations University of Canada about how to acquire these.

| Credit <br> hours | BSc in Environmental Health <br> and Science, required courses | Student's <br> record of <br> courses <br> completed |
| :--- | :--- | :--- |
|  | Semester 1 |  |
| 3.0 | BIOL 100 |  |
| 3.0 | PHIL 150 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | INHS 100 |  |
| 3.0 | ENHS 110 |  |
|  | Semester 2 |  |


| Credit hours | BSc in Environmental Health and Science, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CHEM 104 |  |
| 3.0 | INHS 101 |  |
| 3.0 | STAT 100 |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | BIOL 101 |  |
|  | Semester 3 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | BIOL 223 |  |
| 3.0 | KIN 260 |  |
| 3.0 | ENHS 250 |  |
| 3.0 | CS 110 |  |
|  | Semester 4 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | PHYS 109 |  |
| 3.0 | INHS 210 |  |
| 3.0 | ENHS 101 |  |
| 3.0 | Elective from Arts or Media, Art, and Performance; or Indigenous Fine Arts \#1 |  |
|  | Semester 5 |  |
| 3.0 | ENHS 310 |  |
| 3.0 | ENHS 340 |  |
| 3.0 | ENHS 350 |  |
| 3.0 | ENHS 422 |  |
| 3.0 | elective from Arts, Media, Art, and Performance; or Indigenous Fine Arts \#2 |  |
|  | Semester 6 |  |
| 3.0 | ENHS 311 |  |
| 3.0 | ENHS 360 |  |
| 3.0 | ENHS 400 |  |
| 3.0 | ENHS 401 |  |
| 3.0 | Elective from Arts, Media, Art, and Performance; or Indigenous Fine Arts \#3 |  |
|  | Semester 7 |  |
| 3.0 | ENHS 420 |  |
| 3.0 | ENHS 430 |  |
| 3.0 | ENHS 468 |  |
| 3.0 | Open Elective \#1 |  |
| 3.0 | Open Elective \#2 |  |
|  | Semester 8 |  |
| 3.0 | ENHS 320 |  |
| 3.0 | ENHS 380 |  |
| 3.0 | ENHS 470 |  |
| 3.0 | ENHS 440 |  |
| 3.0 | Open Elective \#3 |  |
|  | Semester 9 |  |
| 9.0 | ENHS 490 |  |
| 120.0 | Total |  |

### 16.11.1.15 Bachelor of Science in Environmental Health and Science After Degree

The First Nations University of Canada and the Faculty of Science, Biology Department offer the Environmental Health and Science After Degree. It is a 69 -credit-hour program leading to a Bachelor of Science. Students who already possess a science degree, have the opportunity to pursue an accelerated path of environmental public health study within 2 years. Completion of this program which includes a 12 -week practicum, meets the requirements to be eligible to certify with the Canadian Institute of Public Health Inspectors.

The First Nations University of Canada and the Faculty of Science, Biology Department offer the Environmental Health and Science After Degree. It is a 69 -credit-hour program leading to a Bachelor of Science. Students who already possess a science degree, have the opportunity to pursue an accelerated path of environmental public health study within 2 years. Completion of this program which includes a 12 -week practicum, meets the requirements to be eligible to certify with the Canadian Institute of Public Health Inspectors.

| Credit <br> Hours | BSc in Environment Health and Science <br> After Degree required courses | Student's <br> record of <br> courses <br> completed |
| :--- | :--- | :--- |
|  | Semester 1 |  |
| 3.0 | ENHS 310 |  |
| 3.0 | ENHS 340 |  |
| 3.0 | ENHS 350 |  |
| $\mathbf{3 . 0}$ | ENHS 422 |  |
| 3.0 | ENHS 110 or ENHS 250 |  |
|  | Semester 2 |  |
| 3.0 | ENHS 311 |  |
| 3.0 | ENHS 360 |  |
| 3.0 | ENHS 400 (ENEV 321) |  |
| 3.0 | ENHS 401 |  |
| 3.0 | ENHS 101 |  |
|  | Semester 3 |  |
| 3.0 | ENHS 420 |  |
| 3.0 | ENHS 430 |  |
| 3.0 | ENHS 468 |  |
| 3.0 | ENHS 250 or ENHS 110 |  |
| 3.0 | INHS 100 |  |
|  | Semester 4 |  |
| 3.0 | ENHS 320 |  |
| 3.0 | ENHS 380 |  |
| 3.0 | ENHS 470 |  |
| 3.0 | ENHS 440 |  |
| 3.0 | INHS 101 |  |
|  | Semester 5 |  |
| 9.0 | ENHS 490 |  |
| 69.0 | Total |  |

### 16.12 Department of Chemistry and BIOCHEMISTRY

LB 244
University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4146; fax: 306-337-2409
Website: www.uregina.ca/science/chem-biochem

### 16.12.1 Academic Programs

The Department offers the following programs, described below:
See also:

- $\quad \$ 12.11$ - BEd Secondary/BSc in Chemistry, offered jointly with the Faculty of Education
- $\quad$ 16.11.1.3 - BSc combined major in Biology \& Biochemistry, offered jointly with the Department of Biology.
16.12.1.1 BSc in Biochemistry

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc with Biochemistry <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOC 221 |  |
| 3.0 | BIOC 321 |  |
| 3.0 | BIOC 300-level |  |
| 3.0 | BIOC 300- or 400-level |  |


| Credit <br> hours | BSc with Biochemistry <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOC 300- or 400-level |  |
| 3.0 | BIOC 400-level |  |
| 3.0 | BIOC 400-level |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |
| 3.0 | BIOL 310 |  |
| 3.0 | BIOL 378 or 266 |  |
| 3.0 | BIOL 305 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | CHEM 215 or 250 |  |
| 3.0 | CHEM 241 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | STAT 160 |  |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | CS 110 or 115 |  |
| 78.0 | Subtotal: Major <br> Requirements |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| $\mathbf{1 2 0 . 0}$ | Total |  |
| required |  |  |

16.12.1.2 BSc Honours in Biochemistry

Refer to $\S 16.6$ and $\S 16.9 .2$ for additional important information.

| Credit <br> hours | Honours BSc Biochemistry <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOC 221 |  |
| 3.0 | BIOC 321 |  |
| 3.0 | BIOC 300-level |  |
| 3.0 | BIOC 300- or 400-level |  |
| 3.0 | BIOC 300- or 400-level |  |
| 3.0 | BIOC 401 |  |
| 3.0 | BIOC 402 |  |
| 3.0 | BIOC 400-level |  |
| 3.0 | BIOC 400-level |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | BIOL 205 |  |


| 3.0 | BIOL 310 |  |
| :---: | :---: | :---: |
| 3.0 | BIOL 378 or 266 |  |
| 3.0 | BIOL 305 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | CHEM 215 or 250 |  |
| 3.0 | CHEM 241 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | STAT 160 |  |
| 3.0 | PHYS 109 or 111 |  |
| 3.0 | CS 110 or 115 |  |
| 84.0 | Subtotal: Major Requirements | $\begin{aligned} & \text { 75\% Major GPA } \\ & \text { required } \end{aligned}$ |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 70\% Program GPA required |

16.12.1.3 BSc in Chemistry

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Chemistry major, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOC 220 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | CHEM 215 |  |
| 3.0 | CHEM 230 |  |
| 3.0 | CHEM 241 |  |
| 3.0 | CHEM 250 |  |
| 3.0 | CHEM 251 |  |
| 3.0 | CHEM 312 |  |
| 3.0 | CHEM 330 |  |
| 3.0 | CHEM 340 |  |
| 3.0 | CHEM 360 |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | Phys 109 and 119 or |  |


| 3.0 | Phys 111 and 112 |  |
| :--- | :--- | :--- |
| 3.0 | CS 110 or 115 |  |
| 72.0 | Subtotal: Major <br> Requirements | $\mathbf{6 5 \%}$ Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| $\mathbf{1 2 0 . 0}$ | Total | $\mathbf{6 5 \%}$ Program GPA |
| required |  |  |$|$|  |
| :--- |

16.12.1.4 BSc Honours in Chemistry

Refer to §16.6 and §16.9.2 for additional important information.

| Credit <br> hours | Honours BSc Chemistry <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOC 220 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | CHEM 215 |  |
| 3.0 | CHEM 230 |  |
| 3.0 | CHEM 241 |  |
| 3.0 | CHEM 250 |  |
| 3.0 | CHEM 251 |  |
| 3.0 | CHEM 312 |  |
| 3.0 | CHEM 330 |  |
| 3.0 | CHEM 340 |  |
| 3.0 | CHEM 360 |  |
| 3.0 | CHEM 401 |  |
| 3.0 | CHEM 402 |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | PHYS 109 and 119 or |  |
| 3.0 | PHYS 111 and 112 |  |
| 3.0 | CS 110 or 115 |  |
| 81.0 | Subtotal: Major <br> Requirements |  |
| 3.0 | ENGL 100 |  |


| Credit <br> hours | Honours BSc Chemistry <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $\mathbf{7 0 \%}$ Program GPA |
| 120.0 | Total | required |

### 16.12.1.5 BSc in Chemical Technology (Joint Program with Saskatchewan Polytechnic)

For admission to this program students must have completed the Diploma in Chemical Technology from Saskatchewan Polytechnic with a minimum GPA of $60 \%$.
Refer to §2.4.2, §16.6 and §16.9.1 for additional important information. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.

| Credit hours | Chemical Technology major (University of Regina), required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CHEM 230 |  |
| 3.0 | CHEM 250 |  |
| 3.0 | CHEM 251 |  |
| 3.0 | CHEM 300-level or BIOC $220$ |  |
| 3.0 | CHEM 300-level |  |
| 3.0 | CHEM 300-level |  |
| 3.0 | CHEM 300-level |  |
| 3.0 | CHEM 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | PHYS 109 |  |
| 3.0 | CS 110 |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance Elective |  |


| Credit <br> hours | Chemical Technology <br> major (University of <br> Regina), required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 60.0 | University of Regina <br> Subtotal | $65 \%$ GPA required |
| 120.0 | Total |  |

16.12.1.6 Minor in Biochemistry

| Credit <br> hours | Biochemistry minor <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | BIOC 220 |  |
| 3.0 | BIOC 221 |  |
| 3.0 | BIOC 321 |  |
| 3.0 | BIOC or BIOL, at any <br> level | $\mathbf{6 5 \%}$ Minor GPA <br> required |
| $\mathbf{2 4 . 0}$ | Subtotal |  |

### 16.12.1.7 Minor in Chemistry

| Credit <br> hours | Chemistry minor <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | CHEM 210 |  |
| 3.0 | CHEM 230 |  |
| 3.0 | CHEM 250 |  |
| 3.0 | CHEM 200-level |  |
| 3.0 | CHEM 300-level |  |
| $\mathbf{2 4 . 0}$ | Subtotal | $\mathbf{6 5 \%}$ Minor GPA <br> required |

### 16.13 Department of Computer Science

## CW 307.14

University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4632; Fax: 306-585-4745
Website: www.cs.uregina.ca
Faculty and Staff: www.cs.uregina.ca/People/

### 16.13.1 Academic Programs

The Department offers the following programs, described below:

### 16.13.1.1 Certificate in Computer Science (CCSc)

This is a two-year program ( 60 credit hours) of training and/or continuing education and is not meant to be a replacement for a Saskatchewan Polytechnic diploma. It is designed for professionals seeking upgrading in areas related to computer science. Courses required within the program are offered at times convenient to offcampus students, as well as in the traditional day slots.

| Credit <br> hours | Certificate in Computer <br> Science, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 215 |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |

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| Credit hours | Certificate in Computer Science, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |
| 3.0 | ENGL 100 |  |
| 30.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | 10 electives. Courses in mathematics and statistics, economics, and administration are recommended |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 60.0 | Total | 65\% Program GPA required |

16.13.1.2 BSc in Computer Science

Refer to §16.6 and §16.9.1 for additional important information.

| Credit hours | BSc with major in Computer Science, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 280 |  |
| 3.0 | CS 301 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 330 |  |
| 3.0 | CS 335 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS 350 |  |
| 3.0 | CS 372 |  |
| 3.0 | CS 476 |  |
| 3.0 | CS 400-level |  |
| 3.0 | CS 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | MATH or STAT above 200 (not MATH 261) |  |
| 66.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |


| Credit <br> hours | BSc with major in <br> Computer Science, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective *this course <br> cannot be from the <br> subjects of CS, Math, <br> Stats or ACSC |  |
| 3.0 | Open elective *this course <br> cannot be from the <br> subjects of CS, Math, <br> Stats or ACSC |  |
| $\mathbf{1 2 0 . 0}$ | Total |  |

### 16.13.1.3 BSc Honours in Computer Science

Refer to §16.6 and §16.9.2 for additional important information.

| Credit <br> hours | BSc Honours in <br> Computer Science, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 280 |  |
| 3.0 | CS 301 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 330 |  |
| 3.0 | CS 335 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS 350 |  |
| 3.0 | CS 372 |  |
| 3.0 | CS 412 |  |
| 3.0 | CS 476 |  |
| 3.0 | Any CS 200-, 300-, or <br> $400-l e v e l ~(n o t ~ M A T H ~ 261) ~$ |  |
| 3.0 | Any CS 200-, 300-, or <br> $400-l e v e l ~(n o t ~ M A T H ~ 261) ~$ |  |
| 3.0 | CS 400-level |  |
| 3.0 | CS 400-level |  |

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| Credit hours | BSc Honours in Computer Science, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS 400-level |  |
| 0.0 | CS 498 |  |
| 0.0 | CS 499 |  |
| 0.0 | CS 499 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | MATH or STAT course above 200 (not MATH 261) |  |
| 81.0 | Subtotal: Major Requirements | 75\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective *this course cannot be from the subjects of CS, Math, Stats or ACSC. |  |
| 3.0 | Open elective *this course cannot be from the subjects of CS, Math, Stats or ACSC. |  |
| 120.0 | Total | 70\% Program GPA required |

16.13.1.4 BSc Combined Major in Computer Science and Mathematics
Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Combined Major in <br> Computer Science and <br> Mathematics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS or MATH 261 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS or MATH 361 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |


| Credit <br> hours | BSc Combined Major in <br> Computer Science and <br> Mathematics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
| 3.0 | STATH 327 160 or 200 |  |
| 3.0 | Three courses from: <br> MATH 301, 322, 323, 329, <br> $381, ~ 429, ~ C S ~ 350, ~ 410, ~$ |  |
| 3.0 | 411, 412 |  |
| 3.0 | Subtotal |  |
| 3.0 | OpGL 100 |  |
| 75.0 | Open |  |
| 3.0 | Open elective | required |

16.13.1.5 BSc Honours Combined Major in Computer Science \& Mathematics
Refer to $\S 16.6$ and $\S 16.9 .2$ for additional important information.

| Credit <br> hours | BSc Honours Combined <br> Major in Computer <br> Science and <br> Mathematics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 261 or MATH 261 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS 361 or MATH 361 |  |


| Credit hours | BSc Honours Combined Major in Computer Science and Mathematics, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS 412 |  |
| 0.0 | CS 498 or MATH 497 |  |
| 0.0 | CS 499 or MATH 498 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
| 3.0 | MATH 313 |  |
| 3.0 | MATH 327 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | TWO courses from: |  |
| 3.0 | $429, \operatorname{CS} 410,411$ |  |
| 3.0 | MATH 301, 381, CS 350, or 461 |  |
| 3.0 | MATH 301, 381, CS 350, or 461 |  |
| 3.0 | MATH 400-level or CS 400-level |  |
| 3.0 | MATH 400-level or CS 400-level |  |
| 90.0 | Subtotal: Major Requirements | 75\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 70\% Program GPA required |

16.13.1.6 BSc in Software Systems Development

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc in Software <br> Systems Development, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 280 |  |
| 3.0 | CS 301 |  |


| Credit <br> hours | BSc in Software <br> Systems Development, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 310 |  |
| 3.0 | CS 330 |  |
| 3.0 | CS 335 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS 350 |  |
| 3.0 | CS 372 |  |
| 3.0 | CS 411 |  |
| 3.0 | CS 412 |  |
| 3.0 | CS 428 |  |
| 3.0 | CS 476 |  |
| 3.0 | CS 400-level |  |
| 3.0 | CS 473, ENSE 474, or <br> ENSE 475 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | ENEL 280 |  |
| 3.0 | ENEL 282 |  |
| 3.0 | ENEL 384 |  |
| 3.0 | ENEL 387 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | PHYS 109 and 119 or; <br> PHYS 111 and 112 |  |
| 3.0 | BUS 260 |  |
| 3.0 | BUS 302 |  |
| 3.0 | ECON 100, 201 or 202 |  |
| 3.0 | Subtotal | $\mathbf{6 5 \%}$ Major GPA |
| 99.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Total |  |
| $\mathbf{1 2 0 . 0}$ |  |  |
|  | required |  |

### 16.13.1.7 Post-Diploma BSc in Computer Science

This program is available to graduates of the two-year diploma programs in Computer Systems Technology and Computer Information Systems from Saskatchewan Polytechnic. Graduates of other diploma programs in these areas may also be considered for admission. Students must have completed the diploma program within the last ten years.
Refer to §2.4.2 for additional important information.

| BSc in Computer Science |  |  |
| :--- | :--- | :--- |
| Diploma in Computer Systems Technology or Computer <br> Information Systems from Saskatchewan Polytechnic: |  |  |
| 60.0 hours of block transfer credit |  |  |
| Credit <br> hours | Computer Science <br> major (University of <br> Regina), required <br> courses | Student's record of <br> courses completed |


| 3.0 | CS 215 |  |
| :--- | :--- | :--- |
| 3.0 | CS 301 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | Two courses from: <br> CS 261, 350, 410, 412, <br> 428 |  |
| 3.0 | CS 400-level |  |
| 3.0 | CS 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH or STAT course <br> above 200 (except for <br> MATH 261) |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Subtotal | 65\% U of R GPA <br> required |
| $\mathbf{6 0 . 0}$ | Total |  |
| $\mathbf{1 2 0 . 0}$ | Tor\| |  |

16.13.1.8 BSc in Computer Science, Business Area of Concentration

| Credit hours | BSc with major in Computer Science, Business Area of Concentration, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 205 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 270 |  |
| 3.0 | CS 280 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 335 |  |
| 3.0 | CS 372 |  |
| 3.0 | CS 375 |  |
| 3.0 | CS 473 |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | ECON 100 |  |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 202 |  |
| 3.0 | PSYC 101 or 102 |  |


| Credit <br> hours | BSc with major in <br> Computer Science, <br> Business Area of <br> Concentration, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BUS 100 |  |
| 3.0 | BUS 205 |  |
| 3.0 | BUS 210 |  |
| 3.0 | BUS 260 |  |
| 3.0 | BUS 285 |  |
| 3.0 | BUS 290 |  |
| 3.0 | ENGL 251 | 65\% Major GPA <br> required |
| 99.0 | Subtotal: Major <br> Requirements |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| $\mathbf{1 2 0 . 0}$ | Total | $\mathbf{6 5 \%}$ Program GPA <br> required |

16.13.1.9 BSc in Computer Science with Creative Technologies Concentration

| Credit <br> hours | BSc. in Computer <br> Science with Creative <br> Technologies <br> Concentration, required <br> courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 205 |  |
| 3.0 | CS 207 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS 280 |  |
| 3.0 | Three of: CS 301, 310, |  |
| 3.0 | CS 315 335, 372 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS 428 |  |
| 3.0 | CS 400-level |  |
| 3.0 | CS 400-level * |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 221 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | CTCH 110 |  |
| 3.0 |  |  |


| 3.0 | CTCH 111 |  |
| :--- | :--- | :--- |
| 3.0 | CTCH 203 |  |
| 3.0 | FILM 280AC |  |
| 3.0 | CTCH 204 |  |
| 3.0 | CTCH 300- or 400-level <br> from list in handbok ** |  |
| 3.0 | CTCH 300- or 400-level <br> from list in handbook ** |  |
| 3.0 | PSYC 101 or 102 |  |
| 3.0 | ENGL 251 | Total <br> required |
| $\mathbf{9 9 . 0}$ | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Open elective |
| 3.0 | Capstone project *** | Total <br> Tequired |
| 3.0 | It is highly recommend that fourth year CS <br> electives be related to creative technology, such <br> as CS 405, CS 408, CS 409, CS 425, CS 427, <br> CS 455 |  |
| 3.0 | CTCH lectives will be selected from the list of <br> available electives in the CTCH handbook |  |
| $\mathbf{1 2 0 . 0}$ | The CTCH Capstone project course will consist of <br> a major project implemented by the student. <br> Details reside in the CTCH handbook and are <br> currently being finalized |  |
| $*$ | ** |  |
| $* * *$ |  |  |

16.13.1.10

| Credit <br> hours | Computer Science <br> minor <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |
| 3.0 | CS any level |  |
| 3.0 | CS 300- or 400-level |  |
| 3.0 | CS 300- or 400-level |  |
| $\mathbf{1 8 . 0}$ | Subtotal | $\mathbf{6 5 \%}$ Minor GPA <br> required |

### 16.13.1.11 Minor in Creative Technologies

The minor in Creative Technologies is offered jointly with the Faculty of Media, Art, and Performance. For purposes of elective requirements, CTCH courses are considered to be categorized as Media, Art, and Performance courses.

| Credit <br> hours | Creative Technologies <br> minor required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CTCH 110 |  |
| 3.0 | ART 280 or CS 207 |  |
| 3.0 | CTCH 203 |  |
| 3.0 | CTCH 200- or 300-level |  |
| 3.0 | CTCH 200- or 300-level |  |
| 3.0 | Approved Elective* |  |
| $\mathbf{1 8 . 0}$ | Subtotal | 65\% Minor GPA <br> required |
| *Approved Electives: ART 280, 223, 380, CS 205, 207, 215, 408, <br> 409, 427, 428, ENGG 100, ENGG 123, MUCO 326, MUCO 327, or <br> THDS 347. |  |  |

### 16.14 Programs in Economics

### 16.14.1 Academic Programs

The Department offers the following programs, described below:
Refer to $\S 9.18$ for more information. Courses within the major requirements in Economics are considered Science courses only for the purposes of these programs. Students planning an honours program should consult with the Head of the Economics Department.

### 16.14.1.1 BSc in Economics

| Credit hours | BSc with major in Economics, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 202 |  |
| 3.0 | STAT160 or STAT 200 |  |
| 3.0 | ECON 301 |  |
| 3.0 | ECON 302 |  |
| 3.0 | ECON 321 |  |
| 3.0 | ECON 322 |  |
| 3.0 | Two STAT courses above 200 or Two MATH courses above 110 |  |
| 3.0 |  |  |
| 3.0 | ECON any level |  |
| 3.0 | ECON any level |  |
| 3.0 | Two of: ECON 308, 309, |  |
| 3.0 | 401, 402 |  |
| 3.0 | ECON 300- or 400-level |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 103 or 110 |  |
| 48.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective (not ECON) |  |
| 3.0 | Science elective (not ECON) |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |


| Credit <br> hours | BSc with major in <br> Economics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | $\mathbf{6 5 \%}$ Program GPA <br> required |

16.14.1.2 BSc Honours in Economics

| Credit <br> hours | BSc with major in <br> Economics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 202 |  |
| 3.0 | ECON 224 |  |
| 3.0 | ECON 280 |  |
| 3.0 | ECON 301 |  |
| 3.0 | ECON 302 |  |
| 3.0 | ECON 308 |  |
| 3.0 | ECON 309 |  |
| 3.0 | ECON 321 |  |
| 3.0 | Ene of ECON 311, 341, <br> $353,354, ~ 361, ~ 363, ~ 364, ~$ <br> $372, ~ 396, ~ 496 ~$ |  |
| 3.0 | ECON 401 |  |
| 3.0 | ECON 402 |  |
| 3.0 | ECON 480 (with a grade <br> of at least 75\%) |  |
| 3.0 | ECON 499 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Two STAT courses above <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Above 110 MATH courses |  |


| Credit <br> hours | BSc with major in <br> Economics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | Science elective (not <br> ECON) |  |
| 3.0 | Science elective (not <br> ECON) |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $\mathbf{7 0 \% ~ P r o g r a m ~ G P A ~}$ |
| 3.0 | Open elective | required |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Total |
| 120.0 | Opr\| |  |
|  |  |  |

16.14.1.3 BSc Combined Major in Statistics and Economics

For the purposes of this combined degree only, economics courses cannot be used to fulfill the BSc requirement of 18 credit hours in Arts, or Media, Art, and Performance.
The Bachelor of Science program is offered by the Faculty of Science. Refer to $\S 16$ for additional important information, in particular §16.9.1, and $\S 16.16 .2 .8$. It is recommended that students seek academic advising from the Department of Mathematics and Statistics or from the Department of Economics.

| Credit <br> hours | BSc Combined Statistics <br> and Economics major, <br> required courses | Student's record <br> of courses <br> completed |  |  |
| :--- | :--- | :--- | :---: | :---: |
| 3.0 | MATH 110 |  |  |  |
| 3.0 | MATH 111 |  |  |  |
| 3.0 | MATH 122 |  |  |  |
| 3.0 | MATH 213 |  |  |  |
| 3.0 | STAT 160, 200, or 289 |  |  |  |
| 3.0 | STAT 251 |  |  |  |
| 3.0 | STAT 252 |  |  |  |
| 3.0 | STAT 351 |  |  |  |
| 3.0 | STAT 354 |  |  |  |
| 3.0 | STAT above 354 |  |  |  |
| 3.0 | STAT above 354 <br> level; STAT 200-, 300- or 400-, or <br> 400-level; or ACSC any level |  |  |  |
| 3.0 | ECON 201 |  |  |  |
| 3.0 | ECON 202 |  |  |  |
| 3.0 | ECON 301 |  |  |  |
| 3.0 | ECON 302 |  |  |  |
| 3.0 | ECON 321 |  |  |  |
| 3.0 | ECON 322 |  |  |  |
| 3.0 | ECON any level |  |  |  |
| 3.0 |  |  |  |  |
| 3.0 |  |  |  |  |


| Credit <br> hours | BSc Combined Statistics <br> and Economics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | ECON any level |  |
| 3.0 | Two of: ECON 308, 309 <br> $401, ~ 402$ |  |
| 3.0 | CS 110 |  |
| 3.0 | Subtotal: $65 \%$ major GPA <br> required |  |
| 72.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Lab Science elective |  |
| 3.0 | Lab Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Total: $65 \%$ program GPA <br> required |  |
| 120.0 | PRA |  |

### 16.15 Programs in Geography

### 16.15.1 Academic Programs

The Department offers the following programs, described below:
Refer to $\S 9.18$ for more information. Courses within the major requirements in geography are considered Science courses only for the purposes of these programs. Students planning an honours program should consult with the Head of the Geography Department.
Refer to §16.11.1.8 BSc Combined Major in Biology and Geography

### 16.15.1.1 BSc in Geography

Refer to §16.6 and §16.9.1 for additional important information.

| Credit hours | BSc with major in Geography, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | GEOG 120 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | Three courses from GEOG 203, 207, 297AAZZ, ENST 200 |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | Three GEOG courses at the 200-, 300 -, or $400-$ level |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | Five additional courses from GEOG 303, 307, 309, 321, 323, 325, 327, 329, 333, 391AA-ZZ, 397AA-ZZ, 409, 411, 421, 423, 429, 431, 491AA-ZZ, 497AA-ZZ |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | GEOG 400-level |  |


| Credit <br> hours | BSc with major in <br> Geography, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | BIOL 100, 101, or 150 |  |
| 3.0 | CHEM 104 or PHYS 109 |  |
| 3.0 | CS 110 |  |
| 3.0 | STAT 100 or 160 |  |
| 3.0 | MATH 103 or 110 |  |
| 57.0 | Subtotal: Major <br> Requirements | 65\% Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Open elective |

16.15.1.2 BSc Honours in Geography

Refer to §16.6 and §16.9.2 for additional important information.

| Credit hours | Honours BSc Geography major, Required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | GEOG 120 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | Three courses from GEOG 203, 207, 297AAZZ, ENST 200 |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | Any three GEOG courses at the 200-, 300- or 400level |  |
| 3.0 |  |  |
| 3.0 |  |  |


| Credit hours | Honours BSc Geography major, Required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | Five courses from GEOG 303, 307, 309, 321, 323, 325, 327, 329, 333, 391AA-ZZ, 397AA-ZZ, 409, 411, 421, 423, 429, 431, 491AA-ZZ, 497AAZZ |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 |  |  |
| 3.0 | GEOG 400-level |  |
| 3.0 | GEOG 400-level |  |
| 6.0 | GEOG 499 (499AC or both 499AA and 499BB) |  |
| Cognate Courses |  |  |
| 3.0 | BIOL 150 |  |
| 3.0 | CHEM 104 or PHYS 109 |  |
| 3.0 | CS 110 |  |
| 3.0 | STAT 100 or 160 |  |
| 3.0 | MATH 103 or 110 |  |
| 66.0 | Subtotal: Major Requirements | 75\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 70\% Program GPA required |

### 16.15.2 Professional Registration as a Geoscientist in the Province of Saskatchewan

Graduates with a BSc in Geography from the University of Regina may apply for membership in the Association of Professional Engineers and Geoscientists of Saskatchewan. Candidates should meet with the Faculty Advisor, at the earliest opportunity, to plan a curriculum that meets the requirements for professional registration. For more information on APEGS see the website: www.apegs.sk.ca.

### 16.16 Department of Geology

CW 230
University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4147; fax: 306-585-5433
Website: www.uregina.ca/science/geology
Email: geology.office@uregina.ca

### 16.16.2 Academic Programs

The Department offers the following programs, described below:
Students planning an honours program should consult with the Head of the Geology Department.

### 16.16.2.1 BSc in Geology

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Geology major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | GEOL 102 |  |
| 3.0 | GEOL 201 |  |
| 3.0 | GEOL 210 |  |
| 3.0 | GEOL 211 |  |
| 3.0 | GEOL 240 |  |
| 3.0 | GEOL 241 |  |
| 3.0 | GEOL 307 |  |
| 3.0 | GEOL 313 |  |
| 3.0 | GEOL 314 |  |
| 3.0 | GEOL 315 |  |
| 3.0 | GEOL 340 |  |
| 3.0 | GEOL 353 |  |
| 3.0 | GEOL 396 |  |
| 3.0 | GEOL 453 |  |
| 3.0 | GEOL 496 |  |
| 3.0 | GEOL 400 or higher (400AA <br> and 400AB, for 3 credit hours <br> each, or 400AC for 6 credit <br> hours) |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | GEOL 400 or higher (400AA <br> and 400AB, for 3 credit hours <br> each, or 400AC for 6 credit <br> hours) |  |
| 3.0 | ENGL |  |
| 3.0 | Science elective* (APEGS <br> approved) |  |
| 3.0 |  |  |
| and 400 or higher (400AB, for 3 credit hours |  |  |
| each, or 400AC for 6 credit |  |  |
| hours) |  |  |
| Rubtotal: Major |  |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CS 110 |  |
| 3.0 | GEOG 323 |  |
| 3.0 | MATH 110 |  |
| 3.0 | PHYS 109ired |  |


| Credit <br> hours | BSc Geology major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | 65\% Program <br> GPA required |
| 3.0 | Open elective | Open elective |
| 3.0 | Total |  |
| $\mathbf{1 2 0 . 0}$ | *For APEGS accreditation, these courses must be from Biology, <br> Chemistry, Computer Science, Math, Physics or Statistics, and be <br> acceptable by APEGS. For more information regarding APEGS <br> Accreditation, please see website: http://www.apegs.sk.ca/ |  |

### 16.16.2.2 BSc Honours in Geology

Refer to §16.6 and §16.9.2 for additional important information.
Students planning an honours program should consult with the Head of the Geology Department.

| Credit <br> hours | BSc Honours in Geology, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | GEOL 102 |  |
| 3.0 | GEOL 201 |  |
| 3.0 | GEOL 210 |  |
| 3.0 | GEOL 211 |  |
| 3.0 | GEOL 240 |  |
| 3.0 | GEOL 241 |  |
| 3.0 | GEOL 307 |  |
| 3.0 | GEOL 313 |  |
| 3.0 | GEOL 314 |  |
| 3.0 | GEOL 315 |  |
| 3.0 | GEOL 340 |  |
| 3.0 | GEOL 353 |  |
| 3.0 | GEOL 396 |  |
| 6.0 | GEOL 400AC (as GEOL 400AA <br> and GEOL AB) |  |
| 3.0 | GEOL 453 |  |
| 3.0 | GEOL 496 |  |
| 3.0 | GEOL 413 or higher |  |
| 3.0 | GEOL 413 or higher |  |
| 3.0 | GEOL 413 or higher |  |
| 3.0 | GEOL 413 or higher |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CS 110 |  |
| 3.0 | GEOG 323 |  |
| 3.0 | MATH 110 |  |
| 3.0 | PHYS 109 and 119 or <br> PHYS 111 and 112 |  |
| 3.0 | STAT 100 or 160 |  |
| 3.0 | Science elective* |  |
| 3.0 | approved) |  |
| 3.0 | Science elective* (APEGS <br> approved) |  |
| 93.0 | Subtotal: Major <br> Requirements |  |
| 3.0 | ENGL 100 |  |


| Credit <br> hours | BSc Honours in Geology, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| $\mathbf{1 2 0 . 0}$ | Total | 70\% Program GPA <br> required |

* For APEGS accreditation, these courses must be from Biology, Chemistry, Computer Science, Math, Physics or Statistics, and be acceptable by APEGS. For more information regarding APEGS Accreditation, please see website: http://www.apegs.sk.ca/


### 16.16.2.3 BSc in Environmental Geoscience

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Combined major in <br> Geology and Geography, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | GEOL 102 |  |
| 3.0 | GEOL 201 |  |
| 3.0 | GEOL 210 |  |
| 3.0 | GEOL 211 |  |
| 3.0 | GEOL 240 |  |
| 3.0 | GEOL 241 |  |
| 3.0 | GEOL 307 or BIOL 456 |  |
| 3.0 | GEOL 314 |  |
| 3.0 | GEOL 329 or GEOG 329 |  |
| 3.0 | GEOL 353 |  |
| 3.0 | GEOL 396 or GEOG 411 |  |
| 3.0 | GEOL 429 or GEOG 429 |  |
| 3.0 | GEOL 460 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | GEOG 203 |  |
| 3.0 | GEOG 207 |  |
| 3.0 | GEOG 303 |  |
| 3.0 | GEOG 309 |  |
| 3.0 | GEOG 321 |  |
| 3.0 | GEOG 323 |  |
| 3.0 | GEOG 327 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 110 |  |
| 3.0 | PHYS 109 and 119 or |  |
| 3.0 | PHYS 111 and 112 |  |
| 3.0 | STAT 100 or 160 |  |
| 3.0 | BIOL 100 or 101 |  |
| 87.0 | Subtotal: Major <br> Requirements |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Ars, or Media, Art, and <br> Performance elective |  |
|  |  |  |


| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| :--- | :--- | :--- |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | 65\% Program <br> GPA required |
| $\mathbf{1 2 0 . 0}$ | Total |  |

16.16.2.4 BSc Honours in Environmental Geoscience

Refer to §16.6 and §16.9.2 for additional important information.
Students planning an honours program should consult with the Head of the Geology Department.

| Credit hours | BSc Combined major in Geology and Geography, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | GEOL 102 |  |
| 3.0 | GEOL 201 |  |
| 3.0 | GEOL 210 |  |
| 3.0 | GEOL 211 |  |
| 3.0 | GEOL 240 |  |
| 3.0 | GEOL 241 |  |
| 3.0 | GEOL 307 or BIOL 456 |  |
| 3.0 | GEOL 314 |  |
| 3.0 | GEOL 329 or GEOG 329 |  |
| 3.0 | GEOL 353 |  |
| 3.0 | GEOL 396 or GEOG 411 |  |
| 6.0 | GEOL 400AC (or GEOL 400AA and 400AB), or GEOG 499AC (or GEOG 499AA and 499AB) |  |
| 3.0 | GEOL 413 or higher; or GEOG 409 or higher |  |
| 3.0 | GEOL 429 or GEOG 429 |  |
| 3.0 | GEOL 460 |  |
| 3.0 | GEOG 121 |  |
| 3.0 | GEOG 203 |  |
| 3.0 | GEOG 207 |  |
| 3.0 | GEOG 303 |  |
| 3.0 | GEOG 309 |  |
| 3.0 | GEOG 321 |  |
| 3.0 | GEOG 323 |  |
| 3.0 | GEOG 327 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CS 110 |  |
| 3.0 | MATH 110 |  |
| 3.0 | PHYS 109 and 119 or |  |
| 3.0 | PHYS 111 and 112 |  |
| 3.0 | STAT 100 or 160 |  |
| 3.0 | BIOL 100 or 101 |  |
| 96.0 | Subtotal: Major Requirements | $\begin{aligned} & \hline 75 \% \text { Major GPA } \\ & \text { required } \end{aligned}$ |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |


| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| :--- | :--- | :--- |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| $\mathbf{2 4 . 0}$ | Subtotal | 70\% Program <br> GPA required |
| $\mathbf{1 2 0 . 0}$ | Total |  |

16.16.2.5 Minor in Geology

| Credit <br> hours | Geology minor <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | GEOL 102 |  |
| 3.0 | GEOL 201 |  |
| 3.0 | GEOL 240 |  |
| 3.0 | GEOL 270 (students must opt <br> for another Geology course <br> instead of GEOL 270, if GEOL <br> 270 is a required course in their <br> Major Program.) |  |
| 3.0 | Two Geology courses as <br> approved by the Head of the <br> dept or Geology advisor |  |
|  |  |  |
| $\mathbf{1 8 . 0}$ | Subtotal |  |

### 16.16.3 Professional Registration as a Geoscientist in the Province of Saskatchewan

Graduates with a BSc in Geology from the University of Regina may be eligible to apply for membership in the Association of Professional Engineers and Geoscientists of Saskatchewan. Candidates should meet with the Faculty Advisor, at the earliest opportunity, to plan a curriculum that meets the requirements for professional registration. For more information on APEGS see the website: www.apegs.sk.ca

### 16.17 Department of Mathematics and Statistics

CW 307.14
University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4148; fax: 306-585-4020
Website: www.uregina.ca/science/mathstat/index.html
Table of Equivalent Courses and Prerequisites

| Course | Equivalent Courses |
| :--- | :--- |
| AMTH 091 | AMTH 001, Math A30, Found. \& PreCalc 10 |
| AMTH 092 | AMTH 002, Math B30, PreCalc 20 |
| AMTH 003 | Math C30, PreCalc 30 |

### 16.17.2 Academic Programs

The Department offers the following programs, described below:

### 16.17.2.1 BSc in Mathematics

Refer to §16.6 and §16.9.1 for additional important information.

| Credit hours | BSc Mathematics major, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
| 3.0 | MATH 313 |  |
| 3.0 | STAT 160 |  |
| 3.0 | MATH 300- or 400-level |  |
| 3.0 | MATH 300- or 400-level |  |
| 3.0 | MATH or STAT above 250 or ACSC any level |  |
| 3.0 | MATH or STAT above 250 or ACSC any level |  |
| 3.0 | CS 110 |  |
| 51.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |


| Credit <br> hours | BSc Mathematics major, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Ope Program GPA <br> required |
| 3.0 | Open elective |  |
| 120.0 | Total |  |

16.17.2.2 BSc Honours in Mathematics

Refer to $\S 16.6$ and $\S 16.9 .2$ for additional important information.
All students in an honours program should consult with the Head of the Department.

| Credit hours | Honours BSc Mathematics major, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
| 3.0 | MATH 313 |  |
| 3.0 | MATH 323 |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400- level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 3.0 | MATH 200-, 300-, or 400level |  |
| 0.0 | MATH 497 |  |
| 0.0 | MATH 498 |  |
| 3.0 | MATH 400-level |  |
| 3.0 | MATH 400-level |  |

16. Faculty of Science

| Credit <br> hours | Honours BSc <br> Mathematics major, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | STAT 160 |  |
| $\mathbf{7 2 . 0}$ | Subtotal: Major <br> Requirements | 75\% Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $\mathbf{7 0 \%}$ Program GPA |
| 120.0 | Total | required |

16.17.2.3 BSc with Combined Major in Mathematics and Computer Science
Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc with major in <br> Mathematics and <br> Computer Science, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS or MATH 261 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS or MATH 361 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
| 3.0 | MATH 327 |  |
| 3.0 | STAT 160 |  |
| 3.0 | Three courses from: |  |
| 3.0 | MATH 301, 322, 323, 329, |  |


| Credit hours | BSc with major in Mathematics and Computer Science, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | $\begin{aligned} & 381,429, \text { CS } 350,410, \\ & 411,412 \end{aligned}$ |  |
| 75.0 | Subtotal: Major Requirements | 65\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 120.0 | Total | 65\% Program GPA required |

16.17.2.4 BSc Honours with Combined Major in Mathematics and Computer Science
Refer to §16.6 and §16.9.2 for additional important information.

| Credit <br> hours | Honours BSc <br> Mathematics and <br> Computer Science <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | CS 201 |  |
| 3.0 | CS 210 |  |
| 3.0 | CS 215 |  |
| 3.0 | CS or MATH 261 |  |
| 3.0 | CS 310 |  |
| 3.0 | CS 320 |  |
| 3.0 | CS 340 |  |
| 3.0 | CS or MATH 361 |  |
| 3.0 | CS 412 |  |
| 0.0 | CS 498 or MATH 497 |  |
| 0.0 | CS 499 or MATH 498 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 223 |  |
| 3.0 | MATH 305 |  |
| 3.0 | MATH 312 |  |
|  |  |  |


| Credit <br> hours | Honours BSc <br> Mathematics and <br> Computer Science <br> major, required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | MATH 313 |  |
| 3.0 | MATH 327 |  |
| 3.0 | STAT 160 |  |
| 3.0 | Two courses from: MATH <br> 322, 323, 329, 427, 429, |  |
| 3.0 | CS 410, 411 |  |

16.17.2.5 BSc in Statistics

Refer to $\S 16.6$ and $\S 16.9 .1$ for additional important information.

| Credit hours | BSc with major in Statistics, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | CS 110 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | STAT 351 |  |
| 3.0 | STAT 354 |  |
| 3.0 | STAT 357 |  |
| 3.0 | STAT 452 |  |
| 3.0 | STAT 485 |  |
| 3.0 | Four from: STAT 300, |  |
| 3.0 | 362, 384, 386, 418, 426, |  |
| 3.0 | 441, 451, 454, 456, 495 - |  |
| 3.0 | 498 |  |
| 51.0 | Subtotal: Major Requirements | $\begin{aligned} & \text { 65\% Major GPA } \\ & \text { required } \\ & \hline \end{aligned}$ |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |


| Credit <br> hours | BSc with major in <br> Statistics, required <br> courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Science, Arts, or Media, <br> Art, and Performance <br> elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $\mathbf{6 5 \% ~ P r o g r a m ~ G P A ~}$ |
| 120.0 | Total | required |

16.17.2.6 BSc with Major in Applied Mathematics and Statistics
Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Applied Mathematics <br> and Statistics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 3.0 | MATH 221 |  |
| 3.0 | MATH 312 |  |
| 3.0 | MATH 381 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | STAT 354 |  |
| 3.0 | STAT 300- or 400-level |  |
| 3.0 | STAT 300- or 400-level |  |
| 3.0 | STAT 300- or 400-level |  |
| 3.0 | MATH 300- or 400-level, or <br> STAT 300- or 400-level |  |


| Credit <br> hours | BSc Applied Mathematics <br> and Statistics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 300- or 400-level, or <br> STAT 300- or 400-level |  |
| 3.0 | MATH 300- or 400-level, or <br> STAT 300- or 400-level |  |
| 3.0 | MATH 400-level or STAT <br> 400-level |  |
| 3.0 | CS 110 |  |
| 3.0 | CS 261 or MATH 261 |  |
| 63.0 | Subtotal: Major <br> Requirements | $65 \%$ Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $65 \%$ program |
| 3.0 | Open elective | GPA required |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Total |

16.17.2.7 BSc with Combined Major in Statistics and Economics
Refer to $\S 16.6$ and $\S 16.9 .1$ for additional important information.
(For the purposes of this combined degree only, economics courses cannot be used to fulfill the requirement of 18 credit hours in Arts, or Media, Art, and Performance.)

| Credit <br> hours | BSc Combined Statistics <br> and Economics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | STAT 351 |  |
| 3.0 | STAT 354 |  |
| 3.0 | STAT above 354 |  |
| 3.0 | STAT above 354 |  |
| 3.0 | STAT above 354 |  |


| Credit <br> hours | BSc Combined Statistics <br> and Economics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH or STAT 200-, 300- or <br> 400-level, or ACSC any level |  |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 202 |  |
| 3.0 | ECON 301 |  |
| 3.0 | ECON 302 |  |
| 3.0 | ECON 321 |  |
| 3.0 | ECON 322 |  |
| 3.0 | ECON any level |  |
| 3.0 | ECON any level |  |
| 3.0 | Two of ECON 308. 309, 401, <br> 402 |  |
| 3.0 | CS 110 |  |
| 3.0 | Subtotal: <br> Major requirements | $\mathbf{6 5 \%}$ Major GPA <br> required |
| 72.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Science elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Total |
| 1.0 | $\mathbf{1 2 0 . 0}$ | GPA required |

### 16.17.2.8 BSc in Actuarial Science

Refer to §16.6 and §16.9.1 for additional important information.
By completing four internships (ACSC 041, 042, 043 and 044) as well as the requirements listed below a student may receive the BSc in Actuarial Science (with Internship). Students interested in either of these programs should consult the Head of the Department.

| Credit <br> hours | BSc Actuarial Science <br> major, <br> Required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 261 |  |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | STAT 351 |  |
| 3.0 | STAT 354 |  |
| 3.0 | MATH, STAT or ACSC 300- <br> or 400-level |  |


| Credit <br> hours | BSc Actuarial Science <br> major, <br> Required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | ACSC 116 |  |
| 3.0 | ACSC 216 |  |
| 3.0 | ACSC 217 |  |
| 3.0 | ACSC 316 |  |
| 3.0 | ACSC 317 |  |
| 3.0 | ACSC 318 |  |
| 3.0 | ACSC 417 |  |
| 3.0 | ACSC 418 |  |
| 3.0 | ACSC 419 |  |
| 3.0 | ACSC 456 |  |
| 3.0 | ECON 201 |  |
| 3.0 | ECON 202 |  |
| 3.0 | BUS 285 |  |
| 3.0 | BUS 395 |  |
| 3.0 | CS 110 |  |
| 78.0 | Subtotal: <br> Major Requirements |  |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Natural Science elective |  |
| 3.0 | Science elective (Not ACSC) |  |
| 3.0 | Science elective (Not ACSC) |  |
| 3.0 | Science elective (Not ACSC) |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | $\mathbf{6 5 \% ~ P r o g r a m ~}$ |
| 3.0 | Open elective | GPA required |
| $\mathbf{1 2 0 . 0}$ | Total |  |

16.17.2.9 Minor in Applied Mathematics

Refer to §16.9.1.4 for additional important information

| Credit <br> hours | Applied Mathematics <br> minor required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 222 |  |
| 3.0 | MATH 261 |  |
| 3.0 | MATH 312 |  |
| 3.0 | Two of MATH 322, 327, 329, <br> 3.0 361, or 381 |  |
| $\mathbf{1 8 . 0}$ | Subtotal |  |

### 16.17.2.10 Minor in Pure Mathematics

Refer to §16.9.1.4 for additional important information

| Credit <br> hours | Pure Mathematics minor <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 221 |  |


| 3.0 | MATH 223 |  |
| :--- | :--- | :--- |
| 3.0 | MATH 305 |  |
| 3.0 |  |  |
| 3.0 | Two of Math 312, 313, 321, <br> 323,381 |  |
| $\mathbf{1 8 . 0}$ | Subtotal |  |

### 16.17.2.11 Minor in Statistics

Refer to §16.9.1.4 for additional important information

| Credit <br> hours | Statistics minor <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | STAT 160 or 200 |  |
| 3.0 | STAT 251 |  |
| 3.0 | STAT 252 |  |
| 3.0 | STAT 351 |  |
| 3.0 | STAT 354 |  |
| 3.0 | STAT 300, 357, 362, 384 or <br> 386 |  |
| $\mathbf{1 8 . 0}$ | Subtotal |  |

### 16.18 Department of Physics

LB 226
University of Regina
Regina, SK S4S 0A2
Tel: 306-585-4149; fax: 306-585-5659
Website: www.phys.uregina.ca

### 16.18.2 Academic Programs

The Department offers the following programs, described below:
NOTE: PHYS 109 and 112, or PHYS 109 and 119 may be substituted for PHYS 111 and 112 in physics programs with the permission of the Department Head.

### 16.18.2.1 BSc in Physics

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc Physics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | PHYS 111 |  |
| 3.0 | PHYS 112 |  |
| 3.0 | PHYS 201 |  |
| 3.0 | PHYS 202 |  |
| 3.0 | PHYS 242 |  |
| 3.0 | PHYS 261 |  |
| 3.0 | PHYS 292 |  |
| 3.0 | PHYS 301 |  |
| 3.0 | PHYS 311 |  |
| 3.0 | PHYS 322 |  |
| 3.0 | PHYS 342 |  |
| 3.0 | PHYS 351 |  |
| 3.0 | PHYS 362 |  |
| 3.0 | PHYS 372 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 or 261 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
|  |  |  |


| Credit <br> hours | BSc Physics major, <br> required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | MATH 217 |  |
| 66.0 | Subtotal: <br> Major Requirements | 65\% Major GPA <br> required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Arts, or Media, Art, and <br> Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Perffrmance elective |  |
| 3.0 | Science, Arts, or Media, Art, <br> and Performance elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective |  |
| 3.0 | Open elective | Open elective <br> 3.0Open elective Total <br> 3.0 120.0 <br> GPA required  |

16.18.2.2 BSc Honours in Physics

Refer to §16.6 and §16.9.2 for additional important information.
Students planning an honours program should consult with the Head of the Physics Department.

| Credit <br> hours | Honours BSc Physics <br> major, required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | PHYS 111 |  |
| 3.0 | PHYS 112 |  |
| 3.0 | PHYS 201 |  |
| 3.0 | PHYS 202 |  |
| 3.0 | PHYS 242 |  |
| 3.0 | PHYS 261 |  |
| 3.0 | PHYS 292 |  |
| 3.0 | PHYS 301 |  |
| 3.0 | PHYS 311 |  |
| 3.0 | PHYS 322 |  |
| 3.0 | PHYS 342 |  |
| 3.0 | PHYS 362 |  |
| 3.0 | PHYS 372 |  |
| 3.0 | PHYS 401 |  |
| 3.0 | PHYS 471 |  |
| 3.0 | PHYS 490 |  |
| 0.0 | PHYS 421, 432 or 442 |  |
| 0.0 |  |  |
| 3.0 |  |  |


| Credit <br> hours | Honours BSc Physics <br> major, required courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | PHYS 421, 432 or 442 |  |
| 3.0 | GEOL 460, PHYS 300- or <br> 400-level |  |
| 3.0 | GEOL 460, PHYS 300- or <br> 400-level |  |
| 3.0 | GEOL 460, PHYS 300- or <br> 400-level |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 or 261 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 | $\mathbf{7 5 \% ~ M a j o r ~ G P A ~}$ |
| required |  |  |$|$| 3.0 | MATH 217 |
| :--- | :--- |

16.18.2.3 BSc in Applied Physics

Refer to §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | BSc in <br> Applied/Industrial <br> Physics with Emphasis <br> in Electronics and <br> Modern Physics, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 0.0 | PHYS 051 |  |
| 0.0 | PHYS 052 |  |
| 0.0 | PHYS 053 |  |
| 0.0 | PHYS 054 |  |
| 3.0 | PHYS 111 |  |
| 3.0 | PHYS 112 |  |
| 3.0 | PHYS 201 |  |
| 3.0 | PHYS 202 |  |
| 3.0 | PHYS 242 |  |
| 3.0 | PHYS 261 |  |
| 3.0 | PHYS 292 |  |
| 3.0 | PHYS 301 |  |
| 3.0 | PHYS 322 |  |
| 3.0 | PHYS 342 |  |
| 3.0 | PHYS 351 |  |
| 3.0 | PHYS 362 |  |
| 3.0 | PHYS 372 |  |
| 3.0 |  |  |


| 0.0 | PHYS 490 |  |
| :---: | :---: | :---: |
| 3.0 | CHEM 104 |  |
| 3.0 | CS 110 |  |
| 3.0 | CS 115 |  |
| 3.0 | ENGG 100 |  |
| 3.0 | MATH 110 |  |
| 3.0 | MATH 111 |  |
| 3.0 | MATH 122 |  |
| 3.0 | MATH 213 |  |
| 3.0 | MATH 217 |  |
| 69.0 | Subtotal: <br> Major Requirements | 70\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | PHYS 300- or 400-level |  |
| 3.0 | Approved CS Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Approved Elective* |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 3.0 | Arts, or Media, Art, and Performance elective |  |
| 120.0 | Total | 65\% Program GPA required |
| *Approved Electives: <br> Note: Students cannot use credit for CS 201 in the BSc Applied Physics program if the student has credit for ENEL 384 and ENSE 352 <br> CS Electives (maximum 6) |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| CS 201 - Intro Digital Systems |  |  |
| CS 210 - Data Structures |  |  |
| CS 215 - Web Programming |  |  |
| CS 261, Math 261 or CS 345 - Numerical Analysis |  |  |
| CS 305 or ENSE 471 - Human Interfaces |  |  |
| CS 310 - Computer Structures |  |  |
| CS 330 - Operating Systems |  |  |
| CS 340 or CS 375 - Databases |  |  |
| CS 372 - Software Engineering Methodology |  |  |
| CS 425 - Image Processing |  |  |
| Engineering Electives (maximum 7) |  |  |
|  |  |  |
| ENEL 281 or ENIN 233 - Signals, Circuits and Systems |  |  |
| ENEL 282 - Semiconductor Devices |  |  |
| ENEL 283 - Analog Electronics |  |  |
| ENEL 380 - Control Systems |  |  |
| ENEL 384 - Digital Electronics |  |  |
| ENEL 387 - Microcomputer Systems Design |  |  |
| ENEL 389 - Sensors |  |  |
| ENEL 395 - Antennas |  |  |
| ENSE 352 - Computer Architectures |  |  |
| ENSE 472 - Digital Networks |  |  |
| Math Electives |  |  |
| MATH 312 - Complex Analysis |  |  |
| STAT 160 or STAT 289 |  |  |
| Physics Electives <br> PHYS 300- or 400-level |  |  |
|  |  |  |

### 16.18.2.4 Minor in Physics

Students are responsible to ensure they have the proper prerequisites for the classes they take. Any combination of the following may count as a Physics Minor.

| Credit <br> hours | Physics minor, <br> required courses | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| 3.0 | PHYS any level (Except <br> 140 or 142) |  |
| 3.0 | PHYS any level (Except <br> 140 or 142) |  |
| 3.0 | PHYS 200-level |  |
| 3.0 | PHYS 200-level |  |
| 3.0 | PHYS 200-level |  |
| 3.0 | PHYS 300- or 400-level |  |
| $\mathbf{1 8 . 0}$ | Sub-total | $\mathbf{6 5 \%}$ Program GPA <br> required |

16.18.2.5 Bachelor of Medical Imaging (BMI) (Joint Program with Saskatchewan Polytechnic)
For admission to the BMI program students must have completed the Diploma of Medical Radiologic Technology from Saskatchewan Polytechnic with a minimum GPA of $60 \%$ in addition to meeting the high school admission requirements. Students meeting admission requirements will be granted 60.0 hours of block transfer credit toward this degree program.
Refer to §2.4.2, §16.6 and §16.9.1 for additional important information.

| Credit <br> hours | Required courses after <br> admission to University <br> of Regina: | Student's record of <br> courses completed |
| :--- | :--- | :--- |
| Year 3, Fall Semester, University of Regina |  |  |
| 3.0 | ENGL 100 |  |
| 3.0 | PSYC 101 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | MATH 110 |  |
| 3.0 | PHYS 109 |  |
| Year 3, Winter Semester, University of Regina |  |  |
| 3.0 | ENGL 110 |  |
| 3.0 | PSYC 102 |  |
| 3.0 | CHEM 105 |  |
| 3.0 | CHEM 140 |  |
| 3.0 | PHYS 112 |  |
| Year 4, Fall Semester, University of Regina |  |  |
| 3.0 | BIOC 220 |  |
| 3.0 | STAT 160 |  |
| 3.0 | PHYS 319 (permission) |  |
| 3.0 | CS 110 |  |
| 3.0 | Elective* |  |
| Year 4, Winter Semester, University of Regina |  |  |
| 3.0 | BIOC 221 |  |
| 3.0 | PSYC 210 |  |
| 3.0 | SOC 222 | Elective |

### 16.19 Programs in Psychology

### 16.19.1 Academic Programs

Refer to $\S 9.29$ for more information. Courses within the major requirements in Psychology are considered Science courses only for the purposes of these programs. Students planning an honours program should consult with the Head of the Psychology Department.
16.19.1.1 BSc in Psychology

| Credit <br> hours | BSc with major in <br> Psychology, required <br> courses | Student's record <br> of courses <br> completed |
| :--- | :--- | :--- |
| 3.0 | PSYC 101 |  |
| 3.0 | PSYC 102 |  |
| 3.0 | PSYC 204 |  |
| 3.0 | PSYC 210 |  |
| 3.0 | PSYC 220 |  |
| 3.0 | PSYC 230 |  |
| 3.0 | PSYC 255 |  |
| 3.0 | PSYC 270 |  |
| 3.0 | PSYC 305 |  |
| 3.0 | Three courses from: PSYC <br> $333, ~ 338, ~ 355, ~ 356, ~ 371, ~$ |  |
| 3.0 | 372, 373, 374, 375, 455AA- |  |
| 3.0 | ZZ |  |

### 16.19.1.2 BSc Honours in Psychology

| Credit hours | BSc with major in Psychology, required courses | Student's record of courses completed |
| :---: | :---: | :---: |
| 3.0 | PSYC 101 |  |
| 3.0 | PSYC 102 |  |
| 3.0 | PSYC 204 |  |
| 3.0 | PSYC 210 |  |
| 3.0 | PSYC 220 |  |
| 3.0 | PSYC 230 |  |
| 3.0 | PSYC 255 |  |
| 3.0 | PSYC 270 |  |
| 3.0 | PSYC 305 ${ }^{1}$ |  |
| 3.0 | Three courses from PSYC |  |
| 3.0 | 333, 338, 355, 356, 371, |  |
| 3.0 | $\begin{aligned} & 372,373,374,375,455 \\ & \text { AA-ZZ } \end{aligned}$ |  |
| 3.0 | PSYC 400-level |  |
| 3.0 | PSYC 400 AA |  |
| 3.0 | PSYC 400 AB |  |
| 3.0 | PSYC 405 |  |
| 3.0 | PSYC 406 or 407 |  |
| Cognate Courses |  |  |
| 3.0 | MATH 103 or 110 |  |
| 3.0 | BIOL 100 |  |
| 3.0 | BIOL 101 |  |
| 3.0 | CHEM 104 |  |
| 3.0 | CS 110 |  |
| 66.0 | Subtotal: Major Requirements | 75\% Major GPA required |
| 3.0 | ENGL 100 |  |
| 3.0 | ENGL 110 |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Arts, or Media, Art, and Performance Elective |  |
| 3.0 | Six of BIOC 220, BIOL |  |
| 3.0 | 201, 205, 288, 305, 378, |  |
| 3.0 | 380, 390, 395, CHEM |  |
| 3.0 |  |  |
| 3.0 | 327, MATH 111, 122, |  |
| 3.0 | PHYS 109, 119, or 319 |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 3.0 | Science, Arts, or Media, Art, and Performance elective |  |
| 120.0 | Total | 70\% Program GPA required |
| ${ }^{1}$ STAT 100 and 200, or STAT 160 may be substituted for PSYC 305 |  |  |


[^0]:    16.11.1.6 BSc in Biology, Ecology \& Environmental Biology Area of Concentration

