## Faculty of Science

### Introduction

### Inquiries

General inquiries can be directed to:

Faculty of Science, Science Academic Hub Room 238, Laboratory Building University of Regina Regina, SK S4S 0A2

Tel: 306-585-4199 Email: science@uregina.ca

Web site: www.uregina.ca/science

Faculty and Staff: www.uregina.ca/science/about/faculty-staff/in-

dex.html

### Structure of the Faculty

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

### **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, Diplomas in General Science and Computer Science, and Certificates in Foundations of Science and Statistics. The Faculty also offers combined Bachelor of Science programs in a number of interdisciplinary areas, and 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.

The Faculty of Science offers several pre-professional pathways and transfer opportunities for degrees offered by other institutions. Students may complete admission requirements for programs in Agriculture, Chiropractic, Dentistry, Law, Medicine, Nursing (U of S), Nutrition, Occupational Therapy, Optometry, Pharmacy, Physical Therapy, and Veterinary Medicine. For more information see the <a href="Professional Pathways">Professional Pathways</a> and <a href="Transfer Opportunities">Transfer Opportunities</a> section of the 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.

### Admission, Re-Admission, and Transfer

Please refer to the <u>Undergraduate Admissions</u> section for University policies on Admission, Re-admission, and Transfer.

### 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 (see Admissions section, minimum average of 70.00%), or have completed 15 credit hours as listed in the Admissions section.

Students who have failed more than 15.0 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 Associate Dean (Academic).

### Science Qualifying Process

Students applying to the Faculty of Science who do not meet the Science admissions requirements may be admitted to the Science Qualifying program if they:

- Possess a high school average between 65% and 69%, inclusive, or are missing only one of the three course requirements outlined in the Admissions section of the Undergraduate Calendar, or
- Possess a post-secondary UGPA (minimum of 15 credit hours) between 60.00% and 64.99%, inclusive, or are missing evidence of either a math or science course at either the secondary or postsecondary level.

Additionally, students applying to the Faculty of Science who do not meet the Science admission requirements may be admitted as Science Qualifying students if they:

- Meet the criteria to be admitted to the University of Regina as a mature student, or
- Are admitted at the discretion of the Faculty of Science

Students who are admitted as Science Qualifying have the following conditions placed on their admission:

- The student may register in a maximum of 12.0 credit hours per term.
- The student must complete the missing pre-requisite or approved replacement course within the first 45.0 credit hours of their program (see chart below). It is expected that the student will work towards completing any missing course requirement each term.
- The student must meet with a Science Academic Advisor during their first semester of study (preferably prior to registration) to review their Qualifying status and develop a registration plan.

Science Qualifying students will be reviewed each term. Qualifying status will be removed and a student will be changed to "fully qualified" status if at the *end* of the term:

- the student has achieved a UGPA of at least 60.00%, and;
- the student has successfully completed the missing pre-requisite or approved replacement course (see chart below), and;
- any other conditions on their admission that are outlined in their admissions letter have been completed.

Missing Course	Required Qualifying Course / Course Sequence
English language Arts A30 and B30 or an equivalent English literature course	ENGL 100
Pre-Calculus 30 or an equivalent Pre-Calculus course	MATH 102  Note: Math 102 requires high school prerequisites. Students not possessing the high school prerequisites (or equivalents) will be required to take additional courses including, but not limited to, PMTH 091, PMTH 092.
Two of: Biology 30, Calculus 30, Chemistry 30, Computer Science 30, Physics 30, Earth Science 30 or two of any equivalent Biology, Calculus, Chemistry, Computer Science, Earth Science, or Physics courses	Any 100-level course in the Faculty of Science

### Petition Guidelines

See also the Admissions section.

## 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 must write to the Academic Dean of their College. Students may appeal a denial to the Faculty's Student Appeals Committee (see the Faculty Appeal Procedures section).

### 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 terms) and then must petition to the Faculty for readmission.

### Residency and Transfer Credit

A maximum of 60 credit hours of eligible transfer credit may be applied to a degree program, 30 credit hours of eligible transfer credit to a diploma program, and 15 credit hours of eligible transfer credit to a certificate program, unless otherwise stated. The Certificate in Foundations of Science allows no more than 9.0 credit hours of transfer credit. 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 60.00% or higher or equivalent.

The Faculty of Science does not accept ACAD 100; AMTH 001, 091, 002, 092 and/or 003; PMTH 091, 092; RDWT 120, KIN 101 or courses numbered 0xx for credit toward any program in the Faculty of Science.

### Academic Advising and Registration

Through advising, the Faculty can communicate to our students the various programs that are offered within the Faculty, the opportunities available following successful completion, and general academic requirements, as well as assist with how to navigate the University of Regina policies and how to plan a program of study consistent with both degree requirements and individual interests.

The requirements for the various credentials are set out in the following pages. Notwithstanding advice given by faculty members, students who have questions concerning their degree requirements should consult the staff at the Science Academic Hub who will consult with the Associate Dean (Academic) as necessary.

Students register according to a priority system in which those who have earned the most credit hours register first. Students are encouraged to register online. Registration assistance is available online, by e-mail, and in person at the Science Academic Hub, (see General Information section).

### Course Load

The maximum course load in the Faculty of Science is 15 credit hours in each of fall and winter terms and 12 credit hours in spring/summer terms.

Students may not register for more than 15 credit hours in fall or winter term, or more than 12 credit hours in spring/summer, unless they have a UGPA of at least 75.00% or a TGPA of at least 75.00% in the most recent term. The approval of the Associate Dean (Academic) is required to register for an overload.

Students who have been accepted to co-operative education programs who have a scheduled academic study term in spring/summer may register for 15 credit hours with the permission of their departmental co-op coordinator.

### Evaluation of Academic Performance

In addition to the University Regulations in the <u>Academic Regulations</u> section, the following faculty regulations apply to all students registered in the Faculty of Science. See the Academic Regulations section for descriptions of the different types of GPA referred to in this section.

#### Dean's Honours List

To be named to the Dean's Honours List, students must attain an average of at least 85.00% in a given term on a minimum of 15 credit hours (12 credit hours during spring/summer term) of numerically graded courses.

### Probation and Discontinuance

Students who fail more than 50% of their credit hours in a single term 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 3 credit hours or fewer in the term. 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 terms.

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 terms 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), 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 the Other Faculty Regulations section.

# Time Limits, Graduation Requirements and Conferral of Degrees

Also refer to the **Graduation** section.

Except with permission from the Associate Dean (Academic) in consultation with the Department Head (or designate), all degree requirements must be completed within ten calendar years of the date of beginning the program.

A PGPA of 65.00% and major GPA of 65.00% are required for graduation with a Bachelor of Science, Bachelor of Medical Imaging, Bachelor of Medical Laboratory Science, Diploma in Computer Science, or Certificate in Indigenous Health Studies.

A PGPA of 80.00% is required for graduation with distinction (degrees only).

A PGPA of 85.00% is required for graduation with great distinction (degrees only).

A PGPA of 70.00% and major GPA of 75.00% are required for graduation with a BSc Honours degree.

A major GPA of 85.00% 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 65.00% 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 three work terms is required for graduation with a Co-operative Education Program designation.

Successful completion of twelve 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, or 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 the <u>Second Degrees</u> section.

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 a Science Academic Advisor, who will receive approval from the Associate Dean (Academic) 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 the Graduation section, applications for graduation may be submitted to the Faculty of Science or federated 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 term or wishing to receive their degrees in October must submit their applications for graduation by July 31. Students completing their requirements during the fall term or wishing to receive their degrees in January must submit their applications for graduation by November 30. Students completing their requirements during the winter term 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 the Graduation section.

### 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:

- Students who choose to complete their program rather than switch to the new or revised program will have a maximum of six (6) years to complete their program unless otherwise indicated at the time of the change.
- 1. Students who require readmission must enter the program that is current at the time of their readmission.
- 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.

### Other Faculty Regulations

### 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.

### **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 Department Head, 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.

### 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.

### Academic Program General Information

### Bachelor of Science (BSc)

#### 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.
- 2. 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.
- 3. 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<sup>1</sup> (as required to TOTAL: 120 credit hours), which may include a maximum of 18 credit hours in courses from faculties other than Science, Arts, La Cité, or Media, Art, and Performance.

**Note**: <sup>1</sup>The Faculty of Science encourages its students to include at least one of INDG 100 (Indigenous Studies) or ENVS 100 (Indigenous Environmental Studies) among their electives.

### **Limit on 100-level Courses**

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

#### **Selection of Majors**

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

### **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 fewer than 18.0 credit hours of open electives within the program, one KIN course meeting a minor requirement may substitute for a "Science, Arts, La Cité, or Media, Art, and Performance" elective.

### **Double and Combined Majors**

Students wishing to pursue a major in more than one discipline should discuss their program with a Science Academic Advisor, who will receive approval from 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 Geography, Mathematics and Statistics, and Statistics and Economics. Details about the specific course requirements for these programs can be found in the departmental listings.

### **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, and/or Actuarial Science.

For further information, refer to the Graduation section and the faculty Residency and Transfer Credit section.

### 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.

Students wishing to pursue a BSc Honours program require permission of the Department. Students pursuing a B.Sc. Honours in Economics, Geography and Environmental Science or Psychology must apply for admission according to the criteria set out by the Department housing the Honours program they are seeking. Please contact the Science Academic Hub for further information.

### Co-operative Education and 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 terms) 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.

### **Course Requirements and Planning Your Degree**

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

### **Work Terms**

Work terms are arranged with assistance from the University of Regina Centre for Experiential and Service Learning (https://www.ure-gina.ca/careercentre/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), or triple work terms (of 12 months duration) may be arranged. Students will typically take three work terms, with an option to take a fourth with the permission of the department's co-op coordinator.

**Notes:** 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 term and cannot end on a work term.

#### 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.

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; and
- must have achieved a minimum GPA of 70.00% overall and in courses required for the major.

Three work terms, with a fourth work term being optional, must be completed to obtain the "Co-operative Education" designation with the normal sequencing as follows (where A1 stands for Academic term one, H stands for free term, and W1 stands for Work term one):

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

For further details, contact Co-operative Education Office or visit its website: <a href="https://www.uregina.ca/careercentre/coop/">https://www.uregina.ca/careercentre/coop/</a>, 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 70.00% overall and in courses required for the major and must enrol in at least 12 credit hours in academic terms between work terms.

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 CHEM 140;
- have completed no more than 60 credit hours toward the BSc;
- have achieved a minimum GPA of 72.50% in courses required for the major and overall; and
- be enrolled in a program to complete at least three (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 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 72.50% 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 term (i.e. both may not be in summer terms).

For further details, contact the Co-operative Education Office or the head of the Department of Chemistry and Biochemistry.

## 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 three 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 four-month work and academic terms. The remaining work term(s) must be preceded and followed by an academic term.

#### **Entrance Criteria**

To be eligible for the Computer Science (CS) Co-op program, a student must:

- Have successfully completed a minimum of 30.0 credit hours at the time of application.
- 2. Have successfully completed CS 115.
- 3. Have achieved a minimum undergraduate grade point average (UGPA) of 70%.

**Note**: Students who do not register in their first co-op term prior to completing 60.0 credit hours may not have time to complete the required number of co-op work terms necessary to achieve the Co-op designation on their official transcript.

To continue in the CS Co-op program, a student must:

- Z. Maintain a minimum UGPA of 70% throughout their program. If a student's UGPA drops below 70%, permission of the Dept. Coop coordinator will be required in order to continue in the Co-op program.
- Must enroll in at least 9.0 credit hours in fall/winter or at least 3.0 credit hours in spring/summer between work terms.
- Three Co-op work terms are required to achieve the Co-op designation on the student's official transcript. Additional two work terms are optional.

**Note:** A Co-op work term is typically defined as 4-months (one term). Longer work terms may be considered at the discretion of the co-op coordinator. For further details, contact the Co-operative Education Office or visit its website: <a href="www.uregina.ca/careercentre/coop">www.uregina.ca/careercentre/coop</a>, or contact the Department of Computer Science.

### Co-operative Education Programs in Geology

The goal of the Co-operative Education Program is to provide handson employment experience for students enrolled in the BSc Geology or BSc (Honours) Geology programs. The BSc or BSc (Hons) degrees with Co-operative Education Program 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.

#### **Entrance Criteria**

At time of application, students must:

- have completed at least 33 credit hours but not more than 65 credit hours, including their current term of study, towards a BSc or BSc (Hons.) degree in Geology;
- have completed GEOL 201, GEOL 210, and GEOL 241 to be qualified for the co-op program; and
- achieve a GPA of at least 70.00% overall and in all courses required for the major.
- be full-time in the term prior to starting a work-term.

To continue in the co-op program, students must:

- maintain a GPA of at least 70.00% overall and in courses required for the major; and
- enrol in at least 12 credit hours in each academic term between work terms.

Time to Complete a BSc/BSc (Honours) 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 terms longer than a typical BSc or BSc (Hons.) program, assuming that students register in the maximum allowable credit hours of courses during all academic terms (including the spring/summer).

## 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.

### **Mathematics Co-op Program**

### **Entrance Criteria**

Students must:

- · have and maintain a GPA of 65.00%;
- be enrolled in 12 credit hours to be a full-time Co-op student; and
- complete three full terms of study including successful completion of MATH 110, 111, 122, 213, 217, CS 110, and STAT 160, before engaging in their first work term.

### **Statistics Co-op Program**

### **Entrance Criteria**

Students must:

- have and maintain a GPA of 65.00%;
- be enrolled in 12 credit hours to be a full-time Co-op student; and
- complete three full terms 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.

### Co-operative Education Program in Physics

Website: <a href="www.uregina.ca/science/physics/programs/co-op/in-dex.html">www.uregina.ca/science/physics/programs/co-op/in-dex.html</a>

Students must meet the criteria for admission to co-op as approved by the Faculty of Science (see the General Information for Students section). Students must have a CGPA of 70.00% to be admitted to the Physics co-op program and must maintain a CGPA of 75.00% to continue in the Physics co-op program. At the time of graduation, a student who has not met the 70.00% requirement, but who has a minimum CGPA of 65.00% and a PGPA of 65.00%, 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-operative Education coordinator.

### 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.

### **Entrance Criteria**

At time of application to the internship program, students must:

- have an overall average of at least 75.00%;
- plan to complete an actuarial exam before or during the internship placement;
- 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.

### Joint Programs with Saskatchewan Polytechnic

### 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 60.00% in addition to meeting the high school admission requirements for the Faculty of Science. Graduation from a similar, Canadian 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 hours	Bachelor of Medical Laboratory Science Required Courses after admission to the University of Regina
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	ENGL 100
3.0	PSYC 101 or PSYC 102
3.0	CHEM 140
3.0	MATH 110
3.0	CS 110
3.0	ENGL 110
3.0	BIOL 205
3.0	BUS 205
3.0	INHS 100
3.0	STAT 160
3.0	BIOC 220
3.0	BIOL 341 or STAT 201 or higher
3.0	BIOL 288
3.0	BIOC 330
3.0	BUS 260
3.0	PHIL 273 or PHIL 276
3.0	BIOC 221
9.0	Three Electives*
60.0	University of Regina Subtotal: 65.00% Program GPA required

<sup>\*</sup> The required electives must be from: BIOL 302, 305, 378, 390, 405, 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.

### Bachelor of Medical Radiation Technology (BMRT)

For admission to the BMRT program students must have completed a two-year Medical Radiation Technology Diploma Program\* in Canada recognized by Canadian Association of Medical Radiation Technologists (CAMRT) with a minimum GPA of 60.00% in addition to meeting the high school admission requirements for the Faculty of Science. An example of such a program is the Medical Radiologic Technology Diploma program at the Saskatchewan Polytechnic. Internationally Educated Medical Radiation Technologists with CAMRT certification will also be considered. Students meeting admission requirements will be granted 60 hours of block transfer credit towards this degree program.

At least one of the electives (3 credit hours) has to be taken in Faculties of Science, Arts, or Media, Art, and Performance.

\*Medical Radiation Technology includes disciplines of Medical Radiological Technology, Nuclear Medicine Technology, Magnetic Resonance Technology, and Medical Radiation Therapy.

Refer to the <u>Admissions</u> section and the <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	Bachelor of Medical Radiation Technology Required Courses after admission to University of Regina		
Year 3, Fall Term, University of Regina			
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science		
3.0	ENGL 100		
3.0	BUS 100		
3.0	CS 110		
3.0	MATH 110		
3.0	SOC 222		
Year 3, Winter	Term, University of Regina		
3.0	ENGL 110		
3.0	BUS 260		
3.0	CHEM 104		
3.0	STAT 160		
3.0	PHYS 109		
Year 4, Fall Term, University of Regina			
3.0	PHYS 119		
3.0	BUS 205		
3.0	BUS 250		
3.0	ECON 201 or 253		
3.0	Elective*		
Year 4, Winter	Year 4, Winter Term, University of Regina		
3.0	PHYS 219		
3.0	ECON 353		
3.0	PHIL 276		
3.0	*Elective		
3.0	*Elective		
60.0	Total University of Regina Subtotal: 65.00% Program GPA required		

<sup>\*</sup>At least one of the electives (3 credit hours) has to be taken in Faculties of Science, Arts, or Media, Art and Performance.

Approved Science, Arts, or Media, Art and Performance electives: JS 350, 381; PHIL 273, 277; PSCI 439; SOC 325; PHYS 201, 242, 319 Other approved electives: KIN 285; BUS 201, 301, 306, 356, 358, 361, 362, 363, 364, 461, 462.

The prerequisite for PHYS 242 is PHYS 201 and the prerequisite for BUS 301 is BUS 201.

### Other Joint Programs with Saskatchewan Polytechnic

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

- · A BSc program in Environmental Biology; and
- · A BSc Honours program in Environmental Biology; and
- · A BSc program in Chemical Technology; and

Post-Diploma Admission to the BSc Program in Computer Science is available to graduates of the approved two-year post-secondary diploma programs in Computer Systems Technology, and Business Information Systems.

Details about the specific course requirements for these programs can be found in the <u>Biology</u>, <u>Chemistry</u>, and <u>Computer Science</u> departmental listings.

# 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 credit 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 credit 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 Science Academic Hub or a Science Academic Advisor, who will receive approval from 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.

# Programs in Partnership with First Nations University of Canada

### 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 hours	BSc in Indigenous Environmental Science Required Courses		
Section A: Basic and Breadth Courses			
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science		
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	GES 120		
3.0	GES 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: Enviro	nmental Courses		
3.0	BIOL 275		
3.0	BIOL 276		
3.0	GEOL 270		
3.0	GES 200		
3.0	GES 326		
3.0	GEOL 329		
18.0	Subtotal		
Section C: Indiger	nous Courses		
3.0	INDG 100		
3.0	INDG 236		
6.0	Two of: ADMN 225, INDG 222AD, 234, 342, 360, or INDG 440/ADMN 436AM		

Credit hours	BSc in Indigenous Environmental Science Required Courses
3.0	Indigenous Language 100-level
15.0	Subtotal
Section D: Econom	nics and Law Courses
3.0	ECON 201
3.0	ECON 273
3.0	ECON 372
3.0	ENVS 200
12.0	Subtotal
Section E: Approve	ed Electives
24.0	Eight *Approved Science electives
24.0	Subtotal
120.0	Total: 65.00% Program GPA required
*Annroyed Flective	s for BSc in Indigenous Environmental Science

\*Approved Electives for BSc in Indigenous Environmental Science

#### Science Electives (Minimum of four)

BIOC 200, BIOL 205, 223, 266, 288, 302, 316, 335, 356, 365, 366, 367, 378, 380, 385 456, 457, 463, CHEM 210, GEOL 201, 210, 211, 240, 241, 307, 313, 314, 315, 353 Additional Electives

ADMN 260, 320, GES 203, 207, 210, 222, 232, 246, 303, 307, 309, 327, PHIL 275, SOC 230, WGST 201

### Certificate in Indigenous Health Studies

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 post-secondary institutions; and at the same time provide an Indigenous cultural perspective, understanding of the health care system, and knowledge of health career options.

Credit hours	Certificate in Indigenous Health Studies Required Course
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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-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

Credit hours	Certificate in Indigenous Health Studies Required Course
3.0	STAT 100
3.0	One Elective
60.0	Total: 65.00% Program GPA required

### Minor in Indigenous Knowledge and Science

The minor in Indigenous Knowledge and Science can be completed by any students registered in Arts, Science, Kinesiology, or Media, Arts, and Performance programs.

Credit hours	Minor in Indigenous Knowledge and Science Course Requirements
3.0	CHEM 101
3.0	ENVS 100 or ENVS 200
3.0	INDG 100
3.0	Indigenous Language 100-level
12.0	Four approved electives from lists A and B (at least one (1) elective course must be from List A)
24.0	Subtotal

## Approved Electives for the Indigenous Knowledge and Science Minor Note: Courses from List A are preferred.

List A (With Indigenous content in the course description)

- ADMN 436AM Natural Resource Development from an Indigenous Perspective
- BIOC 200 Medicinal Plants and Culture
- ENVS 100 Introduction to Indigenous Environmental Science
- ENVS 200 Indigenous Environmental Law
- INDG 222AD Indigenous and Traditional Ecological Knowledge
- INDG 236 Indigenous Economic, Environmental and Geographic Systems
- INDG 290AE Indigenous Ecological Knowledge and Resource Management
- INDG 360 Indigenous Economic Geography
- PHYS 140 Physics of Energy and the Environment
- INHS 100 Introduction to Indigenous Health Studies I
- INHS 101 Introduction to Indigenous Health Studies II

List B (No Indigenous content in the course description)

- BIOL 100 Biology I From Cells to Organisms
- BIOL 101 Biology II Organisms in their Environment
- BIOL 275 Ecology
- BIOL 276 Environmental Biology
- BIOL 316 Conservation Biology
- CS 100 Introduction to Computers
- $\bullet$  CS 110 Programming and Problem Solving
- GES 200 Introduction to Environmental Studies
- GES 400 Environmental Impact Assessment
- GES 120 Human Geography
- GES 121 Physical Geography
- GES 325 Biogeography
- GES 326 Environment and Resource Management
- GEOL 102 Environmental Geology
- GEOL 270 Earth Resources and the Environment
- GEOL 329 Soils and Sediment Analysis

- IDS 100 Interdisciplinary Studies: Historical Issues
- IDS 290AD Ecomuseums: Community Engagement for Sustainability
- MATH 101 Introductory Finite Mathematics I
- MATH 108 Mathematical Problems, Ideas and Personalities
- PHIL 275 Environmental Ethics
- PHIL 282 Philosophical Issues in Sustainable Development
- PHIL 370AF Environmental Ethics and Public Policy

# Certificate and Diploma Programs in General Science

### Certificate in the Foundations of Science

The Certificate in the Foundations of Science introduces students to the foundations of scientific thought and equips students with knowledge and experience that provide a basis for postsecondary studies in science and related fields. As a one-year program at the introductory level, the Certificate in the Foundations of Science is suited to those students who have educational and career goals that do not necessarily lead to, or require, a Bachelor's Degree or Diploma in Science.

A maximum of 9 credit hours of eligible transfer credit may be used to meet the program requirements of 30 credit hours.

Students who have earned a previous degree or two-year diploma in Science or Engineering at a Canadian post-secondary institution, or who have completed the requirements to graduate with a bachelor's degree (or higher) in Science or Engineering are not eligible to graduate with a Certificate in the Foundations of Science.

The Certificate in Foundations of Science is a stackable credential: courses used to complete the Certificate in the Foundations of Science may be used subsequently to fulfill the requirements of the Diploma in General Science or any Bachelor of Science program offered by the Faculty of Science.

Credit hours	Certificate in the Foundations of Science
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	ENGL 100
3.0	BIOL 100 or 101
3.0	CHEM 104
3.0	CS 110
3.0	GEOL 102
3.0	MATH 103 or 110
3.0	PHYS 109
6.0	Any two electives from Arts, La Cité, Media, Art, and Performance, or Science*
3.0	Open elective*
30.0	Total: 65.00% PGPA and 60.00% UGPA

<sup>\*</sup>From any Faculty, including Science. The Faculty of Science encourages students to include INDG 100 (Indigenous Studies) or ENVS 100 (Indigenous Environmental Science) for their electives.

### Diploma in General Science

The Diploma in General Science is designed to introduce students to the methods and values of scientific inquiry. It encourages students to identify a field of study that interests them and to develop a deeper understanding of that field.

Eligibility requires that students complete courses representative of core science competencies and a concentration of courses in a particular field of study offered by the Faculty of Science. A maximum of 30 credit hours of eligible transfer credit may be used to meet the program requirements, and transfer credit may not be used to meet greater than half of the credits required to complete the concentration. (At least half of the credits used to meet the concentration requirements and program requirements must be completed at the University of Regina, as outlined in the Faculty of Science Residency Requirements).

Students who have earned a previous degree in Science or Engineering at a Canadian post-secondary institution, or who have completed the requirements to graduate with a bachelor's degree (or higher) in Science or Engineering are not eligible to graduate with a Diploma in General Science.

The Diploma in General Science is a laddering credential: courses used to complete the Diploma in General Science may be used subsequently to fulfill the requirements of any Bachelor of Science program offered by the Faculty of Science.

Credit hours	Diploma in General Science
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	BIOL 100
3.0	BIOL 101
3.0	CHEM 104
3.0	CHEM 105 or 140
3.0	CS 110
3.0	ENGL 100
3.0	ENGL 110
3.0	GEOL 102
3.0	MATH 103 or 110
3.0	MATH 111 or 112
3.0	PHYS 109 or 111
3.0	PHYS 119 or 112
3.0	STAT 100 or 160
12.0 – 18.0	Completion of a Concentration in Science* Options include: Biology, Biochemistry, Chemistry, Environmental Geoscience, Geology, Indigenous Knowledge and Science, Applied Mathematics, Pure Mathematics, Statistics, Physics
3.0	One Arts, La Cité, or Media, Art, and Performance course**
0.0-6.0	Science, Arts, La Cité, or Media, Art, and Performance course(s)
60.0	Total: 65.00% PGPA and 60.00% UGPA and a 65.00% average in the Concentration (minor).

<sup>\*</sup>For the purposes of the Diploma in General Science, requirements for a Concentration in Science corresponds with the Minor requirements outlined in the Department section for each discipline.

<sup>\*\*</sup> The Faculty of Science encourages students to include INDG 100 (Indigenous Studies) or ENVS 100 (Indigenous Environmental Science) for their electives.

### 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

The Department of Biology offers the following academic programs, described below.

### **Approved Courses Lists**

List A: Cellular and Molecular Biology Concentration BIOL 302, 303, 310, 366, 390, 395, 405, 406, 407, 410, up to two of BIOC 221, 3xx or 4xx.
List B: Ecology and Environmental Biology Concentration BIOL 302, 316, 335, 341 (or STAT 342), 356, 365, 366, 367, 375, 376, 380, 385, 425, 456, 457, 463, 485
List C: Environmental Biology BIOL 316, 335, 341 (or STAT 342), 356, 365, 367, 376, 380, 385, 402, 456, 457, 463, 485

### BSc in Biology

Credit hours	BSc in Biology Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 BIOC 220
3.0	BIOL 288
0.0	BIOL 488 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 300-, 400-level or BIOC 221 or above
3.0	BIOL 300-, 400-level or BIOC 221 or above
3.0	BIOL 300-, 400-level or STAT 342
3.0	BIOL 402
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
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT100
3.0	STAT 200
75.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
15.0	Five open electives
120.0	Total: 65.00% Program GPA required

### BSc Honours in Biology

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Biology
Credit flours	Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 BIOC 220
3.0	BIOL 288
0.0	BIOL 488 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 498
3.0	BIOL 499
3.0	BIOL 300-, 400-level or BIOC 221 or above
3.0	BIOL 300-, 400-level or BIOC 221 or above
3.0	BIOL 300-, 400-level or 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
3.0	MATH 110 and 111
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT 100
3.0	STAT 200
84.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required

# BSc in Biology, Cellular and Molecular Biology Area of Concentration

Credit hours	BSc in Biology, Cellular and Molecular Biology Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
12.0	Four courses from List A
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
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT 100
3.0	STAT 200
75.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
15.0	Five Open electives
120.0	Total: 65.00% Program GPA required

BSc Honours in Biology, Cellular and Molecular Biology Area of Concentration

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Biology, Cellular and Molecular Biology Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 498
3.0	BIOL 499
15.0	Five courses from List A
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
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT 100
3.0	STAT 200
84.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required

BSc in Biology, Ecology and Environmental Biology Area of Concentration

Credit hours	BSc with Biology, Ecology and Environmental Biology Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
15.0	Five courses from List B
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
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT 100
3.0	STAT 200
75.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance elective
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance elective
3.0	Five Open electives
120.0	Total: 65.00% Program GPA required

BSc Honours in Biology, Ecology and Environmental Biology Area of Concentration

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Biology, Ecology and Environmental Biology Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 498
3.0	BIOL 499
18.0	Six courses from List B.
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
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	STAT 100
3.0	STAT 200
84.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required

BSc Combined Major in Biology and Geography

This program was suspended as of May 1, 2021. Students have until April 30, 2025 to complete the program.

### BSc in Environmental Biology

(Joint Program with Saskatchewan Polytechnic and 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 60.00% 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 the faculty <u>Time Limits</u>, <u>Graduation Requirements</u>, and <u>Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Environmental Biology University of Regina Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
3.0	BIOL 100
3.0	BIOL 101
3.0	BIOL 205
0.0	BIOL 488 (term 1)
0.0	BIOL 488 (term 2)
9.0	Three courses from List C.
3.0	CHEM 104
3.0	CHEM 140
3.0	GES 121
3.0	GES 200
3.0	GES 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	One Arts, La Cité, or Media, Art, and Performance elective
9.0	Three Science, Arts, La Cité, or Media, Art, and Performance electives
60.0	Subtotal: 65.00% U of R GPA required
120.0	Total

### BSc Honours in Environmental Biology (Joint Program with Saskatchewan Polytechnic and 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 in Integrated Resource Management from Saskatchewan Polytechnic, or the Diploma in Renewable Resource Management from Lethbridge College with a minimum 60.00% 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 credit hours of block transfer credit toward this degree program.

Credit hours	BSc Honours in Environmental Biology (University of Regina) Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	BIOL 100
3.0	BIOL 101
3.0	BIOL 205
0.0	BIOL 488 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 498
3.0	BIOL 499
15.0	Five courses from List C.
3.0	CHEM 104
3.0	CHEM 140
3.0	GES 121
3.0	GES 200
3.0	GES 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	One Arts, La Cité, or Media, Art, and Performance elective
9.0	Three Science, Arts, La Cité, or Media, Art, and Performance electives
72.0	Subtotal: 70.00% U of R GPA required
132.0	Total

### 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 60.00% 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 hours of block transfer credit toward this degree program.

Credit hours	BSc in Environmental Biology (U of R) Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
9.0	Three courses from List C.
3.0	GES 121
3.0	GES 200
3.0	GES 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
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
60.0	Subtotal: 65.00% U of R GPA required
120.0	Total

## 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 60.00% 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 hours of block transfer credit toward this degree program.

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Environmental Biology (U of R) Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 (term 1)
0.0	BIOL 488 (term 2)
3.0	BIOL 498
3.0	BIOL 499
15.0	Five courses from List C.
3.0	GES 121
3.0	EGES 200
3.0	GES 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
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
72.0	Subtotal: 70.00% U of R GPA required
132.0	Total

### Minor in Biology

Credit hours	Minor in Biology Required Courses
3.0	BIOL 100
3.0	BIOL 101
12.0	Four courses in BIOL at the 200-, 300- or 400-level
18.0	Subtotal: 65.00% Minor GPA required

### 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

### BSc in Biochemistry

Credit hours	BSc with Biochemistry Required Courses
	SCI 099: this course must be completed during a stu-
0.0	dent's first term in the Faculty of Science
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 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 224, 266, or 378
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
75.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance elective
9.0	Three Science electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required

### BSc Honours in Biochemistry

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

BSc Honours in Biochemistry	
Credit hours	Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 224, 266, or 378
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
81.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
9.0	Three Science electives
12.0	Four Open electives
120.0	Total: 70.00% Program GPA required

### BSc in Chemistry

Credit hours	BSc in Chemistry Required Courses
0.0	SCI 099: this course must be completed during a stu-
	dent's first term in the Faculty of Science
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 Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
12.0	Four Science electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required

### BSc Honours in Chemistry

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Chemistry Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
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 300- or 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 Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Science electives
15.0	Five Open electives
120.0	Total: 70.00% Program GPA required

### 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 60.00%.

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Students meeting admission requirements will be granted 60 credit hours of block transfer credit toward this degree program.

Credit hours	BSc in Chemical Technology
Create flours	(University of Regina) Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Science, Arts, La Cité, or Media, Art, and Performance electives
60.0	Subtotal: 65.00% U of R GPA required
120.0	Total

### Minor in Biochemistry

Credit hours	Minor in Biochemistry Required Courses
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 level
24.0	Subtotal: 65.00% Minor GPA required

### Minor in Chemistry

Credit hours	Minor in Chemistry Required Courses
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
24.0	Subtotal: 65.00% Minor GPA required

### 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

### Diploma in Computer Science (DipCS)

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 off-campus students, as well as in the traditional day slots.

Students who hold a previous credential consisting of 60.0 credit hours or more (or equivalent to at least a 2-year program) in Computer Science, Computer Engineering, or a related discipline, may not enroll in the Diploma in Computer Science, except with special permission of the faculty.

Students must meet "fully qualified" Science admissions status to enroll in the Diploma in Computer Science.

Credit hours	Diploma in Computer Science Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 110*
3.0	CS 115*
3.0	CS 201
3.0	CS 210*
3.0	CS 215
3.0	CS 200-, 300- or 400-level
3.0	CS 300- or 400-level
3.0	CS 300- or 400-level
3.0	CS 300- or 400-level
3.0	MATH 110
3.0	ENGL 100
33.0	Subtotal: Major Requirements 65.00% Major GPA required
27.0	Nine Electives Courses in mathematics and statistics, economics, and administration are recommended.
60.0	Total: 65.00% Program GPA required
*Or equivalent of proval.	experience. Students must contact the Department Head for ap-

### BSc in Computer Science

Credit hours	BSc in Computer Science Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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)
690	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
15.0	Five Science, Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Open electives
6.0	Two Open electives *these courses cannot be from the subjects of CS, Math, Stats or ACSC
120.0	Total: 65.00% Program GPA required

### **BSc Honours in Computer Science**

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Consulta to a	BSc Honours in Computer Science
Credit hours	Required Courses
0.0	SCI 099: this course must be completed during a student's
0.0	first term in the Faculty of Science
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 400-level (not MATH 261)
3.0	Any CS 200-, 300-, or 400-level (not MATH 261)
9.0	Three CS 400-level courses
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 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance elective
6.0	Two Natural Science electives
3.0	One Science, Arts, La Cité, or Media, Art, and Performance elective
6.0	Two Open electives
6.0	Two Open electives *these courses cannot be from the subjects of CS, Math, Stats or ACSC
120.0	Total: 70.00% Program GPA required

BSc Combined Major in Computer Science and Mathematics

	BSc Combined Major in Computer Science and
Credit hours	Mathematics Required Courses
0.0	SCI 099: this course must be completed during a student's
0.0	first term in the Faculty of Science
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 or 200
3.0	
3.0	Three courses from: MATH 301, 322, 323, 329, 381; CS
3.0	350, 410, 411, 412
75.0	Subtotal: 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
	Four Arts, La Cité, or Media, Art, and Performance elec-
12.0	tives
6.0	Two Natural Science electives
6.0	Two Science, Arts, La Cité, or Media, Art, and Performance
6.0	electives
15.0	Five Open electives
120.0	Total: 65.00% Program GPA required

# BSc Honours Combined Major in Computer Science and Mathematics

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

	BSc Honours Combined Major in Computer Science and
Credit hours	Mathematics
	Required Courses  SCI 099: this course must be completed during a student's
0.0	first term in the Faculty of Science
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
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: MATH 322, 323, 329, 427; CS 410, 411
3.0	1 WO COURSES HOIII. WIATH 322, 323, 323, 427, 63 410, 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 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
6.0	Two Open electives
120.0	Total: 70.00% Program GPA required

### BSc in Data Science

Credit hours	BSc in Data Science Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 110
3.0	CS 115
3.0	CS 165 or STAT 165
3.0	CS 210
3.0	CS 215
3.0	CS 265
3.0	CS 280
3.0	CS 261 or MATH 261
3.0	CS 310
3.0	CS 320
3.0	CS 340
3.0	CS 375
3.0	CS 412
3.0	CS 465
3.0	MATH 110
3.0	MATH 111
3.0	MATH 122
3.0	MATH 221
3.0	STAT 160
3.0	STAT 251
3.0	STAT 252
3.0	STAT 300
3.0	STAT 301
3.0	STAT 354
3.0	STAT 418
9.0	Three MATH, STAT, or CS courses at the 300-level or higher.
3.0	CS 496 or STAT 496
87.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Natural Science electives
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
9.0	Three Open electives
120.0	Total: 65.00% Program GPA required

### BSc in Software Systems Development

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Software Systems Development Required Courses
cicuit ilouis	SCI 099: this course must be completed during a student's
0.0	first term in the Faculty of Science
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 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 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 351
3.0	STAT 160 or 200
3.0	PHYS 109 and 119 or
3.0	PHYS 111 and 112
3.0	BUS 260
3.0	BUS 302
3.0	ECON 100, 201 or 202
99.0	Subtotal: 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
9.0	Three Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Open electives
120.0	Total: 65.00% Program GPA required

### Post-Diploma BSc in Computer Science

This program is available to graduates of the two-year diploma programs in Computer Systems Technology and Business 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 the Admissions section for additional important information.

Post-Diploma BSc in Computer Science	
60.0 hours of block transfer credit	Diploma in Computer Systems Technology or Business Information Systems from Saskatchewan Poly- technic
Credit hours	Major in Computer Science (University of Regina) Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 215
3.0	CS 301
3.0	CS 310
3.0	CS 320
3.0	CS 340
3.0	One course from: CS 261, 350, 410, 412, 428
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	MATH or STAT course above 200 (except for 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 Performance elective
3.0	Arts, or Media, Art, and Performance elective
60.0	Subtotal: 65.00% U of R GPA required
120.0	Total

# BSc in Computer Science, Business Area of Concentration

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Computer Science, Business Area of Concentration Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 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 116
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
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
99.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Natural Science electives
9.0	Three Science, Arts, La Cité, or Media, Art, and Performance electives
120.0	Total: 65.00% Program GPA required

# BSc in Computer Science, Creative Technologies Concentration

Credit hours	BSc in Computer Science with Creative Technologies Concentration Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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
9.0	Three of: CS 301, 310, 330, 335, 372
3.0	CS 315
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	CTCH 111
3.0	CTCH 203
3.0	FILM 220
3.0	CTCH 204
3.0	CTCH 300- or 400-level from list available at the MAP and Science Advising Offices
3.0	CTCH 300- or 400-level from list available at the MAP and Science Advising Offices
3.0	PSYC 101 or 102
3.0	ENGL 251
99.0	Subtotal: 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Natural Science electives
6.0	Two Open electives
3.0	CTCH 499
120.0	Total: 65.00% Program GPA required

<sup>\*</sup>It is highly recommended that fourth year CS electives be related to creative technology, such as CS 405, CS 408, CS 409, CS 425, CS 427, CS 455.

### Minor in Computer Science

Credit hours	Minor in Computer Science Required Courses
3.0	CS course any level
3.0	CS 300- or 400-level
3.0	CS 300- or 400-level
18.0	Subtotal: 65.00% Minor GPA required

### 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.

Faculty of Science students interested in completing the Minor in Creative Technologies should refer to the minor template in the Media, Art, and Performance section of the calendar.

planning an honours program should consult with the head of the Economics Department.

### BSc in Economics

Credit hours	BSc in Economics Required Courses
Credit flours	SCI 099: this course must be completed during a student's
0.0	first term in the Faculty of Science
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 307
	ECON 310
3.0	
3.0	ECON 321
3.0	ECON 322
3.0	Two STAT courses above 200 or two MATH courses above
3.0	110
3.0	ECON any level
3.0	ECON any level
3.0	ECON 300- or 400-level
3.0	CS 110
3.0	MATH 103 or 110
48.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance elec-
12.0	tives
6.0	Two Natural Science electives
12.0	Four Science electives
18.0	Six Science, Arts, La Cité, or Media, Art, and Performance
18.0	elective
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required

### Bachelor of Science Programs in Economics

Refer to the <u>Department of Economics</u> section for more information. Courses within the major requirements in Economics are considered Science courses only for the purposes of these programs. Students

#### **BSc Honours in Economics**

Credit hours	BSc Honours in Economics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	ECON 201
3.0	ECON 202
3.0	ECON 224
3.0	ECON 301
3.0	ECON 302
3.0	ECON 307
3.0	ECON 310
3.0	ECON 321
3.0	ECON 322
6.0	Two of: ECON 280, 311, 341, 353, 354, 361, 363, 364, 372, 373
3.0	ECON 401
3.0	ECON 402
3.0	ECON 480 (with a grade of at least 75.00%)
3.0	ECON 499
6.0	Two STAT courses above 200 or two MATH courses above 110
3.0	STAT 160 or STAT 200
3.0	CS 110
3.0	MATH 103 or 110
60.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
6.0	Two Science electives (not ECON)
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required

## 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, La Cité, or Media, Art, and Performance. The BSc Combined Major in Statistics and Economics program template is listed under the <a href="Department of Mathematics and Statistics">Department of Mathematics and Statistics</a>.

It is recommended that students seek academic advising from the Department of Mathematics and Statistics or from the Department of Economics.

# Bachelor of Science Programs in Geography and Environmental Studies

### **Academic Programs**

The Department offers the following programs, described below.

Refer to the Faculty of Arts <u>Department of Geography and Environmental Studies section</u> for more information. Courses within the major requirements in geography and environmental studies are considered Science courses only for the purposes of these programs. Students planning an honours program should consult with the head of the Geography and Environmental Studies Department.

### BSc in Geography and Environmental Studies

Students currently in the BSc in Geography program will have until April 30, 2025 to complete the program or transfer into the new Geography and Environmental Studies program.

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the BSc sections for additional important information.

Credit hours	BSc in Geography and Environmental Studies Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	GES 120
3.0	GES 121
9.0	Three courses from GES 203, 207, 297 AA-ZZ, GES 200
9.0	Three GES courses at the 200-, 300-, or 400-level
15.0	Five additional courses from GES 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	GES 400-level
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 Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
9.0	Three Science electives
18.0	Six Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required

### BSc Honours in Geography and Environmental Studies

Students currently in the BSc Honours in Geography program will have until April 30, 2025 to complete the program or transfer into the new Geography and Environmental Studies program.

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc Honours in Geography Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	GES 120
3.0	GES 121
9.0	Three courses from GES 203, 207, 297AA-ZZ, GES 200
3.0	
3.0	Any three GES courses at the 200-, 300-, or 400-level
3.0	
15.0	Five courses from GES 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	GES 400-level
3.0	GES 400-level
6.0	GES 499 (499AC or both 499AA and 499BB)
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 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Science electives
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required

### 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 <a href="https://www.apegs.ca">www.apegs.ca</a>.

### Department of Geology

CW 230 University of Regina Regina, SK S4S 0A2

Tel: 306-585-4147; Fax: 306-585-5433 Website: <a href="https://www.uregina.ca/science/geology">www.uregina.ca/science/geology</a>

### **Academic Programs**

The Department offers the following programs. Students planning an honours program should consult with the Geology Department Head.

### BSc in Geology

Credit hours	BSc in Geology Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 and 400AB, for 3 credit hours each, or 400AC for 6 credit hours)
3.0	GEOL 400 or higher (400AA and 400AB, for 3 credit hours each, or 400AC for 6 credit hours)
3.0	GEOL 400 or higher (400AA and 400AB, for 3 credit hours each, or 400AC for 6 credit hours)
3.0	CHEM 104
3.0	CHEM 105
3.0	CS 110
3.0	GES 323
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	Science elective* (APEGS approved)
3.0	Science elective* (APEGS approved)
84.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
3.0	One Science, Arts, La Cité, or Media, Art, and Performance elective
15.0	Five Open electives
120.0	Total: 65.00% Program GPA required

### BSc Honours in Geology

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Students planning an honours program should consult with the Department Head.

Credit hours	BSc Honours in Geology Required Courses
0.0	SCI 099: this course must be completed during a student's
2.0	first term in the Faculty of Science
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 (or GEOL 400AA and GEOL 400AB)
3.0	GEOL 453
3.0	GEOL 496
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	GES 323
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	Science elective* (APEGS approved)
3.0	Science elective* (APEGS approved)
87.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
15.0	Five Open electives
120.0	Total: 70.00% Program GPA required

### BSc in Environmental Geoscience

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

.Credit hours	BSc in Environmental Geoscience Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	GEOL 102
3.0	GEOL 201
3.0	GEOL 210
3.0	GEOL 211
3.0	GEOL 240
3.0	GEOL 241, GEOL 270, or GES 207
3.0	GEOL 307
3.0	GEOL 314
3.0	GEOL 329 or GES 329
3.0	GEOL 353
3.0	GEOL 396 or GES 411
3.0	GEOL 460
3.0	GES 121
3.0	GES 203
3.0	GES 323
3.0	GES 327
3.0	ONE of: GEOL 340, GES 303, 309, 321, 333, 325, 327, BIOL 356, ENEV 321, 322, 334, 363, or 384*
6.0	TWO of: GEOL 400AA. 400AB, 400AC, 414, 416, 429, 430, 451, 453, 454, 470, 472, 473, 476, 490AH, 496, GES 421, 423, 429, 431, 499AA 499AB, 499AC, BIOL 456, ENEV 422, 440, or 480*
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
3.0	One Science elective (APEGS approved)
3.0	ONE of: INDG 100, 104, 200, 201, 236, ENVS 100, 200, ANTH 241AK, GES 344, 396AI, BIOC 200, RLST 290AN, ADMN 436AM or other course with core indigenous component
87.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
3.0	One Science, Arts, La Cité, or Media, Art, and Performance elective
3.0	One Science elective
9.0	Three Open electives
120.0	Total: 65.00% Program GPA required
*In order to a	ualify for APEGS registration, these three courses must be APEGS

 $\ensuremath{^{*}}$  In order to qualify for APEGS registration, these three courses must be APEGS accepted

### BSc Honours in Environmental Geoscience

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Students planning an honours program should consult with the Geology Department Head.

	BSc Honours in Environmental Geoscience
Credit hours	Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	GEOL 102
3.0	GEOL 201
3.0	GEOL 210
3.0	GEOL 211
3.0	GEOL 240
3.0	GEOL 241, GEOL 270, or GES 207
3.0	GEOL 307
3.0	GEOL 314
3.0	GEOL 329 or GES 329
3.0	GEOL 353
3.0	GEOL 396 or GES 411
6.0	GEOL 400AC (or GEOL 400AA and 400AB), or GES 499AC (or GES 499AA and 499AB)
3.0	GEOL 413 or higher; or GES 409 or higher
3.0	GEOL 460
3.0	GES 121
3.0	GES 203
3.0	GES 323
3.0	GES 327
3.0	ONE of: GEOL 340, GES 303, 309, 321, 333, 325, 327, BIOL 356, ENEV 321, 322, 334, 363, or 384*
6.0	TWO of: GEOL 414, 416, 429, 430, 452, 453, 454, 470, 472, 473, 476, 490AH, 496, GES 421, 423, 429, 431, BIOL 456, ENEV 422, 440, or 480*
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
3.0	One Science elective (APEGS approved)
3.0	ONE of: INDG 100, 104, 200, 201, 236, ENVS 100, 200, ANTH 241AK, GES 344, 396AI, BIOC 200, RLST 290AN, ADMN 436AM or other course with core Indigenous component.
96.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives

Credit hours	BSc Honours in Environmental Geoscience Required Courses
3.0	One Science elective
3.0	One Open elective
120.0	Total: 70.00% Program GPA required
*In order to qualify for APEGS registration, these three courses must be APEGS accepted	

### Minor in Geology

Credit hours	Minor in Geology Required Courses
3.0	GEOL 102
3.0	GEOL 201
3.0	GEOL 240
9.0	Three GEOL courses at any level
18.0	Subtotal: 65.00% Minor GPA required

### Minor in Environmental Geoscience

Credit hours	Minor in Environmental Geoscience Required Courses
3.0	GEOL 102
3.0	GEOL 201
6.0	Two GEOL courses at any level
6.0	Two of GES 300- or 400-level, GEOL 300- or 400-level, BIOL 356, 456, or ENEV 321, 322, 334
18.0	Subtotal: 65.00% Minor GPA required

\*Note: Students eligible for a Science minor (or concentration) may choose to complete the minor (or concentration) in Environmental Geoscience or in Geology, but not both.

## 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: <a href="www.apegs.sk.ca">www.apegs.sk.ca</a>.

### 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

### BSc in Data Science

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Data Science Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 110
3.0	CS 115
3.0	CS 165 or STAT 165
3.0	CS 210
3.0	CS 215
3.0	CS 265
3.0	CS 280
3.0	CS 261 or MATH 261
3.0	CS 310
3.0	CS 320
3.0	CS 340
3.0	CS 375
3.0	CS 412
3.0	CS 465
3.0	MATH 110
3.0	MATH 111
3.0	MATH 122
3.0	MATH 221
3.0	STAT 160
3.0	STAT 251
3.0	STAT 252
3.0	STAT 300
3.0	STAT 301
3.0	STAT 354
3.0	STAT 418
9.0	Three MATH, STAT, or CS courses at the 300-level or higher.
3.0	CS 496 or STAT 496
87.0	Subtotal: Major Requirements, 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Natural Science electives
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
9.0	Three Open electives
120.0	Total: 65.00% Program GPA required

### **BSc** in Mathematics

Credit hours	BSc in Mathematics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 251 or STAT 251
3.0	MATH or STAT above 250 or ACSC any level
3.0	CS 110
51.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
15.0	Five Science electives
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required

### **BSc Honours in Mathematics**

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

. All students in an honours program should consult with the head of the department.

Credit hours	Honours BSc in Mathematics Required Courses
0.0	SCI 099: this course must be completed during a student's
	first term in the Faculty of Science
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 251 or STAT 251
21.0	Seven courses in MATH at the 200-, 300-, or 400-level
0.0	MATH 497
0.0	MATH 498
3.0	MATH 400-level
3.0	MATH 400-level
3.0	CS 110
3.0	STAT 160
72.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
9.0	Three Science electives
15.0	Five Open electives
120.0	Total: 70.00% Program GPA required

BSc and BSc Honours with Combined Major in Computer Science and Mathematics

Please see the <u>Department of Computer Science</u> section of the Calendar for information concerning this program.

### BSc with Major in Applied Mathematics and Statistics

Credit hours	BSc with Major in Applied Mathematics and Statistics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 STAT 300- or 400-level
3.0	MATH 300- or 400-level, or STAT 300- or 400-level
3.0	MATH 300- or 400-level, or STAT 300- or 400-level
3.0	MATH 400-level or STAT 400-level
3.0	CS 110
3.0	CS 261 or MATH 261
63.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
9.0	Three Science electives
6.0	Two Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 65.00% program GPA required

### **BSc** in Statistics

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Statistics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 110
3.0	CS 115
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 300
3.0	STAT 351
3.0	STAT 354
3.0	STAT 357
3.0	STAT 452
3.0	STAT 485
12.0	Four STAT courses at the 300- or 400-level
51.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
9.0	Three Science electives
15.0	Five Science, Arts, La Cité, or Media, Art, and Performance electives
15.0	Five Open electives
120.0	Total: 65.00% Program GPA required

### **BSc Honours in Statistics**

Credit hours	BSc Honours in Statistics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	CS 110
3.0	CS 115
3.0	CS 265
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/CS 261
3.0	STAT 160
3.0	STAT/CS 165
3.0	STAT 251
3.0	STAT 252
3.0	STAT 300
3.0	STAT 301
3.0	STAT 351
3.0	STAT 354
3.0	STAT 357
3.0	STAT 362
3.0	STAT 452
3.0	STAT 489
6.0	Two STAT courses at the 200-, 300- or, 400-level
9.0	Three STAT courses at the 400-level
0.0	STAT 497
0.0	STAT 498
81.0	Subtotal: Major Requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Natural Science electives
6.0	Two Science electives
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
9.0	Three Open electives
120.0	Total: 70.00% Program GPA required

BSc with Combined Major in Statistics and Economics

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section 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. For more information refer to the Department of Economics.

Credit hours	BSc Combined Major in Statistics and Economics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 300-or 400-level
3.0	STAT 300-or 400-level
3.0	STAT 300-or 400-level
3.0	MATH 200-, 300- or 400-level; STAT 200-, 300-or 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 307

Credit hours	BSc Combined Major in Statistics and Economics Required Courses
3.0	ECON 310
3.0	ECON 321
3.0	ECON 322
3.0	ECON any level
3.0	ECON any level
3.0	CS 110
72.0	Subtotal: 65.00% major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
18.0	Six Science electives
6.0	Two Open electives
120.0	Total: 65.00% program GPA required

### Certificate in Statistics

Credit hours	Certificate in Statistics Required Courses
0.0	SCI 099: this course must be completed during a stu- dent's first term in the Faculty of Science
3.0	CS 110
3.0	MATH 110
3.0	MATH 111
3.0	MATH 122
3.0	STAT 160
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
30.0	Total 65.00% GPA required

Note: Due to the prerequisite structure of the Certificate in Statistics, completion of the listed courses will require a minimum of four terms

### BSc in Actuarial Science

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

By completing four internships (ACSC 041, 042, 043 and 044) and 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 Department Head.

Credit hours	BSc in Actuarial Science Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	MATH 110
3.0	MATH 111
3.0	MATH 122
3.0	MATH 213
3.0	CS 261 or 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- or 400-level
3.0	ACSC 116 or MATH 116
3.0	ACSC 216 or MATH 216
3.0	ACSC 217 or STAT 217
3.0	ACSC 316 or MATH 316
3.0	ACSC 317 or STAT 317
3.0	ACSC 318 or STAT 318
3.0	ACSC 417
3.0	ACSC 418 or STAT 418
3.0	ACSC 419
3.0	ACSC 456 or STAT 456
3.0	ECON 201
3.0	ECON 202
3.0	BUS 285
3.0	BUS 395
3.0	CS 110
78.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
6.0	Two Arts, La Cité, or Media, Art, and Performance electives
6.0	Two Natural Science electives
9.0	Three Science electives (Not ACSC)
3.0	One Science, Arts, La Cité, or Media, Art, and Performance elective
12.0	Four Open electives
120.0	Total: 65.00% Program GPA required

### Minor in Applied Mathematics

Refer to faculty's  $\underline{\text{Optional Minor}}$  section for additional important information.

Credit hours	Minor in Applied Mathematics Required Courses
3.0	MATH 213
3.0	MATH 222
3.0	MATH 261
3.0	MATH 312
3.0	Two of MATH 322, 327, 329, 361, or 381
3.0	
18.0	Subtotal

### Minor in Pure Mathematics

Refer to faculty's <u>Optional Minor</u> section for additional important information.

Credit hours	Minor in Pure Mathematics Required Courses
3.0	MATH 213
3.0	MATH 221
3.0	MATH 223
3.0	MATH 305
3.0	Two of MATH 312, 313, 321, 323, 381
3.0	
18.0	Subtotal

### Minor in Statistics

Refer to faculty's  $\underline{\text{Optional Minor}}$  section for additional important information.

Credit hours	Minor in Statistics Required Courses
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 386
18.0	Subtotal

### Department of Physics

LB 226

University of Regina Regina, SK S4S 0A2

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**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.

### BSc in Physics

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSC in Physics Required Courses
0.0	SCI 099: this course must be completed during a student's
	first term in the Faculty of Science
3.0	PHYS 111
3.0	PHYS 112
3.0	PHYS 201
3.0	PHYS 202
3.0	PHYS 242
3.0	PHYS 251
3.0	PHYS 261
3.0	PHYS 301
3.0	PHYS 311
3.0	PHYS 342
3.0	PHYS 372
9.0	Three of PHYS 300-level, 401, 421, 432, or ASTR 300-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
3.0	MATH 217
66.0	Subtotal: Major Requirements 65.00% Major GPA
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA

### **BSc Honours in Physics**

Refer to the faculty <u>Time Limits</u>, <u>Graduation Requirements</u>, <u>and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information. Students planning an honours program should consult with the Department Head.

Credit hours	BSc Honours in Physics Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
3.0	PHYS 111
3.0	PHYS 112
3.0	PHYS 201
3.0	PHYS 202
3.0	PHYS 242
3.0	PHYS 251
3.0	PHYS 261
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
0.0	PHYS 498
3.0	PHYS 499
3.0	PHYS 421, 432 or 442
3.0	PHYS 421, 432 or 442
3.0	GEOL 460, PHYS 300-level or 400-level, or ASTR 300-level
3.0	GEOL 460, PHYS 300-level or 400-level, or ASTR 300-level
3.0	GEOL 460, PHYS 300-level or 400-level, or ASTR 300-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
3.0	MATH 217
3.0	MATH 312
90.0	Subtotal: Major requirements 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
12.0	Four Open electives
120.0	Total: 70.00% Program GPA required

### BSc in Applied Physics

Refer to the faculty <u>Time Limits, Graduation Requirements, and Conferral of Degrees</u> and the <u>Academic Program General Information</u> section for additional important information.

Credit hours	BSc in Applied Physics
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 251
3.0	PHYS 261
3.0	PHYS 301
3.0	PHYS 311
3.0	PHYS 342
3.0	PHYS 372
0.0	PHYS 498
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
9.0	Three of PHYS 300-level, 401, 421, 432, or ASTR 300-level
69.0	Subtotal: Major Requirements 70.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
3.0	PHYS 300- or 400-level
3.0	One *Approved CS elective
27.0	Nine *Approved electives
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
120.0	Total: 65.00% Program GPA required

### \*Approved Electives for BSc in Applied Physics

\*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

Computer Science (CS) Electives (maximum 6 courses)

- CS 201 Intro Digital Systems
- CS 210 Data Structures
- CS 215 Web Programming
- CS 261, Math 261- Methods of Numerical Analysis
- 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 courses)

- ENEL 280 DC Circuits
- ENEL 281 or ENIN 233 Signals, Circuits and Systems
- ENEL 282 Semiconductor Devices
- 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

#### **Physics Electives**

• PHYS 300- or 400-level

### Minor in Physics

Students are responsible for ensuring they have the proper pre-requisites for the classes they take. Any combination of the following may count as a Physics Minor.

Credit hours	Minor in Physics Required Courses
3.0	PHYS any level (Except 140 or 142)
3.0	PHYS any level (Except 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, or ASTR 300-level
18.0	Subtotal: 65.00% Program GPA required

### Programs in Psychology

Refer to the <u>Department of Psychology</u> section 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.

### BSc in Psychology

Credit hours	BSc in Psychology Required Courses
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 <sup>1</sup>
12.0	Four PSYC 300- or 400-level courses
Cognate Courses	
3.0	MATH 103 or 110
3.0	BIOL 100
3.0	BIOL 101
3.0	CHEM 104
3.0	CS 110
54.0	Subtotal: Major Requirements 65.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six courses from: BIOC 220, BIOL 201, 205, 288, 305, 378, 380, 390, 395, CHEM 140, 241, CS 115, 210, 215, 305, 315, 320, 325, 327, MATH 111, 122, PHYS 109, 119, or 319
12.0	Four Science, Arts, La Cité, or Media, Art, and Performance electives
18.0	Six Open electives
120.0	Total: 65.00% Program GPA required
<sup>1</sup> STAT 100 and 200, or STAT 160 may be substituted for PSYC 305	

### BSc Honours in Psychology

Credit hours	BSc Honours in Psychology
0.0	SCI 099: this course must be completed during a student's first term in the Faculty of Science
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 3051
9.0	Three PSYC 300- or 400-level courses
3.0	PSYC 400-level
3.0	PSYC 400 AA
3.0	PSYC 400 AB
3.0	PSYC 405
3.0	PSYC 408
Cognate Course	es
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 75.00% Major GPA required
3.0	ENGL 100
3.0	ENGL 110
12.0	Four Arts, La Cité, or Media, Art, and Performance electives
18.0	Six courses from: BIOC 220; BIOL 201, 205, 288, 305, 378, 380, 390, 395; CHEM 140, 241; CS 115, 210, 215, 305, 315, 320, 325, 327; MATH 111, 122; PHYS 109, 119, or 319
18.0	Six Open electives
120.0	Total: 70.00% Program GPA required
<sup>1</sup> STAT 100 AND 200 or STAT 160 may be substituted for PSYC 305	