

BACHELOR OF SCIENCE

Faculty of Arts and Science

MacEwan.ca/Science (<http://MacEwan.ca/Science>)

The Bachelor of Science (B.Sc.) is a foundational general degree that provides broad and widely applicable knowledge and abilities, rather than a niche specialization. This broad base equips graduates with generalist knowledge and skills that give the flexibility and agility so highly valued in a dynamic world economy. It also gives students a solid foundation from which to specialize in future employment or further schooling.

The degree provides breadth of study across a variety of Arts and Science disciplines, and sets the foundation for later years. The major and minor areas of study allow students to focus and gain in-depth expertise in complementary or entirely disparate disciplines; there is a wide array of possible combinations. Finally, options allow students to explore courses outside their disciplines, or even within their program, and so enhance their diversity of learning. The small classes, close interaction between instructors and students, opportunities for individual study, and faculty with a strong focus on teaching are signature strengths of this program.

Science Disciplines

Discipline	Major	Minor	Honours
Applied Statistics	●	-	-
Biological Sciences	●	●	●
Chemistry	-	●	-
Computer Science	●	●	-
Earth and Planetary Sciences	-	●	-
Mathematics	●	●	●
Mathematical Sciences	●	-	-
Planetary Physics	-	●	-
Physical Sciences	●	-	-
Physics	-	●	-
Psychology	●	●	●
Statistics	-	●	-

Arts Disciplines

See Bachelor of Arts program of study for more details.

Discipline	Minor
Anthropology	●
Classics	●
Creative Writing	●
Economics	●
English	●
French	●
Gender Studies	●
History	●

Philosophy	●
Political Science	●
Sociology	●
Spanish	●

Out of Faculty Minors

See Bachelor of Arts program of study for more details.

Discipline	Minor
Accounting Minor for Arts and Science	●
Arts and Cultural Management	●
Business Law	●
Business Studies	●
Digital Experience Design	●
Finance Minor for Arts and Science	●
Human Resources Minor for Arts and Science	●
Marketing Minor for Arts and Science	●

General Program Information

The B.Sc. requires students to complete 120 credits of non-duplicative coursework. The B.Sc. emphasizes both breadth and depth and has been redesigned for exceptional flexibility and customization. Students can now complete a major and a minor, a double major, or a major and two minors.

Transferability

All courses completed within the Bachelor of Science degree are credit courses and may be transferable individually toward further study at other Alberta institutions. For current, detailed information on individual course transferability, refer to the Learner Pathways System at www.transferalberta.ca (<http://www.transferalberta.ca>) or contact the receiving institution directly.

Preparing for Professional Studies

Students intending to enter professional programs at other universities can take their pre-professional programs in the Faculty of Arts and Science at MacEwan University. The university offers the first and second year of a number of pre-professional programs, including chiropractic medicine, dental hygiene, dentistry, medical laboratory science, medicine, optometry, pharmacy and veterinary medicine. All courses taken in these pre-professional programs are credit courses and, as such, they may be applied to any of the degrees offered by MacEwan University.

Students are advised to consult the admissions requirements for the universities and programs of their choice, and to select their MacEwan University courses accordingly. Completion of pre-professional courses at MacEwan University does not guarantee admission to the subsequent professional program. Each professional program requires a separate application and entry is competitive, not automatic.

Contact Information

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E: artsandscience@macewan.ca

Categories of Admission

Applicants may be admitted to one of the following:

Regular Admission

To be evaluated through the Office of the University Registrar

Applicants must have a minimum overall average of 65 percent, with no course grade lower than 50 percent, in the following high school courses:

1. ELA 30-1
2. Mathematics 30-1
3. Two of Biology 30, Chemistry 30, Mathematics 31, Physics 30, or Computing Science-Advanced Career and Technology Studies (5 credits)
4. One subject from Group A, B, C or D

Notes:

- A maximum of one Group D subject may be presented. Group D subjects used for admission must be 5-credit or any credit combination of at least 5 credits (e.g., two 3-credit subjects).

Applicants with nine or more university-level credits must also present a minimum Admission Grade Point Average (AGPA) of 2.0 on a 4.0 scale.

Mature Admission

To be evaluated through the Office of the University Registrar

Applicants must be 20 years of age or older and have been out of full-time high school at least one year by the beginning of the intake term. Applicants must have a minimum overall average of 60 percent, with no course grade lower than 50 percent, in the following high school courses:

1. ELA 30-1
2. Mathematics 30-1
3. Two of Biology 30, Chemistry 30, Mathematics 31, Physics 30, or Computing Science-Advanced Level Career and Technology Studies (5 credits)

Applicants with nine or more university-level credits must also present a minimum Admission Grade Point Average (AGPA) of 2.0 on a 4.0 scale.

Program of Study

Program Element	Description	Credits
Primary Major	The Science major will range from 42 to 60 credits with a minimum 36 credits taken at the senior-level. ¹	42-60
Secondary Major or Minor(s)	Students have the option of completing a second Science major, or one or two minors. Minor courses must be completed at the senior-level. ¹	18-60
Options	Students can complete up to 15 credits in out-of-faculty options, with no more than 3 credits in physical activity (PACT) courses	Up to 60
Total Degree Credits Including Breadth		120

¹ Multi-disciplinary majors consist of 60-72 junior- and senior-level credits. Students majoring in mathematical or physical sciences may pursue a minor but are not required to do so.

Previous Post-Secondary Work

To be evaluated through the Office of the University Registrar

Admission in this category does not imply or guarantee the transfer of any coursework and/or credential unless a block transfer agreement (internal or external) is in effect and published in the calendar by the Office of the University Registrar. In addition, transfer of coursework does not imply or guarantee that an applicant will be admitted.

Applicants must have successfully completed the following:

- A minimum of 24 university-level credits, from a recognized institution, with a minimum Admission Grade Point Average (AGPA) of 2.0 on a 4.0 scale.
- The required core courses listed under the Regular or Mature Admission category.

Additional Admission Criteria

All applicants must meet the following:

1. English Language Proficiency

To be evaluated through the Office of the University Registrar

Applicable to All Admission Categories

All applicants must meet an acceptable level of English language proficiency. We will require official documents such as high school or post-secondary transcripts or proof of successful completion of standardized language evaluation. Full details are available in MacEwan University's academic calendar or online at MacEwan.ca/ELP (<http://MacEwan.ca/ELP>).

2. Other Admission Criteria

To be evaluated through the Office of the University Registrar

Applicable to All Admission Categories

Applicants who have been assigned two unsatisfactory academic records within the past five years will not be considered for admission or re-admission to the program until a minimum three years from the date of the assignment of the last unsatisfactory academic record. For the purpose of admission or re-admission, an unsatisfactory record is defined as a transcript with the notation 'required to withdraw' or equivalent.

Breadth Requirements

Within the 120 credit BSc degree, students must complete the following Breadth requirements. Courses can be used both to satisfy the breadth and placed in a student's major(s), minor(s), and options. BIOL, CHEM, EASC, or PHYS courses must include a laboratory component.

Breadth Element	Description	Credits
Biological or Earth and Planetary Sciences	BIOL or EASC (not including BIOL 101, 102, or BIOL 103)	6
Chemistry or Physics	CHEM or PHYS	6
English	ENGL 102 and 3 credits in university English (not including ENGL 111 or ENGL 108)	6
Humanities	CLAS, COMP, HIST, HUMN, PHIL or a language other than English	6
Mathematical Sciences	One of MATH 114, MATH 120, or MATH 125, and 3 credits in MATH, STAT, or CMPT (not including MATH 160, MATH 170, or CMPT 104)	6
Social Sciences	ANTH, ECON, LING, POLS, PSYC, and SOCI	6

The minimum passing grade for a course at MacEwan University is a D unless otherwise noted next to the appropriate course in the program of study. Students require a minimum grade of C- to use a course as a prerequisite. Please check course description for more information.

Majors and Minors

Faculty and discipline advisors are available to assist the student to plan a program of study that will meet these degree requirements. Refer to MacEwan.ca/Science (<http://MacEwan.ca/Science>) for specific course requirements for each major and minor.

- Applied Statistics Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/applied-statistics-major>)
- Biological Sciences Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/biological-sciences-major>)
- Biological Sciences Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/biological-sciences-minor>)
- Biological Sciences Honours (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/biological-sciences-honours>)
- Chemistry Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/chemistry-minor>)
- Computer Science Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/computer-science-major>)
- Computer Science Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/computer-science-minor>)
- Earth and Planetary Sciences Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/earth-planetary-sciences-minor>)
- Mathematical Sciences Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/mathematical-sciences-major>)
- Mathematics Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/mathematics-major>)
- Mathematics Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/mathematics-minor>)
- Mathematics Honours (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/mathematics-honours>)
- Physical Sciences Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/physical-sciences-major>)
- Physics Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/physics-minor>)

- Planetary Physics Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/planetary-physics-minor>)
- Psychology Major (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/psychology-major>)
- Psychology Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/psychology-minor>)
- Psychology Honours (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/psychology-honours>)
- Statistics Minor (<https://calendar.macewan.ca/programs-study/bachelor-degrees/bachelor-science/statistics-minor>)

Bachelor of Science - Honours Information

The B.Sc. Honours provides eligible students with the opportunity to pursue more intensive study in their chosen field, which may be of benefit to students considering graduate studies. There are three Honours disciplines offered: biological sciences, mathematics, and psychology. The Honours discipline may have limited enrolment and may have additional selection requirements.

General Selection Criteria for Honours Disciplines

For consideration into Honours, students must present the following:

1. Completion of a minimum of 45 university-level credits, applicable to the program of study, with a GPA of 3.0 or better
2. 24 of the 45 credits must have been completed in the last 12 months
3. A minimum of six credits completed at the senior-level in the discipline of study
4. A minimum GPA of 3.3 in all senior-level courses in the discipline of study

Students interested in one of the Honours disciplines are encouraged to request a graduation check from the Faculty of Arts and Science Program Services Office. Note that entry is competitive; satisfying the minimum requirements may not guarantee admission. For more information and to apply for entry, contact the Honours discipline advisor. Students can also email artsandscience@macewan.ca.

Honours Discipline	Department Phone Number
Biological Sciences	780-633-3399
Mathematics	780-497-5786
Psychology	780-497-5305

Program of Study - Honours Disciplines

Program Element	Description	Credits
Minimum Honours Requirements	Honours requirements are determined by each discipline.	63
Option Courses, Non-Compulsory Honours Courses, and/or a Minor	Students have the option of completing a minor from outside of the Honours discipline. Some disciplines may require a minor.	57
	Total Degree Credits Including Breadth	120

Breadth Requirements

Within the 120 credit BSc degree, students must complete the following Breadth requirements. Courses can be used **both** to satisfy the breadth and the Honours requirements. BIOL, CHEM, EASC, or PHYS courses must include a laboratory component.

Breadth Element	Description	Credits
Biological or Earth and Planetary Sciences	BIOL or EASC (not including BIOL 101, 102, or BIOL 103)	6
Chemistry or Physics	CHEM or PHYS	6
English	ENGL 102 and 3 credits in university English (not including ENGL 111 or ENGL 108)	6
Humanities	CLAS, COMP, HIST, HUMN, PHIL or a language other than English	6
Mathematical Sciences	One of MATH 114, MATH 120, or MATH 125, and 3 credits in MATH, STAT, or CMPT (not including MATH 160, MATH 170, or CMPT 104)	6
Social Sciences	ANTH, ECON, LING, POLS, PSYC, and SOCI	6

Degree Regulations

Students are strongly encouraged to seek advice from the faculty advisors about program planning.

Academic Residency - Credit Requirements

In addition to the academic residency requirements of the University, Bachelor of Science students must complete at MacEwan University:

- A minimum of 24 credits at the senior-level in the major discipline, with 12 of those senior credits completed at the 300- or 400-level. All 400-level requirements are to be completed at MacEwan University.
- If applicable, a minimum of nine credits in a minor at the senior-level, with at least three of those credits completed at the 300- or 400-level.

Breadth Requirements

Courses taken to fulfil the major, minor, or option requirements can also be used to satisfy breadth requirements.

Declaration of a Major and Minor

Students are advised to declare a primary major and minor, or primary major and a secondary major, or a major and two minors by the time they have completed 45 credits. Majors are selected from Science disciplines and consist of 42 to 60 junior- and senior-level credits. Multi-disciplinary majors consist of 60-72 junior- and senior-level credits. With the exception of those students in an Honours program, a maximum of 60

credits may be completed from any one discipline for credit towards the degree. A major and minor cannot be in the same discipline and students may not declare more than one out-of-faculty minor. Students can re-declare their major(s) and/or minor(s) if required.

For students completing multiple majors or minors, the Faculty cannot guarantee a schedule of classes that will permit students to complete their degree in eight consecutive fall and winter semesters. Furthermore, depending on the courses in which a student enrolls, meeting the requirements of a double major may require the completion of more than 120 credits for graduation. Students are strongly encouraged to consult with a program advisor in the Program Services Office in the Faculty of Arts and Science and a discipline advisor in their major and minor prior to this declaration. Students majoring in mathematical or physical sciences may pursue a minor but are not required to do so.

Graduation Grade Point Average

As part of the Graduation Grade Point Average regulation above, Bachelor of Science students must obtain an overall GGPA of 2.0 or higher, with a minimum GPA of 2.0 on all courses credited toward the major(s) and a minimum GPA of 2.0 on all courses credited toward the minor(s).

Graduation Requirements

Graduation requirements are governed by the date on which a student declares their major(s) and minor(s). Students who declare their major(s) and minor(s) up to and including February 15 are bound by

the requirements of the current academic year. Those students who declare after this date are bound by the programs of study and degree requirements of the upcoming academic year as published in the MacEwan Academic Calendar.

Junior - and Senior-Level Courses

Courses numbered from 100 to 199 are considered junior-level and courses numbered from 200 to 499 are considered senior-level.

Major or Minor 300- and 400- Level Requirements

The 300- and 400-level requirements in the major or minor cannot consist solely of project, field placement, and/or individual study courses.

Maximum Independent Courses

The maximum number of credits for independent work (project, field placement, and/or individual study courses) excluding the Honours Thesis, is 15 credits. Specific disciplines may have further restrictions.

Maximum Junior-Level Courses

A maximum of 48 credits at the 100-level are permitted in completion of the B.Sc. degree. Additional courses at the 100-level are extra to the 120 credits required to complete the B.Sc. degree and will not be counted toward fulfilment of graduation requirements.

Minimum Science Courses

Students are required to complete successfully a minimum of 72 total credits from Science courses.

Minimum Passing Grade

A minimum grade of D is required for all Science degree courses unless otherwise noted next to the appropriate course in the program of study. A maximum of six credits with a final grade of D or D+ are permitted in courses credited toward the minimum requirements for the major.

Minimum Transfer Grade for Credit

A minimum grade of D is required on any transfer credit granted for the program. Arts and Science courses require a minimum grade of C- when the course is used as a prerequisite. Transfer credit decisions made by the university are final and cannot be appealed.

Out-of-Faculty Options Requirements

Degree options may include a maximum of 15 credits from courses offered by a Faculty or School other than Arts and Science except for those students completing an out-of-faculty minor or those who have met the minor requirements with a diploma. These students must complete their degree options from courses offered within the Faculty of Arts and Science.

Progression of Studies

Students are responsible for ensuring they meet the prerequisite and/or co-requisite requirements as noted on all courses that may fulfill Bachelor of Science program requirements.

Additional Degree Regulations - Honours Overall Requirements

The Honours program of study consists of 63 to 84 credits as determined by the discipline. Students in the Honours program may choose to complete a minor outside of the Honours discipline. Some disciplines may require a minor.

Course Load

Students accepted into an Honours program must complete 24-credits in each twelve consecutive months they are in the program. Exceptions to this rule may occur with the approval of the Honours discipline advisor.

Grade Point Average

Students accepted and enrolled in the Science Honours program must maintain a minimum overall GPA of 3.0. As well, students must maintain a minimum GPA of 3.3 in all courses specified in the Honours discipline of study for each twelve consecutive months following acceptance into the Honours program. Failure to do so will result in the student's program status reverting to BSc with a major in the previous Honours discipline.

Graduation Grade Point Average

In order to graduate, students must obtain an overall GGPA of 3.0 or higher, with a minimum GPA of 3.3 on all courses credited toward the Honours program of study.

Additional Degree Regulations - Subsequent Baccalaureate

In addition to meeting the degree regulations listed above, students who already hold a baccalaureate degree must satisfy the provisions of policies pertaining to subsequent baccalaureate credentials.