University of Lethbridge

Calendar Year: 2026/2027

PROGRAM PLANNING GUIDE

Name:_____

ID: | | | | | | | | | |

Bachelor of Science / Bachelor of Education

Biological Sciences / Science Education

As an Education major, a student develops a strong knowledge base in the subject area they intend to teach. They also receive in-depth preparation in how to teach, including both general and subject area instructional methods.

The Department of Biological Sciences provides you with a great deal of hands-on learning and engaging research, moving you beyond text books and lectures.

What determines my program requirements?

Please refer to the Academic Calendar (www.ulethbridge.ca/ross/academic-calendar) for complete program information.

Calendar Year: 2026/2027 - Your calendar year is set to the academic year you are admitted (or readmitted), and you should follow the requirements for that year for the duration of your program.

Faculty/School: Faculty of Arts and Science (www.ulethbridge.ca/artsci) and Faculty of Education (www.ulethbridge.ca/education)

Program(s): Bachelor of Science / Bachelor of Education

Major(s): Biological Sciences / Science Education

Minor: A defined set of courses designed to provide depth in a particular discipline, study in an interdisciplinary area, or focus on a theme-related topic. To learn more about optional minors, see www.ulethbridge.ca/ross/minors.

Am I admissible to this program?

Admission: www.ulethbridge.ca/ross/admissions/undergrad

Transfer: www.ulethbridge.ca/ross/transfer-resources

When/How do I apply to the University?

Deadlines: www.ulethbridge.ca/ross/admissions/undergrad/deadlines

Step-by-Step: www.ulethbridge.ca/ross/admissions/step-by-step

Where can I find information on courses?

Course Catalogue: www.ulethbridge.ca/ross/courses

Registration Guide: www.ulethbridge.ca/ross/registration-guide

When can I register for classes?

Register early! (March for Summer and Fall; November for Winter)

Registration Dates: www.ulethbridge.ca/ross/registration-dates

How can I enhance my program?

Career Bridge: www.ulethbridge.ca/career-bridge

Education Specializations:
www.ulethbridge.ca/education/programs-degrees/undergraduate-studies/specializations

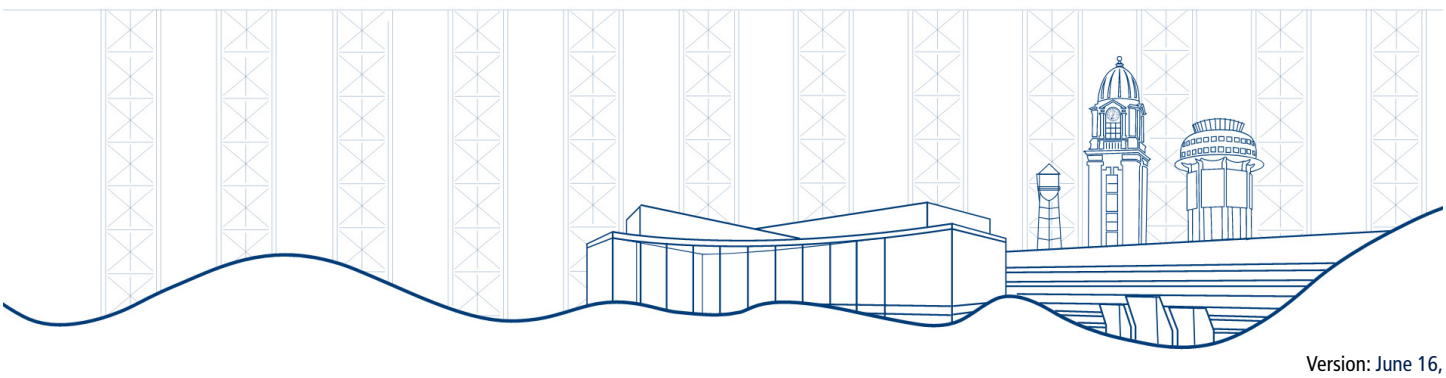
What supports are available to students?

Student Services: www.ulethbridge.ca/campus-life/student-services

Student Success Centre: www.ulethbridge.ca/student-success-centre

Accessible Learning: www.ulethbridge.ca/ross/alc

Counselling Services: www.ulethbridge.ca/counselling



Version: June 16, 2026

Contact an Academic Advisor (www.ulethbridge.ca/ross/academic-advising) for advising information

This is a planning guide and not a graduation check or guarantee of course offerings. You should have a program check done in your final year of studies. Students are responsible for ensuring they have met program requirements. This guide should be used in conjunction with the University of Lethbridge Academic Calendar, which is the final authority on program requirements and academic regulations.

PROGRAM REQUIREMENTS (2026/2027)

Required courses and notes

Name:_____

ID: | | | | | | | | | |

Students begin in the Faculty of Arts and Science where they progress toward completion of Faculty of Arts and Science degree requirements, and prepare to meet the admission requirements for the Faculty of Education. Please note that completion of admission requirements does not guarantee admission to the Faculty of Education.

B.Sc. Major Requirements (16 Courses)

_____ **1.** Biochemistry 2000 - Introductory Biochemistry
_____ **2.** Biology 1010 - Cellular Basis of Life
_____ **3.** Biology 1020 - Diversity of Life
_____ **4.** Biology 2000 - Principles of Genetics
_____ **5.** Biology 2150 - Biostatistics
_____ **6.** Biology 2200 - Principles of Ecology
_____ **7.** Biology 2300 - Cell Biology
_____ **8.** Biology 3300 - Evolution
_____ **9.** Chemistry 1000 - General Chemistry I
_____ **10.** Chemistry 2000 - General Chemistry II
_____ **11.** Chemistry 2500 - Organic Chemistry I
_____ **12.** **One of:**

- _____ Mathematics 1410 - Elementary Linear Algebra
- _____ Mathematics 1560 - Calculus I
- _____ Mathematics 1565 - Accelerated Calculus I

_____ **13.** **One of:**

- _____ Physics 1000 - Introduction to Physics I
- _____ Physics 1050 - Introduction to Biophysics (preferred)

_____ **14.-16.** [1] Three courses (9.0 credit hours) in Biology at the 3000 level, including one course (3.0 credit hours) from each of the following subfield lists:

One of (List 1 - Cellular and Molecular Biology)

- _____ Biochemistry 3100 - Proteins, Enzymes and Nucleic Acids
- _____ Biochemistry 3700/Neuroscience 3700 - Introduction to Bioinformatics
- _____ Biology 3000 - Gene Expression and Regulation
- _____ Biology 3005 - Genomes
- _____ Biology 3110 - Cell Signalling
- _____ Biology 3210 - Experimental Methods in Molecular and Cellular Biology
- _____ Biology 3400 - Principles of Microbiology

One of (List 2 - Organismal Biology)

- _____ Biology 3310 - Developmental Biology
- _____ Biology 3420 - Animal Physiology
- _____ Biology 3460 - Plant Physiology
- _____ Biology 3520 - Invertebrate Zoology
- _____ Biology 3530 - Vertebrate Zoology
- _____ Biology 3560 - Integrative Plant Biology

One of (List 3 - Ecology and Evolutionary Biology)

- _____ Biology 3095/Geography 3095 - Advanced Biogeography
- _____ Biology 3630 - Field Biology
- _____ Biology 3660 - Field Botany
- _____ Biology 3700 - Ecosystem Ecology
- _____ Biology 3710 - Population Biology
- _____ Biology 3720 - Community Ecology

Recommended course:

Environmental Science 2000 - Fundamentals of Environmental Science

Notes

[1] Topics courses (Biology 3850) may be assigned to one of the Biological Sciences lists at the time of scheduling. Please refer to the current term timetable.

Other Courses (minimum 14 courses)

Courses offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education only (no courses labelled ACCT, AGEM, AMHC, CDEV, CRED, DGTR, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, or TREC unless cross-listed with a course from one of the above faculties).

_____ **17.-30.** Fourteen additional courses (42.0 credit hours) chosen to complete program requirements

- _____ 17._____
- _____ 18._____
- _____ 19._____
- _____ 20._____
- _____ 21._____
- _____ 22._____
- _____ 23._____
- _____ 24._____
- _____ 25._____
- _____ 26._____
- _____ 27._____
- _____ 28._____
- _____ 29._____
- _____ 30._____

Optional Concentration: _____

For information about the optional concentrations, see **Combined Degrees** in the 2026/2027 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar.

_____ **1.-5.** **Required Courses**

- _____ 1._____
- _____ 2._____
- _____ 3._____
- _____ 4._____
- _____ 5._____

Name:_____
ID: | | | | | | | | | |

Liberal Education List Requirement

Only four courses (12.0 credit hours) in total may be counted from any one discipline toward the Lib Ed Requirement. Disciplines are identified by separate course subject codes. Cross-listed courses count toward the limit for both disciplines (e.g. Geography 3225/Global Business 3225 counts toward the limit for Geography and Dhillon School of Business courses).

Only four courses (12.0 credit hours) in total from the Faculty of Education (EDUC), Faculty of Health Sciences (AMHC, HLSC, INHL, NURS, PUBH, and TREC), and the Dhillon School of Business (ACCT, AGEM, DGTR, FINC, GLBU, HRLR, IGBM, MGT, and MKTG) may be counted towards the Lib Ed Requirement.

To determine if a course has a Liberal Education designation, see School of Liberal Education in the 2026/2027 University of Lethbridge Undergraduate Calendar, www.ulethbridge.ca/ross/academic-calendar.

_____ **1.-4.** **List I: Fine Arts and Humanities**

_____ 1._____
_____ 2._____
_____ 3._____
_____ 4._____

_____ **5.-8.** **List II: Social Science**

_____ 5._____
_____ 6._____
_____ 7._____
_____ 8._____

_____ **9.-12.** **List III: Science**

_____ 9._____
_____ 10._____
_____ 11._____
_____ 12._____

B.A. or B.Sc. General Requirements

_____ A minimum of 30 courses (90.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education with a GPA of at least 2.00 (on the University of Lethbridge 4.0 scale).

_____ A maximum of three Independent Study courses (9.0 credit hours) may be completed for credit toward the degree.

_____ A maximum of three Disciplinary Credit Applied Studies courses (9.0 credit hours) may be completed for credit towards the degree. Students may, in addition, complete Applied Studies 2000, 2001, 2010, and 2011. For Art majors, Museum Studies Internship courses (Museum Studies 4000, 4001, and 4002) are included in this limit.

_____ A maximum of 17 courses (51.0 credit hours) may be completed from any one discipline (see **Faculty of Arts and Science** in the 2026/2027 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar). Disciplines are identified by a specific course label (e.g. KNES, ASTR, and HIST are separate disciplines).

_____ A maximum of 6.0 credit hours in Activity courses (i.e. courses labelled PHAC and MUSE) may be completed for credit towards the degree, except for Kinesiology majors (not more than 15.0 credit hours) and Music majors (not more than 12.0 credit hours).

_____ Residence requirement: a minimum of 15 courses (45.0 credit hours) offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education must be completed at the University of Lethbridge. At least half of the courses required in the major must be completed at the University of Lethbridge.

A **maximum** of 10 courses (30.0 credit hours) may be completed at the 1000 level (or lower) for credit towards the degree, excluding Activity courses (labelled PHAC and MUSE) and courses numbered in the range of 0520 to 0530.

_____ **1.-10.** **Introductory Course Limit**

_____ 1._____
_____ 2._____
_____ 3._____
_____ 4._____
_____ 5._____
_____ 6._____
_____ 7._____
_____ 8._____
_____ 9._____
_____ 10._____

A **minimum** of 10 courses (30.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education at the 3000/4000 level, excluding Activity courses (labelled PHAC and MUSE). Out-of-faculty courses (i.e. labelled ACCT, AGEM, AMHC, CDEV, CRED, DGTR, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, and TREC) will not meet this requirement.

_____ **1.-10.** **Senior Course Requirement**

_____ 1._____
_____ 2._____
_____ 3._____
_____ 4._____
_____ 5._____
_____ 6._____
_____ 7._____
_____ 8._____
_____ 9._____
_____ 10._____

PROGRAM REQUIREMENTS (2026/2027)

Required courses and notes

Name:_____

ID: | | | | | | | | | |

Faculty of Education Admission

To be considered for admission to the Faculty of Education, successful completion of the following is required:

- 14 graded term courses (42.0 credit hours).
- **Education Admission GPA:** Minimum cumulative grade point average of 2.50 on all U of L and transferable courses taken within the terms containing the last 14 courses (42.0 credit hours). All courses must be graded.
- Minimum of five courses (15.0 credit hours) in the major.
- **Major GPA:** Minimum cumulative grade point average of 2.50 on all graded courses comprising the major, including all transferable courses.
- Credit in Education 2500 - Orientation to Teaching (or equivalent) prior to the fall program intake, including a favourable recommendation from the instructor.

Students are advised to contact Student Program Services in the Faculty of Education (edu.sps@uleth.ca; TH421; tel. 403-329-2254) for guidelines regarding the requirements stated above. For specific information on admission requirements, please refer to the Combined Degrees section of the Academic Calendar: www.ulethbridge.ca/ross/academic-calendar.

Students of Indigenous descent, and students with a significant shift in academic performance, are advised to refer to the current Calendar for the Faculty of Education's Special Case Admission policies.

B.Ed. Requirements (20-course equivalent)

_____ **1.** * Education 2500 - Orientation to Teaching (3.0 credit hours)
_____ **2.-36.** Professional Semester I (15.0 credit hours)
_____ **7.-11.** Professional Semester II (15.0 credit hours)
_____ **12.-16.** Professional Semester III (15.0 credit hours)
_____ **17.** Education Foundation (3.0 credit hours) at the 43xx level

_____

_____ **18.-20.** Three Education Electives (9.0 credit hours) at the 3000 or 4000 level

_____ 18._____
_____ 19._____
_____ 20._____

_____ * Additional Education Elective 3.0 credit hours) if Education 2500 was waived

_____

B.Ed. General Requirements

Bachelor of Education

_____ Completion of the equivalent of 20 courses (60.0 credit hours) in Education
_____ Completion of the Education teaching major with a cumulative GPA of 2.50 (on the University of Lethbridge 4.0 scale).
_____ A cumulative GPA of 2.50 or higher (on the University of Lethbridge 4.0 scale) in all courses taken after admission to the Faculty of Education.
_____ Residence requirement: a minimum of 15 courses (45.0 credit hours) offered by the Faculty of Education must be completed at the University of Lethbridge.

Note: In order to have a teaching minor endorsed on the official academic transcript, a GPA of 2.50 or higher on all non-Education courses comprising the minor and, additionally, a minimum B- in the appropriate Education methods course is required.

Optional Education Minor: _____

For information about Education Minors, see **Minors for Education Programs**, www.ulethbridge.ca/ross/minors.
Consult with an Academic Advisor if you wish to add a minor to your program.

_____ **1.-6.** **Required Courses**

_____ 1._____
_____ 2._____
_____ 3._____
_____ 4._____
_____ 5._____
_____ 6._____ *(Education methods req.)*

Optional Specialization or Special Internship:

_____

Other options include Special Internships in Indigenous Education or Early Childhood Education, where a required course and approval is needed. Specializations in Inclusive Education, or Technology in Education require additional courses that must be taken before the Professional Semester III commences. For information on Specializations please refer to the Faculty of Education section of the Academic Calendar See an Academic Advisor in the Faculty of Education for planning and further details.

_____ **1.-5.** **Required Courses**

_____ 1._____
_____ 2._____
_____ 3._____
_____ 4._____
_____ 5._____ *(PS III)*

RECOMMENDED SEQUENCING PLAN (2026/2027)

Recommended Course Sequence

Name:_____

ID: | | | | | | | | | |

Shown below is the recommended sequence of courses for your degree. Consult timetables for course offerings, prerequisites, and corequisites before registering each term as some courses may have limited offerings (ie. once a year, alternating years, or only offered in the Fall or Winter terms).
Consult with an Academic Advisor in your faculty if you wish to alter this sequence with regard to the specifically listed courses.
Note that this sequence was prepared based on course scheduling at the time of publication and <u>may</u> change during your studies.

First Year

Biology 1010
Biology 1020
Chemistry 1000
Chemistry 2000
Mathematics Requirement
Physics 1050 (preferred)
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course

Second Year

Biochemistry 2000
Biology 2000
Biology 2150
Biology 2200
Biology 2300
Chemistry 2500
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course
Education 2500

Admission to the Faculty of Education
Education 2500 must be completed (with a Pass Recommend) before admission. It may be taken in the winter or summer term immediately prior to the fall intake

Third Year (Fall)

Professional Semester I (15.0 credit hours)
Curriculum and Instruction, Educational Psychology, Language in Education, Assessment and Learning, Teaching Seminar, Indigenous Education
Practicum - Equivalent to 125 hours in a school

Third Year (Winter)

Biology 3300
Biology 3000 level
Elective 3000/4000 level
Elective 3000/4000 level
Lib Ed Requirement course

Fourth Year (Fall)

Biology 3000 level
Biology 3000 level
Elective 3000/4000 level
Elective 3000/4000 level
Elective 3000/4000 level

Fourth Year (Winter)

Professional Semester II (15.0 credit hours)
Principles of Curriculum and Instruction for Majors, The Educational Psychology of Exceptional Learners, Social Context of Schooling, Evaluation and Reporting
Practicum - Equivalent to 150 hours in a school

Elementary Education students will reverse the Fifth Year fall and winter terms and complete PS III in the winter.

Fifth Year (Fall)

Professional Semester III (15.0 credit hours)
Internship - Students are assigned to schools for approximately 200 hours in a practicum and assume full responsibility for a classroom for approximately one-half of that time

Fifth Year (Winter)

Elective 3000/4000 level
Education Foundation course (43xx)
Education elective 3000/4000 level
Education elective 3000/4000 level
Education elective 3000/4000 level

Note: Courses in bold in Years 1 and 2 of the sample sequence are prerequisite(s) for required courses and should be completed early in your program. Students are advised to review the prerequisites for elective courses within the major and plan accordingly.