



PROGRAM PLANNING GUIDE

Name: _____

ID:

Bachelor of Science

Environmental Science



Environmental scientists study the impact of these interactions on the biosphere, hydrosphere, lithosphere and atmosphere using an interdisciplinary and integrative approach. The major in environmental science will provide you with an appropriate background in the natural and physical sciences that is needed to understand how natural and man-made systems function. It will provide you with a broad perspective that is required to appreciate the role of humanity in global environmental change.

What determines my program requirements?

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

Calendar Year: 2025/2026 - 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)

Program(s): Bachelor of Science

Major(s): Environmental Science

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

Co-op Education: www.ulethbridge.ca/career-bridge/co-operative-education

Honours Thesis: www.ulethbridge.ca/ross/undergraduate-thesis

Double Major: www.ulethbridge.ca/ross/double-major

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





PROGRAM REQUIREMENTS (2025/2026)

Required courses and notes

Name: _____
 ID:

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Major Requirements (22 Courses)

- _____ 1. Biology 1010 - Cellular Basis of Life
- _____ 2. Biology 1020 - Diversity of Life
- _____ 3. Biology 2000 - Principles of Genetics
- _____ 4. Biology 2200 - Principles of Ecology
- _____ 5. Chemistry 1000 - General Chemistry I
- _____ 6. Chemistry 2000 - General Chemistry II
- _____ 7. Environmental Science 2000 - Fundamentals of Environmental Science
- _____ 8. Environmental Science 4010 - Current Events in Environmental Science
- _____ 9. Geography 1000 - Introduction to Physical Geography
- _____ 10. Geography 2030 - Geomorphology
- _____ 11. Geography 2300 - Weather and Climate
- _____ 12. Geography 2735 - Introduction to Geographical Information Science
- _____ 13. **One of:**
 - _____ Biology 2150 - Biostatistics
 - _____ Geography 2700 - Geographical Data and Analysis
- _____ 14. **One of:**
 - _____ Chemistry 2410 - Analytical Chemistry I
 - _____ Chemistry 2500 - Organic Chemistry I
- _____ 15. **One of:**
 - _____ Mathematics 1560 - Calculus I
 - _____ Mathematics 1565 - Accelerated Calculus I
- _____ 16.-17. **Two of:**
 - _____ Geography 2065 - Physical Geology
 - _____ Geography 2090/Biology 2090 - Biogeography
 - _____ Geography 3060 - Glaciology and Glacial Geomorphology
 - _____ Geography 3080 - Soils
 - _____ Geography 3095/Biology 3095 - Advanced Biogeography
 - _____ Geography 3300 - Microclimatology
 - _____ Geography 3400 - Hydrology
 - _____ Geography 3440/Environmental Science 3440 - Wetlands
 - _____ Geography 3720 - Remote Sensing
 - _____ Geography 3735 - Analysis of Environmental Data
 - _____ Geography 3740 - Geographical Information Systems
- _____ 18.-19. **Two of:**
 - _____ Geography 2090/Biology 2090 - Biogeography
 - _____ Geography 3095/Biology 3095 - Advanced Biogeography
 - _____ Biology 3300 - Evolution
 - _____ Biology 3460 - Plant Physiology
 - _____ Biology 3520 - Invertebrate Zoology
 - _____ Biology 3530 - Vertebrate Zoology
 - _____ Biology 3560 - Integrative Plant Biology
 - _____ Biology 3700 - Ecosystem Ecology
 - _____ Biology 3710 - Population Biology
 - _____ Biology 3720 - Community Ecology
- _____ 20.-21. **Two of:**
 - _____ Biology 4605 - Conservation Biology
 - _____ Biology 4700 - Molecular Ecology
 - _____ Biology 4710 - Evolutionary and Ecological Modelling
 - _____ Biology 4740 - Behavioural Ecology
 - _____ Biology 4800 - Biology of Parasitism
 - _____ Biology 4840/Geography 4840 - Limnology
 - _____ Geography 4030 - Advanced Physical Geography (Series)
 - _____ Geography 4060 - Agricultural Soil Management
 - _____ Geography 4400 - Advanced Hydrology
 - _____ Geography 4725 - Advanced Remote Sensing
 - _____ Geography 4740 - Advanced Geographical Information Systems

- _____ 22. **One of:**
 - _____ Biology 3630 - Field Biology
 - _____ Biology 3660 - Field Botany
 - _____ Geography 3710 - Field Techniques in the Earth Sciences
 - _____ ¹Geography 3780 - Field Research in Geography
 - _____ Geography 3792 - Field Excursion in Physical Geography (Series)
 - _____ ²An approved field course

Technical Studies Term (5 courses)

The Technical Studies term should be taken after at least 20 university courses have been completed and prior to registration in the final 10 courses for the degree.

Students must have the college course selection approved by the Coordinator of Environmental Science. Students are not permitted to complete any courses in addition to the approved Lethbridge Polytechnic courses during the Technical Studies term. Further details are available from the Coordinator.

- _____ 23. Environmental Science unspecified 2000-level
- _____ 24. Environmental Science unspecified 2000-level
- _____ 25. Environmental Science unspecified 3000-level
- _____ 26. Environmental Science unspecified 3000-level
- _____ 27. Environmental Science unspecified 3000-level

Notes

- ¹ This course has a prerequisite or corequisite that is not required for the major.
- ² Must be approved by the Coordinator of Environmental Science.

Students may not receive credit for courses at the University of Lethbridge for which close equivalents have been taken at Lethbridge Polytechnic, and vice versa. Students must ensure that their course selection has been approved by the Coordinator of Environmental Science.

Electives (13 Courses)

- _____ 28.-40. Thirteen additional courses (39.0 credit hours) chosen to complete program requirements
 - _____ 28. _____
 - _____ 29. _____
 - _____ 30. _____
 - _____ 31. _____
 - _____ 32. _____
 - _____ 33. _____
 - _____ 34. _____
 - _____ 35. _____
 - _____ 36. _____
 - _____ 37. _____
 - _____ 38. _____
 - _____ 39. _____
 - _____ 40. _____

Optional Concentration: _____

Courses taken to complete the concentration will fill in as electives in the program requirements above.

For information about the optional concentrations, see **Faculty of Arts and Science** in the 2025/2026 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar.

- _____ 1.-5. **Required Courses**
 - _____ 1. _____
 - _____ 2. _____
 - _____ 3. _____
 - _____ 4. _____
 - _____ 5. _____



Required courses and notes

Name: _____

ID:

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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. IGBM 3250/INDG 3250 counts toward the limit for Dhillon School of Business courses and Indigenous Studies).

Only four courses (12.0 credit hours) in total from the Faculty of Education (EDUC), Faculty of Health Sciences (ADCS, HLSC, INHL, NURS, PUBH, and TREC), and the Dhillon School of Business (ACCT, AGEM, 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 2025/2026 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. _____

General Requirements

_____ A minimum of 40 courses (120.0 credit hours) with a GPA of at least 2.00.

_____ A maximum of five Independent Study courses (15.0 credit hours) may be completed for credit towards the degree.

_____ A maximum of five Disciplinary Credit Applied Studies courses (15.0 credit hours) may be completed for credit towards the degree. Students may, in addition, complete Applied Studies 2000, 2001, 2010, and 2011.

_____ A maximum of 24 courses (72.0 credit hours) may be completed from any one discipline for credit towards the degree. 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).

_____ A maximum of six courses (18.0 credit hours) from disciplines offered outside the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education may be completed for credit towards the degree (i.e. labelled ACCT, ADCS, AGEM, CDEV, CRED, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, and TREC). Courses cross-listed between the Faculty of Arts and Science and another Faculty or School do not count towards this limit.

_____ Residence requirement: a minimum of 20 courses (60.0 credit hours) must be completed at the University of Lethbridge, including at least 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. At least half of the courses required in the major must be completed at the University of Lethbridge.

A **maximum** of 12 courses (36.0 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.-12. Introductory Course Limit**

- _____ 1. _____
- _____ 2. _____
- _____ 3. _____
- _____ 4. _____
- _____ 5. _____
- _____ 6. _____
- _____ 7. _____
- _____ 8. _____
- _____ 9. _____
- _____ 10. _____
- _____ 11. _____
- _____ 12. _____

A **minimum** of 15 courses (45.0 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, ADCS, AGEM, CDEV, CRED, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, and TREC) will not meet this requirement.

_____ **1.-15. Senior Course Requirement**

- _____ 1. _____
- _____ 2. _____
- _____ 3. _____
- _____ 4. _____
- _____ 5. _____
- _____ 6. _____
- _____ 7. _____
- _____ 8. _____
- _____ 9. _____
- _____ 10. _____
- _____ 11. _____
- _____ 12. _____
- _____ 13. _____
- _____ 14. _____
- _____ 15. _____

Optional Minor:

For information about minors see **Minors** in the 2025/2026 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar. 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. _____



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 may change during your studies.

First Year

- Biology 1010**
- Biology 1020**
- Chemistry 1000**
- Chemistry 2000**
- Environmental Science 2000
- Geography 1000**
- Mathematics requirement
- Lib Ed Requirement course
- Lib Ed Requirement course
- Lib Ed Requirement course

Second Year

- One of: **Biology 2150** or **Geography 2700**
- Biology 2000**
- Biology 2200**
- One of: Chemistry 2410 or Chemistry 2500
- Geography 2030
- Geography 2300
- Geography 2735
- Geography list course
- Lib Ed Requirement course
- Lib Ed Requirement course

Third Year

- Biology list course
- Biology list course
- Geography 3000/4000-level list course
- Field course
- Lib Ed Requirement course

Technical Studies Term (15.0 credit hours)

Students will receive credit for the following (upon successful completion and receipt of transcripts):

- 2 Environmental Science 3000-level science courses
- 3 Environmental Science 2000-level science courses

Fourth Year

- Environmental Science 4010
- Biology or Geography 4000-level list course
- Biology or Geography 4000-level list course
- Lib Ed Requirement course 3000/4000 level
- Lib Ed Requirement course 3000/4000 level
- Elective 3000/4000 level
- Elective 3000/4000 level
- Elective 3000/4000 level
- Elective 3000/4000 level
- Elective

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.

Students should complete Biology 1010, Biology 1020, Biology 2000, Biology 2200, Chemistry 1000, and Chemistry 2000 by the end of Year Two to be eligible to undertake the required Technical Studies Term in Year Three.