



# PROGRAM PLANNING GUIDE

ID:

Name: \_\_\_\_\_

## Post-Diploma 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](http://www.ulethbridge.ca/ross/academic-calendar)) for complete program information.

**Calendar Year:** 2024/2025 - 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](http://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](http://www.ulethbridge.ca/ross/minors).

#### Am I admissible to this program?

**Admission:** [www.ulethbridge.ca/ross/admissions/undergrad](http://www.ulethbridge.ca/ross/admissions/undergrad)

**Transfer:** [www.ulethbridge.ca/ross/transfer-resources](http://www.ulethbridge.ca/ross/transfer-resources)

#### When/How do I apply to the University?

**Deadlines:** [www.ulethbridge.ca/ross/admissions/undergrad/deadlines](http://www.ulethbridge.ca/ross/admissions/undergrad/deadlines)

**Step-by-Step:** [www.ulethbridge.ca/ross/admissions/step-by-step](http://www.ulethbridge.ca/ross/admissions/step-by-step)

#### Where can I find information on courses?

**Course Catalogue:** [www.ulethbridge.ca/ross/courses](http://www.ulethbridge.ca/ross/courses)

**Registration Guide:** [www.ulethbridge.ca/ross/registration-guide](http://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](http://www.ulethbridge.ca/ross/registration-dates)

#### How can I enhance my program?

**Career Bridge:** [www.ulethbridge.ca/career-bridge](http://www.ulethbridge.ca/career-bridge)

**Co-op Education:** [www.ulethbridge.ca/career-bridge/co-operative-education](http://www.ulethbridge.ca/career-bridge/co-operative-education)

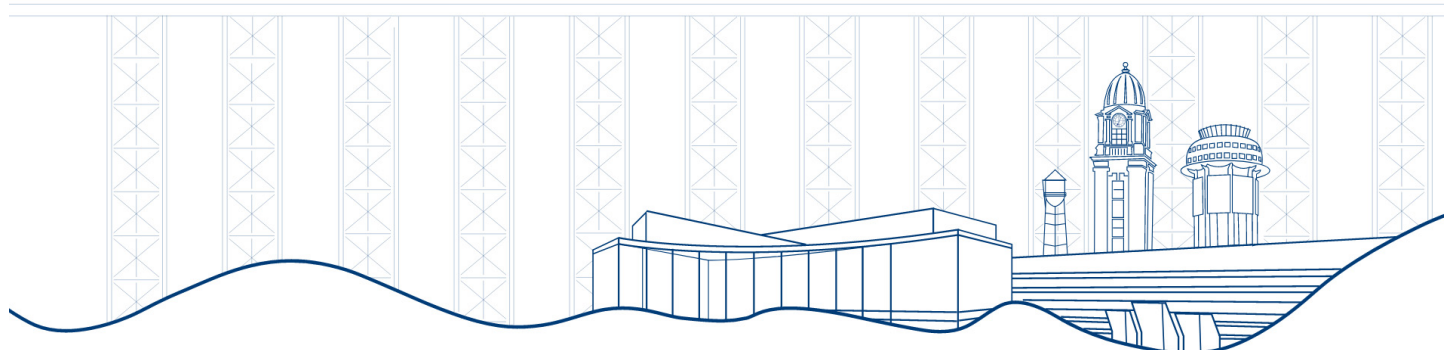
#### What supports are available to students?

**Student Services:** [www.ulethbridge.ca/campus-life/student-services](http://www.ulethbridge.ca/campus-life/student-services)

**Student Success Centre:** [www.ulethbridge.ca/student-success-centre](http://www.ulethbridge.ca/student-success-centre)

**Accessible Learning:** [www.ulethbridge.ca/ross/alc](http://www.ulethbridge.ca/ross/alc)

**Counselling Services:** [www.ulethbridge.ca/counselling](http://www.ulethbridge.ca/counselling)



## Required courses and notes

### Program Requirements (20 Courses)

Students must complete at least 20 courses (60.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education, as follows, with a minimum GPA of 2.00.

#### Required core (14 courses):

- \_\_\_\_\_ **1.** Biology 1010 - Cellular Basis of Life
- \_\_\_\_\_ **2.** Biology 2000 - Principles of Genetics
- \_\_\_\_\_ **3.** Environmental Science 4010 - Current Events in Environmental Science
- \_\_\_\_\_ **4.** Geography 2300 - Weather and Climate
- \_\_\_\_\_ **5.** Geography 3740 - Geographical Information Systems
- \_\_\_\_\_ **6.** **One of:**
  - \_\_\_\_\_ Physics 1050 - Introduction to Biophysics
  - \_\_\_\_\_ Statistics 1770 - Introduction to Probability and Statistics
- \_\_\_\_\_ **7.** **One of:**
  - \_\_\_\_\_ Biology 2150 - Biostatistics
  - \_\_\_\_\_ Geography 2700 - Geographical Data and Analysis
- \_\_\_\_\_ **8.-10.** **Three of:**
  - \_\_\_\_\_ Biology 2090/Geography 2090 - Biogeography
  - \_\_\_\_\_ Biology 3095/Geography 3095 - Advanced Biogeography
  - \_\_\_\_\_ Biology 3300 - Evolution
  - \_\_\_\_\_ Biology 3460 - Plant Physiology
  - \_\_\_\_\_ Biology 3520 - Invertebrate Zoology
  - \_\_\_\_\_ Biology 3530 - Vertebrate Zoology
  - \_\_\_\_\_ Biology 3630 - Field Biology
  - \_\_\_\_\_ Biology 3660 - Field Botany
  - \_\_\_\_\_ Biology 3700 - Ecosystem Ecology
  - \_\_\_\_\_ Biology 3710 - Population Biology
  - \_\_\_\_\_ Biology 3720 - Community Ecology
  - \_\_\_\_\_ Biology 4605 - Conservation Biology
  - \_\_\_\_\_ Biology 4700 - Molecular Ecology
  - \_\_\_\_\_ Biology 4710 - Evolutionary and Ecological Modelling
  - \_\_\_\_\_ Biology 4740 - Behavioural Ecology
  - \_\_\_\_\_ Biology 4800 - Biology of Parasitism
- \_\_\_\_\_ **11.-12.** Two courses (6.0 credit hours) in Geography at the 3000/4000 level, with a Science designation
  - \_\_\_\_\_ 11. \_\_\_\_\_
  - \_\_\_\_\_ 12. \_\_\_\_\_
- \_\_\_\_\_ **13.-14.** Two lab-based courses (6.0 credit hours) in Chemistry at the 1000 level or above (preferably Chemistry 1110 - Chemistry for Life Sciences I and Chemistry 2120 - Chemistry for Life Sciences II)
  - \_\_\_\_\_ 13. \_\_\_\_\_
  - \_\_\_\_\_ 14. \_\_\_\_\_

#### Electives (six courses):

- \_\_\_\_\_ **15.-17.** Three courses (9.0 credit hours) from List I: Fine Arts and Humanities
  - \_\_\_\_\_ 15. \_\_\_\_\_
  - \_\_\_\_\_ 16. \_\_\_\_\_
  - \_\_\_\_\_ 17. \_\_\_\_\_
- \_\_\_\_\_ **18.** One course (3.0 credit hours) from List II: Social Sciences
- \_\_\_\_\_ **19.** One course (3.0 credit hours) from List I: Fine Arts and Humanities or List II: Social Sciences
- \_\_\_\_\_ **20.** One additional course (3.0 credit hours) at the 3000/4000 level, excluding Activity courses (labeled PHAC and MUSE)

#### Notes

Courses labeled as “electives” may be used towards a minor if a minor is chosen. Additional courses (apart from the core and elective courses) must be completed if a concentration is declared.

To determine if a given course has a Fine Arts and Humanities, Social Science, or Science designation, see List I: Fine Arts and Humanities Courses, List II: Social Science Courses, and List III: Science Courses (see **School of Liberal Education** in the 2024/2025 University of Lethbridge Calendar, [www.ulethbridge.ca/ross/academic-calendar](http://www.ulethbridge.ca/ross/academic-calendar)).

No more than two Independent Study courses (3990 or 4990; 6.0 credit hours) may be counted towards the program.

Students may not take for credit those courses offered by Biological Sciences or Geography that have close equivalents in the college diploma program. These excluded courses include the following: Biology 1020, Biology 2200, Geography 1000, Geography 2065, Geography 2735, and Geography 3080.

### Optional Concentration: Geographical Information Science

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

For information about the Geographical Information Science concentration, see **Faculty of Arts and Science** in the 2024/2025 University of Lethbridge Calendar, [www.ulethbridge.ca/ross/academic-calendar](http://www.ulethbridge.ca/ross/academic-calendar).

#### \_\_\_\_\_ 1.-5. Required Courses

- \_\_\_\_\_ 1. \_\_\_\_\_
- \_\_\_\_\_ 2. \_\_\_\_\_
- \_\_\_\_\_ 3. \_\_\_\_\_
- \_\_\_\_\_ 4. \_\_\_\_\_
- \_\_\_\_\_ 5. \_\_\_\_\_



## Recommended Course Sequence

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**

One of: **Biology 2150** or **Geography 2700**

#### **Biology 2000**

#### <sup>1</sup>**Chemistry 1110**

<sup>1</sup>Chemistry 2120

Geography 2300

One of: Physics 1050 or Statistics 1770

Biology list course

Lib Ed Requirement course

Lib Ed Requirement course

### Second Year

Environmental Science 4010

Geography 3740

Geography 3000/4000 level (Science)

Geography 3000/4000 level (Science)

Biology list course

Biology list course

Lib Ed Requirement course

Lib Ed Requirement course

Lib Ed Requirement course

Elective 3000/4000 level

1. Preferred Chemistry courses.

**Note:** Courses in bold in 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.