

University of  
Lethbridge



## Program Planning Guide

**Program:** Bachelor of Science/Bachelor of Education (B.Sc./B.Ed.)

**Major (Arts and Science):** Geography

**Major (Education):** Science Education

**Calendar Year:** 2016/2017

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

**ID:** \_\_\_\_\_

**Major in Geography:**

[www.uleth.ca/artsci/geography](http://www.uleth.ca/artsci/geography)

**Academic Calendar:**

[www.uleth.ca/ross/academic-calendar](http://www.uleth.ca/ross/academic-calendar)

**High School Prerequisites by Course:**

[www.uleth.ca/ross/hs\\_prereqs/course](http://www.uleth.ca/ross/hs_prereqs/course)

**Faculty of Education Admission Requirements:**

[www.uleth.ca/education/programs-degrees/undergraduate-studies/admission](http://www.uleth.ca/education/programs-degrees/undergraduate-studies/admission)

**Current and Past Program Planning Guides:**

[www.uleth.ca/ross/ppgs](http://www.uleth.ca/ross/ppgs)

**Faculty of Arts and Science Advising:**

[www.uleth.ca/artsci/advising](http://www.uleth.ca/artsci/advising)  
[artsci.advising@uleth.ca](mailto:artsci.advising@uleth.ca)  
403-329-5106  
SU060

**Faculty of Education Advising:**

[www.uleth.ca/education/student-advising](http://www.uleth.ca/education/student-advising)  
[edu.sps@uleth.ca](mailto:edu.sps@uleth.ca)  
403-329-2254  
TH421

Geography/Science Education

Bachelor of Science/Bachelor of Education

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 the accuracy of their own programs. The guide should be used in conjunction with the University of Lethbridge Calendar, which is the final authority on all questions regarding program requirements and academic regulations. Contact an Academic Advisor in the Faculty of Arts and Science or Faculty of Education for advising information.

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

**ID :** \_\_\_\_\_

**B.Sc./B.Ed. (Geography/Science Education)**

Completion of at least 30 courses (90.0 credit hours) from disciplines offered by the Faculty of Arts and Science or Faculty of Fine Arts with a grade point average of at least 2.00.

Completion of the equivalent of 20 courses (60.0 credit hours) in Education with a program grade point average of at least 2.50 in Education courses and the appropriate major.

**Major Requirements (16 courses)**

- \_\_\_\_\_ 1. Biology 1020 - Diversity of Life
- \_\_\_\_\_ 2. Chemistry 1000 - General Chemistry I
- \_\_\_\_\_ 3. Geography 1000 - Introduction to Physical Geography
- \_\_\_\_\_ 4. Geography 2030 - Geomorphology
- \_\_\_\_\_ 5. Geography 2300 - Weather and Climate
- \_\_\_\_\_ 6. Geography 2700 - Geographical Data and Analysis
- \_\_\_\_\_ 7. Geography 2735 - Introduction to Geographical Information Science
- \_\_\_\_\_ 8. Mathematics 1560 - Calculus I
- \_\_\_\_\_ 9. Physics 1000 - Introduction to Physics I
- \_\_\_\_\_ 10. **One of:**
  - \_\_\_\_\_ Geography 2090 - Biogeography
  - \_\_\_\_\_ Geology 2060 - Physical Geology
- \_\_\_\_\_ 11. **One of:**
  - \_\_\_\_\_ Geography 3710 - Field Techniques in the Earth Sciences
  - \_\_\_\_\_ Geography 3720 - Remote Sensing
  - \_\_\_\_\_ Geography 3740 - Geographical Information Systems
- \_\_\_\_\_ 12-13. **Two of:**
  - \_\_\_\_\_ Geography 3035 - Fluvial Geomorphology
  - \_\_\_\_\_ Geography 3060 - Glaciology and Glacial Geomorphology
  - \_\_\_\_\_ Geography 3080 - Soils
  - \_\_\_\_\_ Geography 3300 - Microclimatology
  - \_\_\_\_\_ Geography 3400 - Hydrology I
- \_\_\_\_\_ 14. **One of:**
  - \_\_\_\_\_ Geography 4065 - Irrigation Science
  - \_\_\_\_\_ Geography 4400 - Hydrology II
  - \_\_\_\_\_ Geography 4415 - Integrated Watershed Management
  - \_\_\_\_\_ Geography 4725 - Advanced Remote Sensing
  - \_\_\_\_\_ Geography 4750 - Glacial Processes, Measurements, and Models

**Other Courses (minimum 14 courses)**

*Arts and Science or Fine Arts courses only (no courses labelled ADCS, CDEV, CRED, EDUC, HLSC, MGT, NURS, PUBH, or TREC)*

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

**Education Requirements (20-course equivalent)**

- \_\_\_\_\_ Education 2500 - Practicum I - Orientation to Teaching
- \_\_\_\_\_ Professional Semester I (15.0 credit hours)
- \_\_\_\_\_ Professional Semester II (15.0 credit hours)
- \_\_\_\_\_ Professional Semester III (15.0 credit hours)

Education Foundation: \_\_\_\_\_

Three Education Electives:

- |          |          |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ |          |

Two additional lab-based courses (6.0 credit hours) in Biology, Chemistry, or Physics

15. \_\_\_\_\_ 16. \_\_\_\_\_

**Recommended courses:**

- Biology 1010 - Cellular Basis of Life
- Environmental Science 2000 - Fundamentals of Environmental Science

**Completion of the General Liberal Education Requirement (GLER).**

Only four courses (12.0 credit hours) in total may be counted from any one discipline toward the GLER. Disciplines are identified by separate course subject codes.

See the 2016/2017 Calendar, p. 86, for more information.

**LIST I: Fine Arts and Humanities Courses**

1. \_\_\_\_\_ 3. \_\_\_\_\_

2. \_\_\_\_\_ 4. \_\_\_\_\_

**LIST II: Social Science Courses**

1. \_\_\_\_\_ 3. \_\_\_\_\_

2. \_\_\_\_\_ 4. \_\_\_\_\_

**LIST III: Science Courses**

1. \_\_\_\_\_ 3. \_\_\_\_\_

2. \_\_\_\_\_ 4. \_\_\_\_\_

Not more than 10 courses (30.0 credit hours) may be completed at the 1000 level (or lower) [0500 - 1999] for credit towards the degree, excluding Activity courses (labelled PHAC and MUSE).

1. \_\_\_\_\_ 6. \_\_\_\_\_

2. \_\_\_\_\_ 7. \_\_\_\_\_

3. \_\_\_\_\_ 8. \_\_\_\_\_

4. \_\_\_\_\_ 9. \_\_\_\_\_

5. \_\_\_\_\_ 10. \_\_\_\_\_ (max.)

Completion of at least 10 courses (30.0 credit hours) from disciplines offered by the Faculty of Arts and Science or the Faculty of Fine Arts at the 3000/4000 level, excluding Activity courses (labelled PHAC and MUSE).

1. \_\_\_\_\_ 6. \_\_\_\_\_

2. \_\_\_\_\_ 7. \_\_\_\_\_

3. \_\_\_\_\_ 8. \_\_\_\_\_

4. \_\_\_\_\_ 9. \_\_\_\_\_

5. \_\_\_\_\_ 10. \_\_\_\_\_ (min.)

\_\_\_\_ Not more than three Independent Study courses (9.0 credit hours) may be completed for credit towards the degree.

\_\_\_\_ Not more than 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.

\_\_\_\_ Not more than 17 courses (51.0 credit hours) may be completed from any one discipline for credit towards the degree.

*Note: Disciplines are identified by a specific course label (e.g. KNES, ASTR, and HIST are separate disciplines).*

\_\_\_\_ Not more than six 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:**

**Degree:**

**Art and Science:** at least 15 courses (45.0 credit hours) offered by the Faculty of Arts and Science or the Faculty of Fine Arts must be completed at the University of Lethbridge.

**Education:** at least 15 courses (45.0 credit hours) offered by the Faculty of Education must be completed at the University of Lethbridge.

**Major:** at least half of the courses required in the major must be completed at the University of Lethbridge.

**Education Minor (If Applicable):** \_\_\_\_\_  
See the 2016/2017 Calendar, p. 166, for eligible minors.

1. \_\_\_\_\_ 4. \_\_\_\_\_

2. \_\_\_\_\_ 5. \_\_\_\_\_

3. \_\_\_\_\_ 6. \_\_\_\_\_

Education (methods requirement)

**Education Specialization (If Applicable):** \_\_\_\_\_  
See the 2016/2017 Calendar, p. 170, for details.

1. \_\_\_\_\_ 4. \_\_\_\_\_

2. \_\_\_\_\_ 5. Education 4573

3. \_\_\_\_\_

**Please refer to page 4 of this guide for Faculty of Education admission requirements.**

## Sample Sequencing Plan

Shown below is a sample sequence of courses for your degree. If you follow this plan, you should be able to graduate in five years, provided you complete five courses per semester. This is just one example of how you could complete your major and degree requirements; you may find that a different sequence works as well as this one.

<p><b>Year 1, Fall</b>                      Geography 1000                      Chemistry 1000                      Mathematics 1560<sup>1</sup>                      GLER course                      GLER course</p> <p><b>Year 2, Fall</b>                      Education 2500<sup>2</sup>                      Geography 2030                      Geography 2735                      Additional lab-based Biology, Chemistry, or Physics course                      GLER course</p> <p><b>Year 3, Fall</b>                      Professional Semester I</p> <p><b>Year 4, Fall</b>                      One of: Geography 3710, Geography 3720, or Geography 3740<sup>2</sup>                      Geography 3000-level list course                      Geography 4000-level list course                      Elective 3000/4000 level                      Elective 3000/4000 level</p> <p><b>Year 5, Fall</b>                      Professional Semester III</p>	<p><b>Year 1, Spring</b>                      Biology 1020                      Geography 2300                      Physics 1000                      GLER course                      GLER course</p> <p><b>Year 2, Spring</b>                      Geography 2700                      One of: Geography 2090<sup>3</sup> or Geology 2060                      Additional lab-based Biology, Chemistry, or Physics course  <i>(Biology 1010 recommended)</i>                      GLER course                      GLER course</p> <p><b>Year 3, Spring</b>                      Geography 3000-level list course                      Environmental Science 2000  <i>(recommended)</i>                      Elective 3000/4000 level                      Elective 3000/4000 level                      GLER course 3000/4000 level</p> <p><b>Year 4, Spring</b>                      Professional Semester II</p> <p><b>Year 5, Spring</b>                      Education Foundation course                      Education elective                      Education elective                      Education elective                      Elective 3000/4000 level</p>
<p><b>Elementary Education and Special/Inclusive Education students will reverse the fall and spring semesters in Year 5 and complete PS III in the spring.</b></p>	

<sup>1</sup> Students with less than 75% in Mathematics 30-1 or without Mathematics 31 must complete MATH 1010 as a prerequisite.

<sup>2</sup> Education 2500 may also be taken in spring or summer semester.

<sup>3</sup> Semester of offering may vary.

## Terms Used

**GLER course:** A course that could count toward the General Liberal Education Requirement. You may use courses in your major towards this 12-course requirement. See the 2016/2017 University of Lethbridge Calendar, Part 4 - Academic Regulations for complete information.

The Faculty of Arts and Science offers Liberal Education 1000 and 2000, specifically designed to introduce first-year students to the wide scope of human knowledge and teach essential university success skills, critical thinking, and integrative thinking (see the 2016/2017 University of Lethbridge Calendar, Part 14 - Courses). LBED 1000 and 2000 may be used toward satisfying the GLER.

**Elective:** A course that you may choose freely from all those available and applicable to your program. Use courses inside or outside your major, bearing in mind any restrictions that may apply (e.g., a maximum of 17 courses from any one discipline).

## Faculty of Education Admission

Admission to the Faculty of Education requires successful completion of the following:

- \_\_\_\_\_ 20 semester courses (60.0 credit hours).
- \_\_\_\_\_ Minimum cumulative grade point average of 2.50 on all UoL and transferable courses taken within the semesters containing the last 20 courses (60.0 credit hours). All courses must be graded with the exception of Education 2500.
- \_\_\_\_\_ Minimum of eight courses (24.0 credit hours) in the major.
- \_\_\_\_\_ Minimum cumulative grade point average of 2.50 on all graded courses comprising the major, including all transferable courses.
- \_\_\_\_\_ Credit in Education 2500 - Practicum I - Orientation to Teaching (or equivalent) including a favourable recommendation from the instructor.
- \_\_\_\_\_ Writing Proficiency Requirement:  
 See Part 13 (Combined Degrees) in the Academic Calendar:  
[www.uleth.ca/ross/academic-calendar](http://www.uleth.ca/ross/academic-calendar)
- \_\_\_\_\_ Additional admission requirements in the following majors:  
 Dramatic Arts, Music, Native Education and Physical Education

For specific information on admission requirements, please refer to the Combined Degrees section of the Academic Calendar:  
[www.uleth.ca/ross/academic-calendar/part13.pdf](http://www.uleth.ca/ross/academic-calendar/part13.pdf)

Students are advised to contact Student Program Services in the Faculty of Education (TH421; tel. 403-329-2254) for guidelines regarding the requirements stated above.

For application and document deadlines please refer to:  
[www.uleth.ca/ross/admission-information/deadlines](http://www.uleth.ca/ross/admission-information/deadlines)

### Combined Degrees Program:

Students begin this program in the Faculty of Arts and Science where they progress toward completion of Arts and Science degree requirements, and prepare to meet the admission requirements for the Faculty of Education. Please note that completion of the required prerequisites does not guarantee admission to the Faculty of Education. For students of Aboriginal descent, and students with a significant shift in academic performance, please see the current Calendar for the Faculty of Education's special case admission policy.

