

University of  
Lethbridge



Faculty of Arts & Science

## Program Planning Guide

**Department:** Geography

**Calendar Year:** 2013/2014

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

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

**Bachelor of Science**  
**Geography**

**Major in Geography:**

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

**Faculty of Arts and Science Student Program Services:**

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

**Current and Past Program Planning Guides:**

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

**Academic Calendar:**

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

**Co-operative Education:**

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

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 for advising information.

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

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

**B.Sc. Geography**

Completion of at least 40 courses (120.0 credit hours) with a grade point average of at least 2.00.

**Major Requirements (23 courses)**

- \_\_\_\_\_ Archaeology 1000 - Introduction to Archaeology
- \_\_\_\_\_ Biology 1020 - Diversity of Life
- \_\_\_\_\_ Environmental Science 2000 - Fundamentals of Environmental Science
- \_\_\_\_\_ Geography 1000 - Introduction to Physical Geography
- \_\_\_\_\_ Geography 1200 - Introduction to Human Geography
- \_\_\_\_\_ Geography 2030 - Geomorphology
- \_\_\_\_\_ Geography 2210 - Spatial Organization of Economic Activity
- \_\_\_\_\_ Geography 2300 - Weather and Climate
- \_\_\_\_\_ Geography 2700 - Geographical Data and Analysis
- \_\_\_\_\_ Geography 2735 - Introduction to Geographical Information Science

**One of (Field Course):**

- \_\_\_\_\_ Archaeology 3300 - Archaeological Field Work (Series)
- \_\_\_\_\_ Geography 3710 - Field Techniques in the Earth Sciences
- \_\_\_\_\_ Geography 3780 - Field Research in Geography
- \_\_\_\_\_ Geography 4710 - Remote Sensing Field Techniques

**Two of (Geographical Techniques):**

- \_\_\_\_\_ Geography 3235 - Quantitative Models for Geographic Analysis
- \_\_\_\_\_ Geography 3700 - Cartography
- \_\_\_\_\_ Geography 3720 - Remote Sensing
- \_\_\_\_\_ Geography 3740 - Geographical Information Systems
- \_\_\_\_\_ Geography 3750 - GIS Applications in Human Geography
- \_\_\_\_\_ Geography 4730 - Spatial Statistics

**Three of (Physical Geography):**

- \_\_\_\_\_ Geography 2090 - Biogeography
- \_\_\_\_\_ Geography 3035 - Fluvial Geomorphology
- \_\_\_\_\_ Geography 3060 - Glaciology and Glacial Geomorphology
- \_\_\_\_\_ Geography 3075 - Environmental Resources Management
- \_\_\_\_\_ Geography 3080 - Soils
- \_\_\_\_\_ Geography 3300 - Microclimatology
- \_\_\_\_\_ Geography 3400 - Hydrology I
- \_\_\_\_\_ Geology 2060 - Physical Geology

**Three of:**

- \_\_\_\_\_ Geography 4060 - Agricultural Soil Management
- \_\_\_\_\_ Geography 4065 - Irrigation Science
- \_\_\_\_\_ Geography 4400 - Hydrology II
- \_\_\_\_\_ Geography 4415 - Integrated Watershed Management
- \_\_\_\_\_ Geography 4700 - Advanced Computer Mapping
- \_\_\_\_\_ Geography 4725 - Advanced Remote Sensing
- \_\_\_\_\_ Geography 4740 - Advanced Geographical Information Systems
- \_\_\_\_\_ Geography 4750 - Glacial Processes, Measurements, and Models

**One of:**

- \_\_\_\_\_ Geography 4030 - Series in Advanced Physical Geography
- \_\_\_\_\_ Geography 4751 - Project in Spatial Modelling
- \_\_\_\_\_ Geography 4753 - Seminar in Remote Sensing
- \_\_\_\_\_ Geography 4900 - History and Theory of Geography

**One of:**

- \_\_\_\_\_ Chemistry 1000 - General Chemistry I
- \_\_\_\_\_ Physics 1000 - Introduction to Physics I

**One of:**

- \_\_\_\_\_ Mathematics 1410 - Elementary Linear Algebra
- \_\_\_\_\_ Mathematics 1560 - Calculus I
- \_\_\_\_\_ Statistics 1770 - Introduction to Probability and Statistics

One additional course (3.0 credit hours) at the 2000 level or higher from the offerings in Astronomy, Biochemistry, Biology, Chemistry, Computer Science, Engineering, Mathematics, Statistics, or Physics

**Other Courses (minimum 17 courses)**

- |          |           |
|----------|-----------|
| 1. _____ | 10. _____ |
| 2. _____ | 11. _____ |
| 3. _____ | 12. _____ |
| 4. _____ | 13. _____ |
| 5. _____ | 14. _____ |
| 6. _____ | 15. _____ |
| 7. _____ | 16. _____ |
| 8. _____ | 17. _____ |
| 9. _____ |           |

**Notes**

See also:

- Bachelor of Arts - Geography
- Bachelor of Arts or Bachelor of Science - Archaeology and Geography
- Bachelor of Science/Bachelor of Education - Geography/Science Education

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

Only four courses (12.0 credit hours) in total may be counted from all courses offered by a single department. See the 2013/2014 Calendar, p. 88, 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 12 courses (36.0 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. \_\_\_\_\_ 7. \_\_\_\_\_

2. \_\_\_\_\_ 8. \_\_\_\_\_

3. \_\_\_\_\_ 9. \_\_\_\_\_

4. \_\_\_\_\_ 10. \_\_\_\_\_

5. \_\_\_\_\_ 11. \_\_\_\_\_

6. \_\_\_\_\_ 12. \_\_\_\_\_

Completion of at least 15 courses (45.0 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. \_\_\_\_\_ 9. \_\_\_\_\_

2. \_\_\_\_\_ 10. \_\_\_\_\_

3. \_\_\_\_\_ 11. \_\_\_\_\_

4. \_\_\_\_\_ 12. \_\_\_\_\_

5. \_\_\_\_\_ 13. \_\_\_\_\_

6. \_\_\_\_\_ 14. \_\_\_\_\_

7. \_\_\_\_\_ 15. \_\_\_\_\_

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

\_\_\_\_ Not more than five Independent Study courses (15.0 credit hours) may be completed for credit towards the degree.

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

\_\_\_\_ Not more than 24 courses (72.0 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 four Activity courses (i.e. courses labelled PHAC and MUSE; maximum 6.0 credit hours) may be completed for credit towards the degree, except for Kinesiology majors (not more than 10 Activity courses; 15.0 credit hours) and Music majors (not more than 8 Activity courses; 12.0 credit hours).

\_\_\_\_ Not more than four courses (12.0 credit hours) from disciplines offered outside the Faculty of Arts and Science or the Faculty of Fine Arts may be completed for credit towards the degree (i.e. labelled CDEV, CRED, EDUC, HLSC, MGT, NURS, and PUBH). Courses cross-listed between the Faculty of Arts and Science and another Faculty do not count towards this limit.

\_\_\_\_ **Residence requirement:**

**Degree:** at least 20 courses (60.0 credit hours) must be completed at the University of Lethbridge, including the last 10 courses (30.0 credit hours) completed for credit towards the degree.

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

**Minor (Optional):** \_\_\_\_\_

See the 2013/2014 Calendar, p. 143, for eligible minors.

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

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

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

**Concentration:  
Geographical Information Science (Optional)**

See the 2013/2014 Calendar, p. 130, for more information.

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

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

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

## 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 four 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 or Physics 1000                      One of: Mathematics 1410,                      Mathematics 1560, or                      Statistics 1770                      GLER course                      GLER course</p>	<p><b>Year 1, Spring</b>                      Archaeology 1000                      Geography 1200                      Biology 1020                      GLER course                      GLER course</p>
<p><b>Year 2, Fall</b>                      Environmental Science 2000                      Geography 2030                      Geography 2210                      GLER course                      Elective</p>	<p><b>Year 2, Spring</b>                      Geography 2300                      Geography 2700                      Geography 2735                      Required science course 2000                      level<sup>1</sup>                      GLER course</p>
<p><b>Year 3, Fall</b>                      Geographical Techniques course                      Physical Geography course                      Geography - Field course<sup>2</sup>                      Elective 3000/4000 level                      Elective</p>	<p><b>Year 3, Spring</b>                      Geographical Techniques course                      Physical Geography 3000-level                      Geography 4000-level list course                      Elective 3000/4000 level                      Elective</p>
<p><b>Year 4, Fall</b>                      Physical Geography 3000-level                      Geography 4000-level list course                      Elective 3000/4000 level                      Elective 3000/4000 level                      Elective</p>	<p><b>Year 4, Spring</b>                      Geography 4000-level list course                      Geography 4000-level list course                      Elective 3000/4000 level                      Elective 3000/4000 level                      Elective</p>

<sup>1</sup> Must be chosen from offerings in Astronomy, Biochemistry, Biology, Chemistry, Computer Science, Engineering, Mathematics, Statistics, or Physics.

<sup>2</sup> Semester of offering may vary.

**Note:** Additional requirements for the Concentration in Geographical Information Science should be taken in place of Elective courses.

Students considering entry to a graduate program in Geography are advised to complete Geography 4900. They should also complete a 4000-level Independent Study course in Geography in their final year.

## 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 2013/2014 University of Lethbridge Calendar, Part 4 - Academic Regulations (p. 88) 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 2013/2014 University of Lethbridge Calendar, Part 14 - Courses, p. 307). 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 24 courses from any one discipline).

