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**Geography/Science** 

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# **Program Planning Guide**

Current and past Program Planning Guides are available on the UofL website at www.uleth.ca/ross/ppgs/ppg.html

Calendar Year: 2013/2014

**Faculty: Arts & Science/Education** 

# **Department of Geography**

#### **About Geography**

Geographers study the earth on which we all live. This includes land masses, oceans, the atmosphere and the influence of these on humankind. The spatial organization of cultural and economic activities and the way humans modify the earth's environment are major themes in modern Geography.

## B.A. vs. B.Sc. in Geography

There are several directions a student may take in completing a program of study in Geography. Those with an interest in physical science can concentrate on courses in Physical Geography, Geology and Geoarchaeology (designated 'Science') and receive a Bachelor of Science degree. Others may concentrate on the human dimension of Geography, including Urban, Economic, Agriculture and Planning, and qualify for a Bachelor of Arts degree.

#### **Archaeology Courses**

A number of Archaeology courses are offered through the Department of Geography. Archaeology does not count toward the major in Geography for the B.Sc./B.Ed Combined Degrees program. However, students may be able to fit Archaeology courses into the B.Sc. portion of their Combined Degrees program.

## Seminars, Workshops, Practica, and Field Trips

Since Geography and Archaeology formulate theories and concepts centred upon human/earth relationships, a special effort is made to involve students in 'hands-on' experience. To this end, a series of seminars, workshops, practica, and field trips are scheduled from time to time. Students are encouraged to attend conferences with faculty from the Department of Geography. We feel that you should actually see the world as well as study it in classes. The Department routinely sends students to places such as Israel, the Grand Canyon, California and the Arctic. The trips are excellent opportunities for students to broaden their horizons and practice what is learned in the classroom.

## Opportunities for B.Sc./ B.Ed. Graduates

Many of our graduates have continued their education in graduate schools throughout Canada and the United States. Others have qualified for positions in education, urban affairs, transportation, recreation, resources, and many other diverse areas. Our majors have contributed to scholarly events. Student papers have been published in various professional journals. Also, our students actively participate in conferences, workshops, and seminars throughout western Canada and the United States.

### **Science Education Majors**

To complete a Science Education major, students must concentrate on Physical Geography and Geology courses.

# Co-operative Education in the Sciences

A Co-op option, requiring three work terms, is available. Students interested in the Co-operative Education/Internship program should contact the Coordinator of Co-operative Education in the Career Resources Centre (AH154 | phone: 403-382-7154) for further 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 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.

# **Faculty of Education**

# Choosing an Education Major

The Faculty of Education offers 11 different majors that correspond to teaching subjects in Alberta schools (see p. 161 in the 2013/2014 University of Lethbridge Calendar for a listing). In highly competitive teaching majors, the GPA for admission may be above the minimum requirements.

# Choosing Courses Outside the Major

Students sometimes find that their initial objective to teach only at the elementary level or only at the secondary school level is later modified—or even completely changed. Students are therefore encouraged to select courses that will prepare them for teaching in a variety of situations. Moreover, students should select courses that not only provide breadth and richness for the classroom but also provide the basis for the development of a teaching minor or specialization.

# Choosing an Education Minor

The Faculty of Education offers 18 minors (see p. 166 in the 2013/2014 University of Lethbridge Calendar for a listing). A minor consists of five non-Education courses (excluding those used in the major) and one curriculum and instruction Education course (to be completed after admission to the Faculty of Education). Students may use the same courses to fulfill the minor and the General Liberal Education Requirement (GLER).

# **Choosing an Education Specialization**

The Faculty of Education offers two specializations:

- Special/Inclusive Education
- Technology in Education

The specializations consist of four courses and corresponding Professional Semester III focus.

## Advantages of Completing a Minor and/or Specialization

Completing a minor and/or a specialization allows students to develop expertise in a second area of teaching and be more versatile and marketable as a graduating teacher. For more information, see the 2013/2014 University of Lethbridge Calendar, Part 8 - Education, Sections 7. Education Minors (p. 166) and 8. Education Specializations (p. 170).

#### Where to Get Help

Students may contact an Academic Advisor in Student Program Services in the Faculty of Education (email: edu.sps@uleth.ca | phone: 403-329-2254) or in the Faculty of Arts and Science (email: artsci.advising@uleth.ca | phone: 403-329-5106).

### **Program Requirements**

The B.Sc/B.Ed. combined degrees program with a major in Geography/Science Education requires a minimum of 30 courses in Arts and Science and 20 in Education. A minimum of 16 courses (10 courses in Geography and six cognates) is required in the Geography major. A maximum of 17 courses in Geography is allowed. To do a B.Sc./ B.Ed. with a Geography/Science Education major, you will emphasize Geography courses that are on the Science list (see p. 90 of the 2013/2014 University of Lethbridge Calendar).

#### **Transfer Credit**

Remember that you may use both University of Lethbridge credit and credit transferred from another college or university to meet degree and major requirements. Transfer credit may be either specified or unspecified. Specified credit is indicated on your transcript by the subject name and the specific number of the course, e.g., Geography 1000, 2210, etc. Unspecified credit (1XXX, 2XXX, etc.) is indicated by the subject name and level of the course in parentheses, e.g., Geography (1000 level), Geography (2000 level), etc.

### **Unspecified Course Credit**

Unspecified course credit means that the University of Lethbridge does not offer the same course you transferred in, but we recognize it and treat it as a regular course. An unspecified course would count as one of your maximum of 17 from one discipline, but it could not meet a specific course requirement. For example, if Geography 2700 is required in your program, you could not use Geography (2000 level) to fulfill that requirement. Students with unspecified transfer credit need to consult an Academic Advisor to establish how the transfer credit fits in the degree program. This should be done as soon as possible after transfer credit is awarded.

# **Program Worksheet**

Name:		ID:
Require	d cours	ses:
	1.	Geography 1000 - Introduction to Physical Geography
	2.	Geography 2030 - Geomorphology
	3.	Geography 2300 - Weather and Climate
	4.	Geography 2700 - Geographical Data and Analysis
	5.	Geography 2735 - Introduction to Geographical Information Science
	6.	ONE of:
		Geography 2090 - Biogeography
		Geology 2060 - Physical Geology
	7.	ONE of:
		Geography 3710 - Field Techniques in the Earth Sciences
		Geography 3720 - Remote Sensing
		Geography 3740 - Geographical Information Systems
	8-9.	TWO of:
		Geography 3035 - Fluvial Geomorphology
		Geography 3060 - Glaciology and Glacial Geomorphology
		Geography 3080 - Soils
		Geography 3300 - Microclimatology
		Geography 3400 - Hydrology I
	10.	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
Require	d cogna	ates:
	11.	Biology 1020 - Diversity of Life
	12.	Chemistry 1000 - General Chemistry I
	13.	Physics 1000 - Introduction to Physics I
	14.	Mathematics 1560 - Calculus I
1	5-16.	Two additional lab-based courses in Biology, Chemistry, and/or Physics
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# **Recommended courses:**

Biology 1010 - Cellular Basis of Life

Environmental Science 2000 - Fundamentals of Environmental Science

# 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.

Year 1, Spring

Year 2, Spring

One of: Geography 2090<sup>2</sup> or

Addition lab-based Biology,

(Biology 1010 recommended)

Chemistry, or Physics course

Geography 3000-level list course **Environmental Science 2000** 

Geography 2700

Geology 2060

**GLER** course

**GLER** course

(recommended)

Year 3, Spring

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Professional Semester II

Year 4, Spring

Biology 1020

Physics 1000

**GLER** course

**GLER** course

Geography 2300

#### Year 1, Fall

Geography 1000 Chemistry 1000 Mathematics 1560 **GLER** course **GLER** course

## Year 2, Fall

Education 2500<sup>1</sup> Geography 2030 Geography 2735 Addition lab-based Biology,

Chemistry, or Physics course

**GLER** course

## Year 3, Fall

Professional Semester I

# Year 4, Fall

One of: Geography 3710, Geography 3720, or Geography 3740<sup>2</sup> Geography 3000-level list course Elective 3000/4000 level Elective 3000/4000 level GLER course 3000/4000 level

### Year 5, Fall

Professional Semester III

### Year 5, Spring

**Education Foundation course Education elective Education elective Education elective** Geography 4000-level list course

**Elementary Education and Special/Inclusive Education** students will reverse the Fall and Spring semesters in Year 5 and complete PS III in the Spring.

### 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 17 courses from any one discipline).



<sup>&</sup>lt;sup>1</sup> Education 2500 may also be taken in Spring or Summer semester.

<sup>&</sup>lt;sup>2</sup> Semester of offering may vary.