

University of
Lethbridge



Faculty of Arts & Science

Program Planning Guide

Departments: Geography, and Physics and Astronomy

Calendar Year: 2013/2014

Name: _____

ID: _____

Bachelor of Science
Remote Sensing

Major in Remote Sensing:

www.uleth.ca/artsci/remote-sensing

Faculty of Arts and Science Student Program Services:

www.uleth.ca/artsci/advising
artsci.advising@uleth.ca
(403) 329-5106
SU060

Current and Past Program Planning Guides:

www.uleth.ca/ross/ppgs

Academic Calendar:

www.uleth.ca/ross/academic-calendar

Co-operative Education:

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 for advising information.

Name : _____

ID : _____

B.Sc. Remote Sensing

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

Major Requirements (21 courses)

Other Courses (minimum 19 courses)

- _____ Computer Science 1620 - Fundamentals of Programming I
- _____ Geography 1000 - Introduction to Physical Geography
- _____ Geography 2030 - Geomorphology
- _____ Geography 2300 - Weather and Climate
- _____ Geography 2700 - Geographical Data and Analysis
- _____ Geography 2735 - Introduction to Geographical Information Science
- _____ Geography 3720 - Remote Sensing
- _____ Geography 4725 - Advanced Remote Sensing
- _____ Mathematics 1410 - Elementary Linear Algebra
- _____ Mathematics 1560 - Calculus I
- _____ Mathematics 2560 - Calculus II
- _____ Mathematics 2570 - Calculus III
- _____ Mathematics 2580 - Calculus IV
- _____ Physics 2000 - Introduction to Physics II
- _____ Physics 2120 - Introduction to Physics III
- _____ Physics 2130 - Waves, Optics and Sound
- _____ Physics 2925 - Introduction to Experimental Physics
- _____ Physics 3650 - Optics
- _____ Physics 4650 - Physics of Remote Sensing

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

One of:

- _____ Geography 4710 - Remote Sensing Field Techniques
- _____ Geography 4751 - Project in Spatial Modelling
- _____ Geography 4753 - Seminar in Remote Sensing

One of:

- _____ Physics 1000 - Introduction to Physics I
- _____ Physics 1050 - Introduction to Biophysics
- _____ Engineering 2060 - Engineering Mechanics

Recommended courses:

- Geography 3710 - Field Techniques in the Earth Sciences
- Geography 3740 - Geographical Information Systems
- Any of Geography 4710, Geography 4751, and Geography 4753 not selected in the major
- Physics 3175 - Electricity and Magnetism
- Physics 3840 - Introduction to Computational Physics
- ¹Computer Science 3620 - Data Structures and Algorithms
- ²Computer Science 3710 - Computer Graphics
- ³Statistics 2780 - Statistical Inference

Notes

¹Prerequisites required: Computer Science 1820 and Computer Science 2620.
²Prerequisite required: Computer Science 2620.
³Prerequisite required: Statistics 1770.

See also:

- Bachelor of Science - Geography
- Bachelor of Science - Physics

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. _____
- 2. _____
- 3. _____
- 4. _____

LIST II: Social Science Courses

- 1. _____
- 2. _____
- 3. _____
- 4. _____

LIST III: Science Courses

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

____ 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. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

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>Year 1, Fall Geography 1000 Mathematics 1410 Mathematics 1560 Physics 1000 or Physics 1050 GLER course</p>	<p>Year 1, Spring Computer Science 1620 Geography 2735 Mathematics 2560 Physics 2000 GLER course</p>
<p>Year 2, Fall Geography 2030 Mathematics 2570 Physics 2120 GLER course GLER course</p>	<p>Year 2, Spring Geography 2300 Geography 2700 Mathematics 2580 Physics 2130 GLER course</p>
<p>Year 3, Fall Geography 3720 GLER course GLER course Elective 3000/4000 level Elective</p>	<p>Year 3, Spring Physics 2925 Physics 3650¹ GLER course Elective 3000/4000 level Elective 3000/4000 level</p>
<p>Year 4, Fall Geography 4725 Physics 4650¹ Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level</p>	<p>Year 4, Spring One of: Geography 4710¹, 4751¹, or 4753¹ Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level</p>

¹ 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 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).

