

University of
Lethbridge



Program Planning Guide

Departments: Geography, and Physics and Astronomy

Calendar Year: 2015/2016

Name: _____

ID: _____

Bachelor of Science
Remote Sensing

Major in Remote Sensing:

www.uleth.ca/artsci/remote-sensing

Academic Calendar:

www.uleth.ca/ross/academic-calendar

High School Prerequisites by Course:

www.uleth.ca/ross/hs_prereqs/course

Current and Past Program Planning Guides:

www.uleth.ca/ross/ppgs

Faculty of Arts and Science Student Program Services:

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

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 Faculty of Arts and Science 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)

- _____ 1. Computer Science 1620 - Fundamentals of Programming I
- _____ 2. Geography 1000 - Introduction to Physical Geography
- _____ 3. Geography 2030 - Geomorphology
- _____ 4. Geography 2300 - Weather and Climate
- _____ 5. Geography 2700 - Geographical Data and Analysis
- _____ 6. Geography 2735 - Introduction to Geographical Information Science
- _____ 7. Geography 3720 - Remote Sensing
- _____ 8. Geography 4725 - Advanced Remote Sensing
- _____ 9. Mathematics 1410 - Elementary Linear Algebra
- _____ 10. Mathematics 1560 - Calculus I
- _____ 11. Mathematics 2560 - Calculus II
- _____ 12. Mathematics 2570 - Calculus III
- _____ 13. Mathematics 2580 - Calculus IV
- _____ 14. Physics 2000 - Introduction to Physics II
- _____ 15. Physics 2120 - Introduction to Physics III
- _____ 16. Physics 2130 - Waves, Optics and Sound
- _____ 17. Physics 2925 - Introduction to Experimental Physics
- _____ 18. Physics 3650 - Optics
- _____ 19. Physics 4650 - Physics of Remote Sensing
- _____ 20. **One of:**
 - _____ Geography 4710 - Remote Sensing Field Techniques
 - _____ Geography 4751 - Project in Spatial Modelling
 - _____ Geography 4753 - Seminar in Remote Sensing
- _____ 21. **One of:**
 - _____ Physics 1000 - Introduction to Physics I
 - _____ Physics 1050 - Introduction to Biophysics
 - _____ Engineering 2060 - Engineering Mechanics

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

Notes

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 2015/2016 Calendar, p. 83, 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. _____ (max.) |

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. _____ (min.) |
| 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 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).

____ 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 ADCS, 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 2015/2016 Calendar, p. 137, for eligible minors.

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 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 1560¹ 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 3650² GLER course Elective 3000/4000 level Elective 3000/4000 level</p>
<p>Year 4, Fall Physics 4650² One of: Geography 4710², 4751², or 4753² Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level</p>	<p>Year 4, Spring Geography 4725 Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level Elective 3000/4000 level</p>

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

² 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 2015/2016 University of Lethbridge Calendar, Part 4 - Academic Regulations (p. 83) 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 2015/2016 University of Lethbridge Calendar, Part 14 - Courses, p. 301). 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).

