University of
Lethbridge

FIAT LUX

Program Planning Guide

Departments: Mathematics and Computer Science, Economics, Geography, and Psychology

Calendar Year: 2015/2016

Name:_____

ID: _____

Major in Applied Statistics:
   www.uleth.ca/artsci/math-computer-science

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

Bachelor of Science - Applied Statistics

Name: _____   ID: _____

B.Sc. Applied Statistics

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

Major Requirements (21 courses)

Required courses (11 courses)

- _____ 1. Computer Science 1620 - Fundamentals of Programming I
- _____ 2. Mathematics 1410 - Elementary Linear Algebra
- _____ 3. Mathematics 1560 - Calculus I
- _____ 4. Mathematics 2560 - Calculus II
- _____ 5. Statistics 1770 - Introduction to Probability and Statistics
- _____ 6. Statistics 2200 - Survey Design and Analysis
- _____ 7. Statistics 3500 - Mathematical Probability
- _____ 8. Statistics 3510 - Mathematical Statistics
- _____ 9. Statistics 3700 - Design and Analysis of Experiments
- _____ 10. Statistics 4990 - Independent Study
- _____ 11. **One of:**
    - _____ Statistics 2780 - Statistical Inference
    - _____ Economics 2900 - Economics and Business Statistics

Required Concentration (10 courses):

For the Major in Applied Statistics, all students must complete one of the following Concentrations:

Concentration in Economics

- _____ 12. Economics 1010 - Introduction to Microeconomics
- _____ 13. Economics 1012 - Introduction to Macroeconomics
- _____ 14. Economics 2750 - Quantitative Methods in Economics
- _____ 15. Economics 3010 - Intermediate Microeconomic Theory
- _____ 16. Economics 3012 - Intermediate Macroeconomic Theory
- _____ 17. Economics 3950 - Econometrics I
- _____ 18. Economics 4960 - Econometrics II

One additional course (3.0 credit hours) in Economics at the 3000/4000 level

19. _____

Two additional courses (6.0 credit hours) in Economics at the 4000 level

20. _____   21. _____

Concentration in Geography

- _____ 12. Geography 1000 - Introduction to Physical Geography
- _____ 13. Geography 1200 - Introduction to Human Geography
- _____ 14. Geography 2210 - Spatial Organization of Economic Activity
- _____ 15. Geography 2700 - Geographical Data and Analysis
- _____ 16. Geography 2735 - Introduction to Geographical Information Science
- _____ 17. Geography 3235 - Quantitative Models for Geographic Analysis
- _____ 18. Geography 4730 - Spatial Statistics
- _____ 19. **One of:**
    - _____ Geography 2030 - Geomorphology
    - _____ Geography 2300 - Weather and Climate
- _____ 20. **One of:**
    - _____ Geography 3740 - Geographical Information Systems
    - _____ Geography 3750 - GIS Applications in Human Geography

One additional course (3.0 credit hours) in Geography at the 3000/4000 level

21. _____

Concentration in Psychology

- _____ 12. Psychology 1000 - Basic Concepts of Psychology
- _____ 13. Psychology 2030 - Methods and Statistics
- _____ 14. Psychology 3400 - Advanced Research Design and Data Analysis
- _____ 15-18. **Four of:**
    - _____ Neuroscience 2600 - Brain and Behaviour
    - _____ Psychology 2110 - Introduction to Child Development
    - _____ Psychology 2320 - Cognition and Perception: Thinking and Seeing
    - _____ Psychology 2330 - Learning and Cognition
    - _____ Psychology 2505 - Abnormal Psychology
    - _____ Psychology 2700 - Behaviour and Evolution
    - _____ Psychology 2800 - Social Psychology
    - _____ Psychology 2820 - Culture, Evolution, and Human Social Life
    - _____ Psychology 2840 - Comparative Sexuality

Two additional courses (6.0 credit hours) in Psychology or Neuroscience at the 3000/4000 level

19. _____   20. _____

One course (3.0 credit hours) in Psychology at the 4000 level

21. _____

Other Courses (minimum 19 courses)

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

Notes

It is strongly recommended that a student attain a grade of 'C' or higher in any course used to satisfy prerequisites for courses in Computer Science, Mathematics, and Statistics.

See also:
- Bachelor of Science - Mathematics

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.
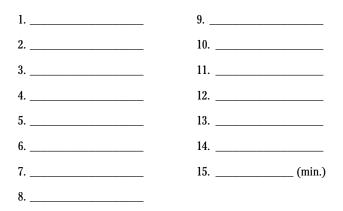
LIST I: Fine Arts and Humanities Courses

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.

Year 1, Fall
Mathematics 1560 [1]
Statistics 1770
Concentration course
GLER course
GLER course

Year 1, Spring
Mathematics 1410
Mathematics 2560
Concentration course
GLER course
GLER course

Year 2, Fall
Computer Science 1620
Statistics 2780 or
  Economics 2900
Concentration course
GLER course
Elective

Year 2, Spring
Statistics 2200
Concentration course
GLER course
Elective
Elective

Year 3, Fall
Statistics 3500
Concentration course
Elective 3000/4000 level
Elective 3000/4000 level
Elective

Year 3, Spring
Statistics 3510
Statistics 3700
Concentration course
Elective 3000/4000 level
Elective

Year 4, Fall
Concentration course
Concentration course
Elective 3000/4000 level
Elective 3000/4000 level
Elective

Year 4, Spring
Statistics 4990
Concentration course
Concentration course
Elective 3000/4000 level
Elective 3000/4000 level

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

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).