



PROGRAM PLANNING GUIDE

Name: _____

ID:

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Bachelor of Science

Applied Statistics



Statistics is the study of the collection, organization, analysis, interpretation and presentation of data. In a world that is increasingly data-driven, knowing how to extract and interpret information is key. Statistics help evaluate ideas, test hypotheses and give clarity to complex issues. The major in applied statistics is structured to provide a firm theoretical background in statistics and to allow you to apply specific statistical techniques within your discipline of interest. The program has three possible concentrations: economics, geography, psychology.

What determines my program requirements?

Please refer to the Academic Calendar (www.ulethbridge.ca/ross/academic-calendar) for complete program information.

Calendar Year: 2025/2026 - Your calendar year is set to the academic year you are admitted (or readmitted) and you should follow the requirements for that year for the duration of your program.

Faculty/School: Faculty of Arts and Science (www.ulethbridge.ca/artsci)

Program(s): Bachelor of Science

Major(s): Applied Statistics

Minor: A defined set of courses, designed to provide depth in a particular discipline, study in an interdisciplinary area, or focus on a theme-related topic. To learn more about optional minors see www.ulethbridge.ca/ross/minors.

Am I admissible to this program?

Admission: www.ulethbridge.ca/ross/admissions/undergrad

Transfer: www.ulethbridge.ca/ross/transfer-resources

When/How do I apply to the University?

Deadlines: www.ulethbridge.ca/ross/admissions/undergrad/deadlines

Step-by-Step: www.ulethbridge.ca/ross/admissions/step-by-step

Where can I find information on courses?

Course Catalogue: www.ulethbridge.ca/ross/courses

Registration Guide: www.ulethbridge.ca/ross/registration-guide

When can I register for classes?

Register early! (March for Summer and Fall; November for Winter)

Registration Dates: www.ulethbridge.ca/ross/registration-dates

How can I enhance my program?

Career Bridge: www.ulethbridge.ca/career-bridge

Co-op Education: www.ulethbridge.ca/career-bridge/co-operative-education

Honours Thesis: www.ulethbridge.ca/ross/undergraduate-thesis

Double Major: www.ulethbridge.ca/ross/double-major

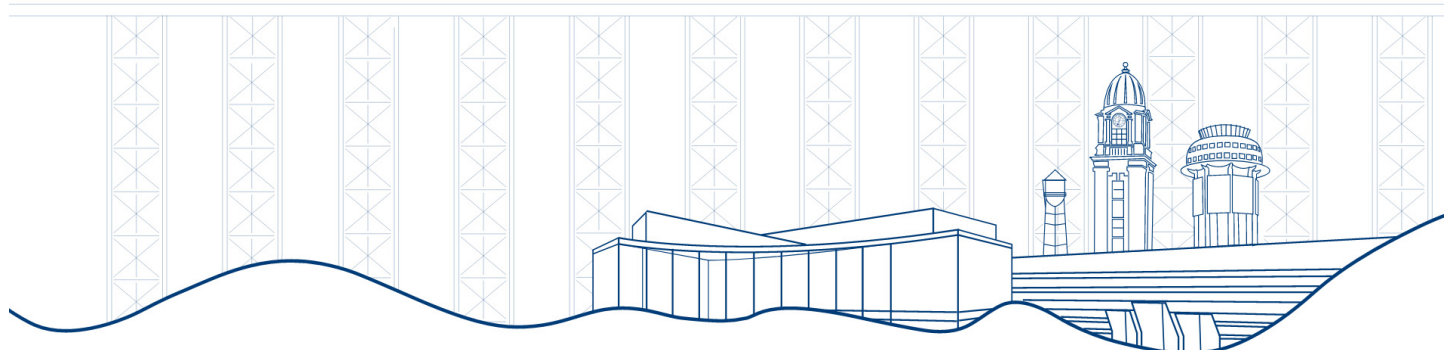
What supports are available to students?

Student Services: www.ulethbridge.ca/campus-life/student-services

Student Success Centre: www.ulethbridge.ca/student-success-centre

Accessible Learning: www.ulethbridge.ca/ross/alc

Counselling Services: www.ulethbridge.ca/counselling



Version: February 11, 2025

Contact an Academic Advisor (www.ulethbridge.ca/ross/academic-advising) for advising 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 ensuring they have met program requirements. This guide should be used in conjunction with the University of Lethbridge Academic Calendar, which is the final authority on program requirements and academic regulations.



PROGRAM REQUIREMENTS (2025/2026)

Required courses and notes

Major Requirements (23 Courses)

1. Computer Science 1620 - Fundamentals of Programming I
2. Mathematics 1410 - Elementary Linear Algebra
3. Statistics 1770 - Introduction to Probability and Statistics
4. Statistics 3500 - Mathematical Probability
5. Statistics 3510 - Mathematical Statistics
6. **One of:**
 - Mathematics 1560 - Calculus I
 - Mathematics 1565 - Accelerated Calculus I
7. **One of:**
 - Mathematics 2560 - Calculus II
 - Mathematics 2565 - Accelerated Calculus II
8. **One of:**
 - Statistics 2780 - Statistical Inference
 - Economics 2900 - Economics and Business Statistics
9. One additional course (3.0 credit hours) in Statistics at the 2000 level or above
10. One additional course (3.0 credit hours) in Statistics at the 3000 level or above
11. One course (3.0 credit hours) at the 4000 level in Statistics

Required Concentration:

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

- 12.-23. Concentration in Economics (10 courses & 2 electives)**
- Economics 1010 - Introduction to Microeconomics
 - Economics 1012 - Introduction to Macroeconomics
 - Economics 2750 - Quantitative Methods in Economics
 - Economics 3010 - Intermediate Microeconomic Theory
 - Economics 3012 - Intermediate Macroeconomic Theory
 - Economics 3950 - Econometrics I
 - Economics 4960 - Econometrics II
 - One additional course (3.0 credit hours) in Economics at the 3000/4000 level

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

Two additional courses (6.0 credit hours) chosen to complete program requirements

- 12.-23. Concentration in Geography (10 courses & 2 electives)**

- Geography 1000 - Introduction to Physical Geography
- Geography 1200 - Introduction to Human Geography
- Geography 2210 - Spatial Organization of Economic Activity
- Geography 2700 - Geographical Data and Analysis
- Geography 2735 - Introduction to Geographical Information Science
- Geography 3720 - Remote Sensing
- Geography 3740 - Geographical Information Systems

One of:

- Geography 2030 - Geomorphology
- Geography 2300 - Weather and Climate

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One of:

- Geography 3735 - Analysis of Environmental Data
- Geography 4725 - Advanced Remote Sensing
- Geography 4740 - Advanced Geographical Information Systems
- Remote Sensing 4650 - Physics of Remote Sensing
- One additional course (3.0 credit hours) in Geography at the 3000/4000 level

Two additional courses (6.0 credit hours) chosen to complete program requirements

- 12.-23. Concentration in Psychology (12 courses)**

- Psychology 1010 - Introduction to Psychology A: Evolution, Mechanisms, and Cognition/ Perception
- Psychology 1020 - Introduction to Psychology B: Developmental, Sociocultural, and Abnormal
- Psychology 1030 - Key Skills in Psychology
- Psychology 2030 - Thinking with Data I
- Psychology 3400 - Thinking with Data II
- Four courses (12.0 credit hours) in Psychology or Neuroscience at the 2000 level

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

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

Electives (17 Courses)

- 24.-40.** Seventeen additional courses (51.0 credit hours) chosen to complete program requirements

24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____
34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____



PROGRAM REQUIREMENTS (2025/2026)

Required courses and notes

Liberal Education List Requirement

Only four courses (12.0 credit hours) in total may be counted from any one discipline toward the Lib Ed Requirement. Disciplines are identified by separate course subject codes. Cross-listed courses count toward the limit for both disciplines (e.g. IGBM 3250/INDG 3250 counts toward the limit for Dhillon School of Business courses and Indigenous Studies).

Only four courses (12.0 credit hours) in total from the Faculty of Education (EDUC), Faculty of Health Sciences (ADCS, HLSC, INHL, NURS, PUBH, and TREC), and the Dhillon School of Business (ACCT, AGEM, FINC, GLBU, HRLR, IGBM, MGT, and MKTG) may be counted towards the Lib Ed Requirement.

To determine if a course has a Liberal Education designation, see School of Liberal Education in the 2025/2026 University of Lethbridge Undergraduate Calendar, www.ulethbridge.ca/ross/academic-calendar.

1.-4. List I: Fine Arts and Humanities

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

5.-8. List II: Social Science

- _____ 5. _____
- _____ 6. _____
- _____ 7. _____
- _____ 8. _____

9.-12. List III: Science

- _____ 9. _____
- _____ 10. _____
- _____ 11. _____
- _____ 12. _____

General Requirements

- _____ A minimum of 40 courses (120.0 credit hours) with a GPA of at least 2.00.
- _____ A maximum of five Independent Study courses (15.0 credit hours) may be completed for credit towards the degree.
- _____ A maximum of 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.
- _____ A maximum of 24 courses (72.0 credit hours) may be completed from any one discipline for credit towards the degree. Disciplines are identified by a specific course label (e.g. KNES, ASTR, and HIST are separate disciplines).
- _____ A maximum of 6.0 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).
- _____ A maximum of six courses (18.0 credit hours) from disciplines offered outside the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education may be completed for credit towards the degree (i.e. labelled ACCT, ADCS, AGEM, CDEV, CRED, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, and TREC). Courses cross-listed between the Faculty of Arts and Science and another Faculty or School do not count towards this limit.
- _____ Residence requirement: a minimum of 20 courses (60.0 credit hours) must be completed at the University of Lethbridge, including at least 10 courses (30.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education at the 3000/4000 level. At least half of the courses required in the major must be completed at the University of Lethbridge.

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A **maximum** of 12 courses (36.0 credit hours) may be completed at the 1000 level (or lower) for credit towards the degree, excluding Activity courses (labelled PHAC and MUSE) and courses numbered in the range of 0520 to 0530.

1.-12. Introductory Course Limit

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

A **minimum** of 15 courses (45.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education at the 3000/4000 level, excluding Activity courses (labelled PHAC and MUSE). Out-of-faculty courses (i.e. labelled ACCT, ADCS, AGEM, CDEV, CRED, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, and TREC) will not meet this requirement.

1.-15. Senior Course Requirement

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

Optional Minor:

For information about minors see **Minors** in the 2025/2026 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar. Consult with an Academic Advisor if you wish to add a minor to your program.

1.-6. Required Courses

- _____ 1. _____
- _____ 2. _____
- _____ 3. _____
- _____ 4. _____
- _____ 5. _____
- _____ 6. _____



RECOMMENDED SEQUENCING PLAN (2025/2026)

Recommended Course Sequence

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Shown below is the recommended sequence of courses for your degree. Consult timetables for course offerings, prerequisites, and corequisites before registering each term as some courses may have limited offerings (ie. once a year, alternating years, or only offered in the Fall or Winter terms). Consult with an Academic Advisor in your faculty if you wish to alter this sequence with regard to the specifically listed courses.

Note that this sequence was prepared based on course scheduling at the time of publication and may change during your studies.

First Year

Mathematics 1410

One of: **Mathematics 1560** or **Mathematics 1565**

One of: **Mathematics 2560** or **Mathematics 2565**

Statistics 1770

Concentration course

Concentration course

Lib Ed Requirement course

Lib Ed Requirement course

Lib Ed Requirement course

Lib Ed Requirement course

Second Year

Computer Science 1620

One of: **Statistics 2780** or **Economics 2900**

Statistics Elective

Concentration course

Concentration course

Concentration course or Elective

Concentration course or Elective

Lib Ed Requirement course

Lib Ed Requirement course

Elective

Third Year

Statistics 3500

Statistics 3510

Statistics 3000/4000 level

Concentration course

Concentration course

Concentration course

Elective 3000/4000 level

Elective 3000/4000 level

Elective

Elective

Fourth Year

Statistics 4000 level

Concentration course

Concentration course

Concentration course

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective 3000/4000 level

Elective

Note: Courses in bold in Years 1 and 2 of the sample sequence are prerequisite(s) for required courses and should be completed early in your program. Students are advised to review the prerequisites for elective courses within the major and plan accordingly.

The above sequence only lists 10 concentration courses (suitable for the Concentration in Geography or Economics). Students completing the 12-course Concentration in Psychology need to replace 2 Electives above with concentration courses.