University of Lethbridge

Calendar Year: 2026/2027

PROGRAM PLANNING GUIDE

Name:_____

ID: | | | | | | | | | |

Post-Diploma Bachelor of Science

Computer Science

Computer science is the study of algorithms and data structures and their applications in designing new and efficient solutions to industrial, technological, environmental or social problems. Learn to tackle difficult problems using a variety of high-tech tools and approaches, and effectively communicate your expertise to others by coupling your technical learning with a solid grounding in liberal education. You'll gain both theoretical knowledge and practical experience, including access to state-of-the-art hardware and software in our three computer labs whenever you need to use them.

What determines my program requirements?

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

Calendar Year: 2026/2027 - 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): Computer Science

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

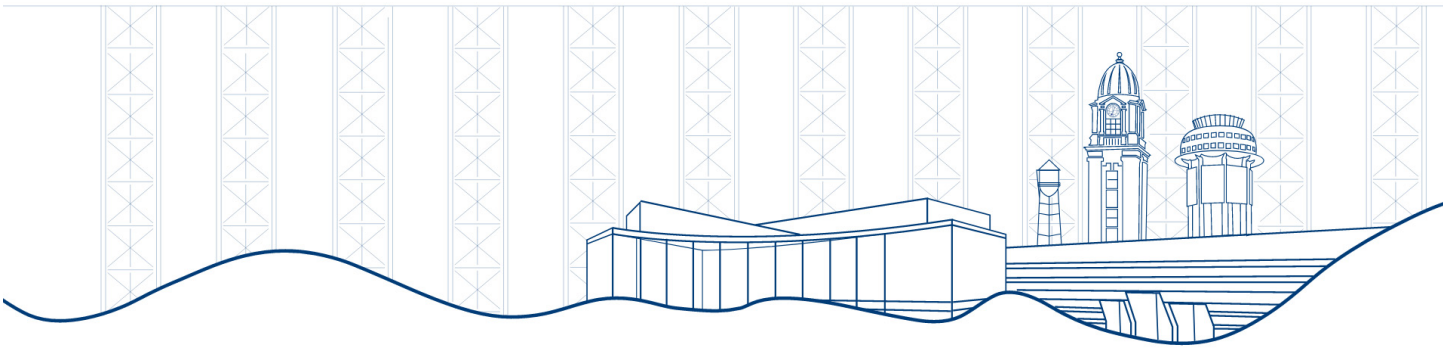
What supports are available to students?

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 17, 2026

Contact an Academic Advisor (www.ulethbridge.ca/ross/academic-advising) for advising information

PROGRAM REQUIREMENTS (2026/2027)

Required courses and notes

Name:_____

ID: | | | | | | | | | |

Progam Requirements (20 Courses)

Students must complete at least 20 courses (60.0 credit hours) from disciplines offered by the Faculty of Arts and Science, Faculty of Fine Arts, or School of Liberal Education (i.e. no courses labelled ACCT, AGEM, AMHC, CDEV, CRED, DGTR, EDUC, FINC, GLBU, HLSC, HRLR, IGBM, INHL, MGT, MKTG, NURS, PUBH, or TREC), as follows, with a minimum GPA of 2.00.

Required core (12 courses):

_____ **1.** Computer Science 1820 - Discrete Structures
_____ **2.** Computer Science 2720 - Practical Software Development
_____ **3.** Computer Science 3615 - Computer Architecture
_____ **4.** Computer Science 3620 - Data Structures and Algorithms
_____ **5.** Computer Science 3740 - Programming Languages
_____ **6.** Mathematics 2000 - Mathematical Concepts
_____ **7.-10.** [1] Four additional courses (12.0 credit hours) in Computer Science at the 3000/4000 level

_____ 7._____
_____ 8._____
_____ 9._____
_____ 10._____

_____ **11.-12.** Two courses (6.0 credit hours) in Computer Science at the 4000 level, excluding Computer Science 4850 (Topics), Computer Science 4980 (Applied Studies), and Computer Science 4990 (Independent Study).

_____ 11._____
_____ 12._____

Electives (eight courses):

_____ **13.-16.** Four courses (12.0 credit hours) from List I: Fine Arts and Humanities

_____ 13._____
_____ 14._____
_____ 15._____
_____ 16._____

_____ **17.-20.** Four courses (12.0 credit hours) from List II: Social Sciences

_____ 17._____
_____ 18._____
_____ 19._____
_____ 20._____

Notes

[1] One of the additional 3000-level Computer Science courses may be replaced by a course from the following list:
Physics 3900 - Intermediate Experimental Physics (Series) (Digital Electronics)
Any 3000/4000-level Mathematics course

Courses labeled as "electives" may be used towards a minor if a minor is chosen.

To determine if a given course has a Fine Arts and Humanities designation or a Social Science designation, see List I: Fine Arts and Humanities Courses and List II: Social Science Courses (see **School of Liberal Education** in the 2026/2027 University of Lethbridge Calendar, www.ulethbridge.ca/ross/academic-calendar).

No more than two Independent Study courses (3990 or 4990; 6.0 credit hours) may be counted towards the program.

Students may find that their diploma courses may overlap in content with some course offerings in the Computer Science program. However, the Department's offerings will often differ in focus and emphasis from diploma course offerings that bear superficially similar course descriptions. Students who have reservations about apparent duplication of offerings of Computer Science Electives studied in their diploma programs are encouraged to pursue other Elective offerings from the Department.

Students will be expected to have a working knowledge of the programming languages used by the Department in the delivery of Computer Science 1620 and Computer Science 2620. A student without this background will be expected to remedy any programming language deficiencies.

RECOMMENDED SEQUENCING PLAN (2026/2027)

Recommended Course Sequence

Name:_____

ID: | | | | | | | | | |

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

Computer Science 1820
Computer Science 2720
Computer Science 3620
Computer Science 3000/4000 level
Computer Science 3000/4000 level
Mathematics 2000
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course

Second Year

Computer Science 3615
Computer Science 3740
Computer Science 4000 level
Computer Science 4000 level
Computer Science 3000/4000 level
Computer Science 3000/4000 level
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course
Lib Ed Requirement course

Note: Courses in bold in 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.
Mathematics 2000 should be taken as early as possible (in Year One, if course scheduling permits), to derive maximum benefit from the course for the remainder of the program.