

University of  
Lethbridge



## Program Planning Guide

Name: \_\_\_\_\_

ID: \_\_\_\_\_

Calendar Year: 2021/2022

**Major in Computer Science:**

[www.uleth.ca/artsci/math-computer-science](http://www.uleth.ca/artsci/math-computer-science)

**Academic Calendar:**

[www.uleth.ca/ross/academic-calendar](http://www.uleth.ca/ross/academic-calendar)

**High School Admission Requirements:**

[www.uleth.ca/ross/admissions/undergrad/high-school](http://www.uleth.ca/ross/admissions/undergrad/high-school)

**Current and Past Program Planning Guides:**

[www.uleth.ca/ross/ppgs](http://www.uleth.ca/ross/ppgs)

**Co-operative Education:**

[www.uleth.ca/career-bridge/co-operative-education](http://www.uleth.ca/career-bridge/co-operative-education)

**Faculty of Arts and Science Advising:**

[www.uleth.ca/artsci/advising](http://www.uleth.ca/artsci/advising)  
artsci.advising@uleth.ca  
403-329-5106  
M2102

**Post-Diploma Bachelor of Science**  
**Computer Science**

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 ([www.uleth.ca/ross/academic-advising](http://www.uleth.ca/ross/academic-advising)) for advising information.

**Name :** \_\_\_\_\_

**ID :** \_\_\_\_\_

**Program Requirements**

Completion of 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 ABHL, ACCT, ADCS, AGEM, CDEV, CRED, EDUC, FINC, HLSC, HRLR, IGBM, IMGT, MGT, MKTG, NURS, PUBH, or TREC) with a grade point average of at least 2.00.

**Required core (12 courses)**

- \_\_\_\_\_ Computer Science 1820 - Discrete Structures
- \_\_\_\_\_ Computer Science 2720 - Practical Software Development
- \_\_\_\_\_ Computer Science 3615 - Computer Architecture
- \_\_\_\_\_ Computer Science 3620 - Data Structures and Algorithms
- \_\_\_\_\_ Computer Science 3740 - Programming Languages
- \_\_\_\_\_ Mathematics 2000 - Mathematical Concepts
- \_\_\_\_\_ <sup>1</sup> Four additional courses (12.0 credit hours) in Computer Science at the 3000/4000 level
  1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_
- \_\_\_\_\_ 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).
  1. \_\_\_\_\_
  2. \_\_\_\_\_

**Electives (eight courses):**

- \_\_\_\_\_ Four courses (12.0 credit hours) from List I: Fine Arts and Humanities
  1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_
- \_\_\_\_\_ Four courses (12.0 credit hours) from List II: Social Sciences
  1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
  4. \_\_\_\_\_

**Notes**

<sup>1</sup>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 (refer to the 2021/2022 University of Lethbridge Calendar, p. 79).

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.

## Sample Sequencing Plan

Shown below is a sample sequence of courses for your degree. Consult timetables for course offerings, prerequisites, and corequisites before registering each term. 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**

Computer Science 1820  
 Computer Science 2720<sup>1</sup>  
 Computer Science 3000/4000 level  
 Lib Ed Requirement course  
 Lib Ed Requirement course

### **Year 2, Fall**

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

### **Year 1, Spring**

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

### **Year 2, Spring**

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

<sup>1</sup> Computer Science 2720 may be completed in Year 2, Spring.

**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.

*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.*



**[www.ulethbridge.ca](http://www.ulethbridge.ca)**

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