



Program Planning Guide

Current and past Program Planning Guides are available on the UofL website at www.uleth.ca/ross/ppgs/ppg.html

Calendar Year: 2011/2012

Faculty: Arts & Science

About the Post-Diploma Bachelor of Science (B.Sc.) in Computer Science Program

The Post-Diploma Bachelor of Science (B.Sc.) in Computer Science program is directed toward graduates of approved two-year college diploma programs in Computer System Technology or Computer Information Technology. Graduates of other diploma programs in these areas will also be considered.

Approved Two-Year College Diplomas

At the time of printing (March 2011), the following two-year college diplomas have been approved:

Algonquin College of Applied Arts and Technology

Computer Engineering Technology

Camosun College

Computer Systems Technology

Centennial College

Computer Programmer/Analyst (*three-year diploma*)

Century College of Art and Business

E-Business Information Technology (*formerly E-Commerce Information Technology*) (*prior to 2006*)

Douglas College

Computer Information Systems

Durham College

Computer Systems Technology

Georgian College of Applied Arts and Technology

* Computer Programmer/Co-op

* Computer Programmer/Analyst

* *College graduates must include in their diploma: CSC 2171, 2289 and 2298.*

Grande Prairie Regional College

Computer Systems Technology

Humber College

Computer Programmer
Computer Programmer Analyst
Computer Engineering Technology

Keyano College

Computer Information Systems

Kwantlen Polytechnic University

Computer Information Systems

Lakeland College

Computer Systems Technology (*prior to 2007*)

Lethbridge College

Computer Information Technology

Loyalist College

Computer Engineering Technician/Technology
Computer Programmer/Analyst

Medicine Hat College

Information Technology (Software and Internet Development major)
Information Technology (Programming major) (*prior to 2007*)

Mount Royal University

Computer Information Systems (*prior to 2007*)

Northern Alberta Institute of Technology (NAIT)

Computer Systems Technology

Okanagan College

Computer Information Systems

Red Deer College

Computer Systems Technology

Saskatchewan Institute of Applied Science and Technology (SIASST)

Computer Information Systems
Computer Systems Technology

Sheridan Institute of Technology and Advanced Learning

Computer Science Technology

Southern Alberta Institute of Technology (SAIT)

Information Technology (Software Development major)
Computer Technology (*prior to 2008*)

St. Lawrence College

Computer Networking and Technical Support
Computer Programmer Analyst

For a complete listing of approved diploma programs, see UofL's Post-Diploma Degree Programs website: www.uleth.ca/postdiploma

Co-operative Education A Co-op option, requiring three work terms, is available. Students interested in the Co-operative Education/ Internship program should contact the Coordinator of Co-operative Education in the Career Resources Centre (AH154 | phone: 403-382-7154) for further information.

Program Requirements The post-diploma B.Sc. degree with a major in Computer Science requires 20 semester courses with a minimum cumulative grade point average of 2.00.

Residence Requirement All 20 courses in the Post-Diploma program must be University of Lethbridge courses.

Program Worksheet

Name : _____ **ID :** _____

General requirements:

Successful completion of at least 20 courses (as indicated below) with a cumulative grade point average of at least 2.00:

_____ 1-8. Completion of EIGHT courses from Lists I and II for the General Liberal Education Requirement as follows:

_____ a. At least four courses from List I - Fine Arts and Humanities courses:

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

and

_____ b. At least four courses from List II - Social Science courses:

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

and

_____ c. At least one of the above eight courses must be at the 2000 level or higher.

Note: For complete Lists I, II, and III for the General Liberal Education Requirement see the 2011/2012 Calendar, Part 4, p. 85. List III: Science Courses will be satisfied via the major requirements listed below.

_____ 9-20. 12 courses for the Computer Science major, as listed below.

Requirements for the Computer Science Major:

A minimum of 12 courses, including 11 courses in Computer Science and one required cognate.

- _____ 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

_____ 6-11. Six additional 3000/4000-level Computer Science courses, at least one of which must be a regularly offered 4000-level course (excluding Computer Science 4850 - Topics in Computer Science, Computer Science 4980 - Applied Studies, and Computer Science 4990 - Independent Study).

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____ (4000 level)

One of the additional 3000-level 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

Required cognate:

_____ 12. Mathematics 2000 - Mathematical Concepts

Note: *Not more than eight courses may be taken at the 0100/1000 level for credit toward the degree. Language courses are offered in the 0100-1990 range. Only the first course in the range counts toward this limit in the language subjects of French, German, Greek, Japanese, Latin and Spanish. Only one of Economics 1010 and 1012 will be counted toward this limit. Only one of Biology 1010 and 1020 will be counted toward this limit. Only one of Geography 1000 and Geography 1200 will be counted toward this limit.*

Not more than two Independent Study courses may be taken for credit toward the degree.

Students may find that their diploma courses may overlap in content some course offerings in the Computer Science program. However, the offerings of the Department of Mathematics and Computer Science 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.

The curriculum for the post-diploma B.Sc. in Computer Science is designed to offer complementary training in Computer Science to students with previous technical training. In approving the college diploma, the Department is implicitly acknowledging that students have completed the equivalent of Computer Science 1620, Computer Science 2610, and Computer Science 2620 as part of their diploma program.

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. If you follow this plan, you should be able to graduate in two 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</p> <p>Computer Science 1820 Computer Science 2720 Computer Science 3000 level GLER course (List I) GLER course (List II)</p> <p>Year 2, Fall</p> <p>Computer Science 3740 Computer Science 3000/4000 level Computer Science 3000/4000 level GLER course (List I) GLER course (List II)</p>	<p>Year 1, Spring</p> <p>Computer Science 3615 Computer Science 3620 Computer Science 3000 level Mathematics 2000 (<i>required cognate</i>) GLER course (List I)</p> <p>Year 2, Spring</p> <p>Computer Science 4000 level Computer Science 3000/4000 level GLER course (List I) GLER course (List II) GLER course (List II)</p>
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Note: *The required Mathematics cognate 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.*

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 2011/2012 University of Lethbridge Calendar, Part 4 - Academic Regulations (p. 85) for complete information.

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 20 courses from any one department).

Cognate: A course from a related discipline deemed to complement the chosen area of study and to encompass knowledge and skills essential to that area.



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