
CSD-2354 Programming C#.NET

Computer Studies

Course Number: CSD-2354	Co-Requisites: N/A	Pre-Requisites: CSD-1133 and CSD-1233 and CSD-2206 and CSD-1113
Prepared by:	Jim Cooper, Coordinator	
Approved by:	Chris Slade, Senior Dean	
Approval Date:	Wednesday, June 16, 2021	
Approved for Academic Year:	2021-2022	
Credit Weight:	4.00	

Course Description

The C# programming language is introduced. Students (1) create, test, and debug programs using a top-down modernized approach; (2) implement decision and repetitive structures and functions to control program flow; (3) formulate object-oriented designs using classes, instance variables and methods and constructors; (4) evaluate, create and analyze objects including strings and arrays. Microsoft Visual Studio is used for program development.

Course Learning Outcomes/Course Objectives

- 1. Create, test, and debug programs using a top-down modernized approach;**
 - 1.1 Examine basic computing concepts
 - 1.2 Survey C# history and how it is constructed.
 - 1.3 Classify the elements of a C# program.
 - 1.4 Evaluate the program development process
- 2. Implement decision and repetitive structures and functions to control program flow.**
 - 2.1 Name C# syntax.
 - 2.2 Use integer variables and constants.
 - 2.3 Examine the assignment statement and arithmetic expressions.
 - 2.4 Formulate operator precedence, methods and parameters.
 - 2.5 Learn the basic sequence, selection, and repetition statements for a general purpose programming language.
 - 2.6 Formulate simple debugging techniques.
 - 2.7 Create software using an iterative development cycle.

3. Formulate object-oriented designs using classes, instance variables and methods and constructors;

- 3.1 Demonstrate the knowledge of an object.
- 3.2 Understand that a class defines an object.
- 3.3 Construct a class, including instance variables and methods, and constructors.
- 3.4 Create and assess objects.
- 3.5 Understand that C# primitive type variables hold values, and object oriented variables hold references.
- 3.6 Differentiate between class variables and methods and instance variables and methods.

4. Evaluate, create and analyze objects including strings and arrays using Microsoft Visual Studio.

- 4.1 Identify and analyze the string class.
- 4.2 Compare reference types.
- 4.3 Evaluate the composition relationship.
- 4.4 Test interfaces to develop flexible designs.
- 4.5 Create and use C# arrays.
- 4.6 Understand memory allocation for arrays and arrays of objects.
- 4.7 Utilize multidimensional arrays.
- 4.8 Create, debug and test code using Microsoft Visual Studio.

Relationship to Essential Employability Skills

This course contributes to your program by helping you achieve the following Essential Employability Skills:

- EES 1.1 Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience. (T, A,)
- EES 1.2 Respond to written, spoken or visual messages in a manner that ensures effective communication. (T, A,)
- EES 2.3 Execute mathematical operations accurately. (T, A,)
- EES 3.4 Apply a systematic approach to solve problems. (T, A,)
- EES 3.5 Use a variety of thinking skills to anticipate and solve problems. (T, A,)
- EES 4.6 Locate, select, organize and document information using appropriate technology and information systems. (T, A,)
- EES 4.7 Analyze, evaluate and apply relevant information from a variety of sources. (T, A,)
- EES 6.10 Manage the use of time and other resources to complete projects. (T, A,)
- EES 6.11 Take responsibility for one's own actions, decisions and consequences. (T, A,)

Relationship to Vocational Learning Outcomes

This course provides the opportunity for you to achieve the following Program Vocational Learning Outcomes (VLO) which will be taught and evaluated at an taught (T), assessed (A) or culminating performance (CP) level:

CPCM - Computer Programmer

- VLO 1 Identify, analyze, develop, implement, verify and document the requirements for a computing environment. (T, A)
- VLO 5 Communicate and collaborate with team members and stakeholders to ensure effective working relationships. (T, A)
- VLO 6 Select and apply strategies for personal and professional development to enhance work performance. (T, A)

CPCT - Computer Programmer

- VLO 1 Identify, analyze, develop, implement, verify and document the requirements for a computing environment. (T, A)
- VLO 5 Communicate and collaborate with team members and stakeholders to ensure effective working relationships (T, A)
- VLO 6 Select and apply strategies for personal and professional development to enhance work performance. (T, A)

CPRO - Computer Programmer

- VLO 1 Identify, analyze, develop, implement, verify and document the requirements for a computing environment. (T, A)
- VLO 5 Communicate and collaborate with team members and stakeholders to ensure effective working relationships. (T, A)
- VLO 6 Select and apply strategies for personal and professional development to enhance work performance. (T, A)

CSAC - Computer Software and Database Development

- VLO 3 Deploy software applications for multiple devices and multiple operating systems. (T, A)

CSAM - Computer Software and Database Development

- VLO 3 Deploy software applications for multiple devices and multiple operating systems. (T, A)

CSAT - Computer Software and Database Development

- VLO 3 Deploy software applications for multiple devices and multiple operating systems. (T, A)

Learning Resources

Boehm, A and Murach, J (2016) Murach's C# 2015, Murach Books, ISBN 978-1-890774-94-3

Student Evaluation

Assignments 5 @ 5%

Tests 3 @ 25%

Grade Scheme

The round off mathematical principle will be used. Percentages are converted to letter grades and grade points as follows:

Mark (%)	Grade	Grade Point	Mark (%)	Grade	Grade Point
94-100	A+	4.0	67-69	C+	2.3
87-93	A	3.7	63-66	C	2.0
80-86	A-	3.5	60-62	C-	1.7
77-79	B+	3.2	50-59	D	1.0
73-76	B	3.0	0-49	F	0.0
70-72	B-	2.7			

Prior Learning Assessment and Recognition

Students who wish to apply for prior learning assessment and recognition (PLAR) need to demonstrate competency at a post-secondary level in all of the course learning requirements outlined above. Evidence of learning achievement for PLAR candidates includes:

- Other: Students interested in PLAR consideration are advised to discuss details with the program coordinator.

Course Related Information

Courses with CSD course codes have program policies related to evaluations and classroom conduct. These program policies for the CSD courses are available in D2L and students are expected to be aware of these policies.

College Related Information

Academic Integrity

Lambton College is committed to high ethical standards in all academic activities within the College, including research, reporting and learning assessment (e.g. tests, lab reports, essays).

The cornerstone of academic integrity and professional reputation is principled conduct. All scholastic and academic activity must be free of all forms of academic dishonesty, including copying, plagiarism and cheating.

Lambton College will not tolerate any academic dishonesty, a position reflected in Lambton College policies. Students should be familiar with the Students Rights and Responsibilities Policy, located at lambtoncollege.ca. The policy states details concerning academic dishonesty and the penalties for dishonesty and unethical conduct.

Questions regarding this policy, or requests for additional clarification, should be directed to the Lambton College Student Success Department.

Students with Disabilities

If you are a student with a disability please identify your needs to the professor and/or the Accessibility Centre so that support services can be arranged for you. You can do this by making an appointment at the Accessibility Centre or by arranging a personal interview with the professor to discuss your needs.

Student Rights and Responsibility Policy

Acceptable behaviour in class is established by the instructor and is expected of all students. Any form of misbehaviour, harassment or violence will not be tolerated. Action will be taken as outlined in Lambton College policy.

Date of Withdrawal without Academic Penalty

Please consult the Academic Regulations and Registrar's published dates.

Waiver of Responsibility

Every attempt has been made to ensure the accuracy of this information as of the date of publication. The content may be modified, without notice, as deemed appropriate by the College.

Students should note policies may differ depending on the location of course offering. Please refer to campus location specific policies:

LAMBTON COLLEGE POLICIES – applicable to all Lambton College students.

- Student Rights & Responsibilities & Discipline policy (2000-5-1)
- Test & Exam Writing Protocol (2000-1-6)
- Evaluation of Students (2000-1-3)
- (<https://www.lambtoncollege.ca/custom/Pages/Policies/Policies.aspx>)

CESTAR COLLEGE:

- https://www.lambtoncollege.ca/Programs/International/Lambton_in_Toronto/Student_Policies/

QUEENS COLLEGE:

- https://www.lambtoncollege.ca/Programs/International/Lambton_in_Mississauga/Student_Policies/

Note: It is the student's responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.