



Cameron Heights Collegiate Institute

301 Charles Street E., Kitchener, Ontario N2G 2P8 (519)-578-8330 www.chci.wrdsb.on.ca

Subject	Grade	Level	Code	Prerequisite
Computer Science	11	University/College	ICS3UI/ICS3CI	None

Course Description

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

Ministry Document

http://www.edu.gov.on.ca/eng/curriculum/secondary/computer10to12_2008.pdf

Unit of Study	Overall Expectations* (Essential Understandings)	Assessment (All term marks approximate)
Input/Output and Branching	<ul style="list-style-type: none"> Relate the specifications of computer components to user requirements Use proper code maintenance techniques and conventions when creating computer programs Demonstrate the ability to use control structures and simple algorithms in computer programs 	<ul style="list-style-type: none"> Project – 10 % Test – 10 %
Repetition	<ul style="list-style-type: none"> Design software solutions to meet a variety of challenges Demonstrate an understanding of the software development process 	<ul style="list-style-type: none"> Project – 10 % Test – 10 %
Functions	<ul style="list-style-type: none"> Demonstrate the ability to use subprograms within computer programs Design algorithms according to specifications Use a variety of problem-solving strategies to solve different types of problems independently and as part of a team 	<ul style="list-style-type: none"> Project – 10 % Test – 10 %
Memory Management, Arrays, File and Data Structures	<ul style="list-style-type: none"> Demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs Apply a software development life-cycle model to a software development project Use appropriate file maintenance practices to organize and safeguard data 	<ul style="list-style-type: none"> Project – 10 %
Summative Project	Single project to assess all overall expectations within the units of study	30% for final project

*All overall expectations carry forward to subsequent units.

Overall Expectations for Every Unit:

- Describe policies on computer use that promote environmental stewardship and sustainability
- Demonstrate an understanding of emerging areas of computer science research
- Describe postsecondary education and career prospects related to computer studies

College and University Courses:

- The college (3CI) and university (3UI) courses have different assessment levels for assignments and tests with similar content