

**SOUTH CARLETON HIGH SCHOOL**

Ottawa-Carleton District School Board

**STUDENT OUTLINE****ICS3U**

Introduction to Computer Science

Grade 11

Credit Value: 1.0

Hours: 110

Prerequisite: none

**Course Overview**

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.

**Expectations**

Unit Title	Overall Expectations
Programming Concepts and Skills	<b>A1.</b> use constants and variables, including values, correctly in computer programs <b>A2.</b> use sequence, selection, and repetition control structures to create programming solutions
Software Development	<b>B1.</b> use the input-process-output model to solve programming problems <b>B2.</b> describe the phases, milestones and products of a software development life cycle
Computer Environments and Systems	<b>C1.</b> describe the functions and features of internal components of a computer <b>C2.</b> describe the differences between applications, programming languages and operating systems
Topics in Computer Science	<b>D1.</b> identify measures that help reduce impact of computers on the environment <b>D2.</b> explain the need for an acceptable-use policy for using computers at school and at work

**Accommodations for Exceptional Students**

The technology department makes every effort to accommodate the identified needs of exceptional (IPRC'd) students and will attempt to differentiate curriculum delivery methods, student modes of expression, and assessment methods as recommended by the student's individual education plan (IEP).

**Teaching Strategies**

Units are activity based. Teacher demonstrations and research activities provide the students with the necessary terminology and methodology to complete the activities. Classroom discussions, collaborative and co-operative learning, research, report writing and taking notes will assist students in meeting the course expectations. Upon completion of this course, students will demonstrate the ability to apply skills and knowledge to practical situations that involve the completion of work assignments and problem-solving activities. Students will be expected to use the Internet to find resources for their projects.

**Resources/Textbooks/Technological Integration**

A series of in-house workbooks and electronic resources.

**Evaluation**

Term Report	Final Report
Students will be evaluated on the overall expectations listed above. Evaluations will cover a balance of Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation.	Term 70% Summative task 30% <b>100%</b>
<b>Key Evaluation Dates:</b>	
Technological Studies summatives will come due within the school's Summative and Evaluation Period between January 6 <sup>th</sup> and 31 <sup>st</sup> and June 8 <sup>th</sup> to June 26 <sup>th</sup> .	
Absence from evaluations during these dates must be substantiated with a medical certificate or equivalent documentation as approved by administration.	

**Classroom Management**

Due to the nature of the technology classroom, no food or beverages, jackets or bags can be allowed. Adherence to school Internet use policy will be strictly enforced. Noncompliance will result in the removal of computer privileges for the students for an indeterminate period of time.

More information on South Carleton High School's policy on Assessment and Evaluation and on Academic Integrity can be accessed on our school website [www.southcarleton.ca](http://www.southcarleton.ca)