SOUTH CARLETON HIGH SCHOOL
Ottawa-Carleton District School Board
STUDENT OUTLINE
TEJ2O
Computer Engineering Technology
Grade 10

Credit Value: 1.0 Hours: 110 Prerequisite: none

Course Overview
This course examines computer hardware and the control of external components from an engineering perspective. Students will learn how to solve problems, and will study the functions of key computer components and peripherals, logic gates, fundamental programming concepts, internal numbering and character representation systems, and operating systems and networks. Students will also develop an awareness of potential careers in the field of computer engineering.

Expectations

Unit Title	Overall Expectations
Computer Logic	**A1**. describe the relationship between the binary number system and computer logic; **A2**. define a standard way of representing characters in binary code; **A3**. describe the function of the fundamental logic gates, including the function of each pin: AND,NAND,OR,NOR,XOR, XNOR, and NOT.
Hardware, Interfaces, and Networking Systems	**B1.** use precise terminology in relation to all hardware, interfaces, and networking systems; **B2**. identify the basic internal and external components of a computer; **B3**. describe the primary function of each basic component; **B4**. identify computer internals and peripheral devices and describe their relationship.
Programming Concepts	**C1**. define constants, variables, expressions, and assignment statements, including the order in which the operations are performed; **C2**. describe how computers store and work with different types of data, including numbers and characters.

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 Summative task	70% 30% **100%**

Key Evaluation Dates:
Technological Studies summatives will come due within the school's Summative and Evaluation Period between January 6th and 31st and June 8th to June 30th

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