



LOCKERBY COMPOSITE SCHOOL

Computer Engineering Technology (TEJ 3M)
Mr. Patrick Campeau
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Course Outline

Pathway	College/University	Credit Value	1
Prerequisite Course	None	Google Classroom Code	Available in class
Textbook	None	Website	ictedu.ca

Curriculum Description of Computer Technology

Computer technology is an expanding branch of engineering, with roots in both electrical engineering and computer science. It includes the related areas of computer hardware and software; computer interfacing, programming, and networking; analog and digital electronics; and robotics. Computer technicians, technologists, and engineers work in every sector of society, in careers ranging from building and repairing computer systems to designing and installing computer networks, to designing and building prototype robots and electronic devices.

Students taking computer technology courses will learn to work safely with computer equipment, electronic circuits, and robotic devices, and will explore the Essential Skills and work habits that are important for success in computer technology. Computer technology courses prepare students for apprenticeship, further study at college or university, or entry into the workplace directly after graduation.

The approved emphasis areas for computer technology are:

- Interfacing
- Electronics
- Networking
- Robotics and Control System
- Computer Repair
- Information Technology Support
- Network Support

Course Description

This course examines computer systems and control of external devices. Students will assemble computers and small networks by installing and configuring appropriate hardware and software. Students will develop knowledge and skills in electronics, robotics, programming, and networks, and will build systems that use computer programs and interfaces to control and/or respond to external devices. Students will develop an awareness of related environmental and societal issues, and will learn about college and university programs leading to careers in computer technology.

Curriculum Strands

The curriculum strands are the following:

- A – Computer Technology Fundamentals
- B – Computer Technology Skills
- C – Technology, The Environment, and Society
- D – Professional Practice and Career Opportunities

Units of Study

Here is a list of possible units:

- Electricity
- Binary
- Boolean Logic
- Digital Design
- Robotics
- Mechanisms
- Python Programming
- Electronics
- Arduino

Achievement Chart Categories

Achievement Category	Weightings	Assessment
Knowledge/Understanding	25 %	Assignments, Quizzes, Projects, Performance Tasks, ...
Thinking/Inquiry	25 %	Assignments, Quizzes, Projects, Performance Tasks, ...
Communication	25 %	Assignments, Quizzes, Projects, Performance Tasks, ...
Application	25 %	Assignments, Quizzes, Projects, Performance Tasks, ...

TERM **70%**
FINAL EVALUATION **30%**

The final evaluation will be a project of your choice related to the course material. The project will have to be approved by your teacher before starting to work on it.

Classroom Requirements

- Binder & Paper
- Pen / pencil
- Calculator
- Device (if you have one)

Learning Skills and Work Habits	Sample Behaviours
Responsibility	<p>The student:</p> <ul style="list-style-type: none"> ● fulfils responsibilities and commitments within the learning environment; ● completes and submits class work, homework, and assignments according to agreed-upon timelines; ● takes responsibility for and manages own behaviour.
Organization	<p>The student:</p> <ul style="list-style-type: none"> ● devises and follows a plan and process for completing work and tasks; ● establishes priorities and manages time to complete tasks and achieve goals; ● identifies, gathers, evaluates, and uses information, technology, and resources to complete tasks.
Independent Work	<p>The student:</p> <ul style="list-style-type: none"> ● independently monitors, assesses, and revises plans to complete tasks and meet goals; ● uses class time appropriately to complete tasks; ● follows instructions with minimal supervision.
Collaboration	<p>The student:</p> <ul style="list-style-type: none"> ● accepts various roles and an equitable share of work in a group; ● responds positively to the ideas, opinions, values, and traditions of others; ● builds healthy peer-to-peer relationships through personal and media-assisted interactions; ● works with others to resolve conflicts and build consensus to achieve group goals; ● shares information, resources, and expertise and promotes critical thinking to solve problems and make decisions.
Initiative	<p>The student:</p> <ul style="list-style-type: none"> ● looks for and acts on new ideas and opportunities for learning; ● demonstrates the capacity for innovation and a willingness to take risks; ● demonstrates curiosity and interest in learning; ● approaches new tasks with a positive attitude; ● recognizes and advocates appropriately for the rights of self and others.
Self-regulation	<p>The student:</p> <ul style="list-style-type: none"> ● sets own individual goals and monitors progress towards achieving them; ● seeks clarification or assistance when needed; ● assesses and reflects critically on own strengths, needs, and interests; ● identifies learning opportunities, choices, and strategies to meet personal needs and achieve goals; ● perseveres and makes an effort when responding to challenges.

Attendance & Missed Work

Attendance is a significant part of the evaluation process. Ministry of Education Act Regulation 298 requires: "students to attend classes punctually on a regular basis and take such tests and examinations as may be required." A credit is granted upon the completion of 110-120 hours of classroom instruction. It is the responsibility of the guardian to communicate reasons for all absences with the main office. In the event of a scheduled assessment (i.e. tests, presentations, seminars), it is the guardian's responsibility to notify the main office and the teacher regarding the student's illness in advance of when the assessment is due. If prior communication does not occur, a Doctor's note must be provided within 48 hours of the scheduled assessment, or the student will receive a mark of zero.

Contacting Your Teacher

At school, Mr. Campeau can generally be found in room 101 or room 153.

Mr. Campeau can also be contacted by via email (campeap@rainbowschools.ca).