

<p>Course Description: Computer engineering technology examines computer systems and control of external devices. In this course, students learn how to assemble computers and small networks by installing and configuring appropriate hardware and software.</p> <p>Students complete the first half of CISCO IT Essentials: PC Hardware and Software as a preparation for CompTIA A+ Certification.</p> <p>Students will develop knowledge and skills in electronics, robotics, and programming, and will build systems that use computer programs and interfaces to control and/or respond to external devices. Students will also develop an awareness of related environmental and societal issues, and will learn about college and university programs leading to careers in computer technology.</p>	<p style="text-align: right;">Grade 11 - Mixed (University & College)</p> <p>Level:</p> <p>Credit Value: 1.0</p> <p>Prerequisite:</p> <p>Department: Technology Department</p> <hr/> <p>Course Fees: None</p>
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<p>Textbooks & Resources:</p> <ul style="list-style-type: none"> ● Growing Success: Assessment, Evaluation and Reporting in Ontario Schools ● The Ontario Curriculum Grade 11 and 12 Technological Education ● All CISCO resources can be found at their Networking Academy website http://netacad.com. There is no physical text-book for this course. ● Google Classroom will be used to distribute additional resources (docs and videos) and collect student work.
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<p>Course Evaluation: Student Evaluation consists of three components...</p>	
<p>1) Learning Skills & Work Habits:</p> <p>Students are evaluated on 6 Learning Skills & Work Habits. The 6 Essential Skills are:</p> <ul style="list-style-type: none"> ● Responsibility ● Organization ● Independent Work ● Collaboration ● Initiative ● Self-Regulation 	<p>These six attributes are evaluated on a scale of Excellent (E), Good (G), Satisfactory (S) & Needs Improvement (N) and reported on the report card. They are not included in the course mark, unless specified in the curriculum expectations.</p>
<hr/> <p>2) Course Mark (Assessment of Learning):</p> <p>Student performance standards for knowledge and skills are described in the curriculum Achievement Chart. The curriculum is assessed in four categories:</p> <ul style="list-style-type: none"> ● Knowledge 20% ● Thinking & Inquiry 20% ● Communication 20% ● Application 40% 	
<p>Evaluation of these four categories within this course will determine the course mark (100%).</p> <p>It is the student’s responsibility for submitting evidence of Learning.</p>	

<p>Course Conduct Policies: See Student Agenda.</p>
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Course Outline (Quadmester - Covid19)

Unit	Description	Approx Time	Unit Evaluation
IT Essentials	Introductions to Personal Computer Hardware PC Assembly Advanced Computer Hardware Preventive Maintenance and Troubleshooting Networking Concepts Applied Networking	($\frac{1}{3}$ course)	Research Quizzes Unit Test
Digital Logic	Logic Gates Circuit Schematics and Truth Tables Boolean Algebra Karnaugh Maps Design of Integrated Circuits	($\frac{1}{3}$ course)	Assignments Quizzes Unit Test
Electronics, Robotics and Programming	Basic Electronic Components Ohm's Law Wiring Schematics Basic Programming Concepts in C++ Interfacing with Arduino	($\frac{1}{3}$ course)	Assignments Quizzes Unit Test

Note: Order units are delivered may change due to student needs and resources available during the course.

General Information:

Academic Honesty: SATEC + TDSB Academic Honesty policy will apply.

Late Work: Late work, that has not been previously coordinated/discussed with the teacher, will be marked at the discretion of the teacher.

Field Trips: Due to Covid-19, there will be no field trips.

Recommended Resources: Google Classroom, CISCO Networking Academy

How to Seek Extra Help: Before, during and after class, and via email.

Certifications: IT Essentials Certificate

Safety Training: All students will complete safety training to the Teachers standards prior to use.