OTTAWA CATHOLIC SCHOOL BOARD	**Grade 11 Computer Engineering Technology TEJ3M**	Inspired Education. Inspiring Students.

Teacher: **Teacher Name**

Prerequisite Course: None

Description and Overall Expectations: 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.

Computer Technology Fundamentals: describe how computer components function, and discuss trends in the development of computer hardware; describe the functions of BIOSes and operating systems, and how they interact with each other and with computer hardware; describe the function of electronic components and the use of these components in control systems and other circuits, and calculate values for circuit components; describe network concepts, services, and security; demonstrate an understanding of the use of binary numbers, hexadecimal numbers, and Boolean algebra in computer logic and data processing.

Computer Technology Skills: build, configure, and maintain a computer system, and connect peripheral devices; set up, optimize, and back up a computer system; design, construct, create diagrams for, and troubleshoot electronic circuits and interfaces for control systems; design, install, configure, test, and troubleshoot networks; demonstrate an understanding of fundamental programming concepts, and develop a program that interacts with an external device.

Technology, the Environment, and Society: describe environmental issues related to the widespread use of computers and associated technologies; describe societal issues related to the widespread use of computers and associated technologies.

Professional Practice and Career Opportunities: demonstrate an understanding of relevant safety practices, standards, and legislation; describe ethical and security issues related to the use of computers; describe various careers related to computer technology and electronics, and the entry requirements for these careers.

Course Resources: Key resource(s) along with supplementary resources / digital tools and sites / passwords; include replacement cost for resources if lost/damaged.

Catholic Graduate Expectations: Our goal for all students is to experience an education based on our Catholic Graduate Expectations. **(**http://www.iceont.ca) We work in community to develop graduates that are:

- Discerning Believers Formed in the Catholic Faith Community
- Effective Communicators
- Reflective and Creative Thinkers
- Self-Directed, Responsible, Life-Long Learners
- Collaborative Contributors
- Caring Family Members
- Responsible Citizens

Assessment, Evaluation and Reporting: The primary purpose of assessment and evaluation is to improve student learning. Students will understand what is expected of them, using learning goals, and success criteria, based on the overall expectations. Feedback (self, peer, teacher) supports learning, and plays a critical role in academic achievement and success.

The development of learning skills and work habits is a key indicator of future success. The following learning skills and work habits will be developed, assessed, and reported during this course:

1.	Responsibility	fulfills responsibilities and commitments *(e.g. accepts and acts on feedback)*
2.	Organization	manages time to complete tasks and achieve goals *(e.g. meets goals, on time)*
3.	Independent work	uses class time appropriately to complete tasks *(e.g. monitors own learning)*
4.	Collaboration	works with others, promotes critical thinking *(e.g. provides feedback to peers)*
5.	Initiative	demonstrates curiosity and an interest in learning *(e.g. sets high goals)*
6.	Self-Regulation	sets goals, monitors progress towards achieving goals *(e.g. sets, reflects goals)*

Group work supports collaboration, an important 21st century skill. This will be assessed only as a learning skill. Homework may also be assessed as a learning skill. Evaluation completed in class will be based only on individual student work. Regular attendance is important to support group work, various forms of feedback, and to allow students to demonstrate evidence of their learning. Students are responsible for providing evidence of their own learning (with references where required), in class, within given timelines. Next steps in response to academic integrity issues, such as lack of work completion, plagiarism, or other forms of cheating, range from providing alternate opportunities, to a deduction of marks.

The achievement chart identifies four levels, based on achievement of the overall expectations:

Level 1	achievement falls below the provincial standard	(50-59%)
Level 2	achievement approaches the provincial standard	(60-69%)
Level 3	achievement is at the provincial standard	(70-79%)
Level 4	achievement surpasses the provincial standard	(80-100%)

The report card grade will be based on evidence of student performance, including observations, conversations and student products. Consideration will be given to more recent evidence (skill development) and the most consistent level of achievement.

Mark Breakdown:

Term Work (70%) will include a variety of assessment tasks designed to demonstrate students' development in their knowledge and understanding, thinking and inquiry, communication and application, of all overall expectations.

Summative evaluation (30%) takes place towards the end of the semester, is completed in class, and provides the final opportunity for students to demonstrate what they know, and the skills they have learned, based on the overall expectations. In Computer Technology TEJ3M, the summative evaluation will consist of a rich summative assessment task (30%).

Awarding of Course Credit: Students who demonstrate evidence of achievement of overall expectations, ***and*** earn a mark of 50% or greater, will earn one credit for the course with the following exception:

Students who do not complete their summative evaluation (exam and/or end of year summative task) will not earn their credit regardless of their mark.

<u>Student and Parent/Guardian Acknowledgement</u>

We have read the above course outline and are aware of the student responsibilities to attend class on a regular basis and to provide evidence of learning within the established timelines.

Student's Name (print): _____ Student's Signature: _____

Parent/Guardian Name (print):_____ Parent/Guardian Signature: _____