|  |  | **Course Outline and Evaluation Summary** | |  |
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|  | **Course Code**: TEJ3M  **Grade**: 11 University/College  **Title of Course**: Computer Engineering/Networking |  | |
|  | **Department**: Computer Studies, 416-395-3210 |  | |

| **Course Description** |
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| ***In this course, students will…***  This course examines computer systems and control of external devices in the field of computer networking. Students will study end-user and networking devices, design networks, and configure 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 in electronic communication. 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  (Reference: The Ontario Curriculum, Grades 11 and 12, Technological Education, Ontario Ministry of Education, 2009) |

| **Course Evaluation**  Course evaluations incorporate one or more of the achievement categories (KICA). A brief description of each category can be found [here](https://www.dcp.edu.gov.on.ca/en/assessment-evaluation/categories-of-knowledge-and-skills). The final grade is calculated using the weighted percentages below. | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Term Work:** | **A variety of tasks where you show your learning and have marks assigned using the Achievement Categories/Strands** | | **Summative**  **Evaluation:** | **Marked summative tasks which assess your learning on the entire course, CULMINATING TASK.** | |
| **70%** | 25% | Knowledge & Understanding | **30%** | 25% | Knowledge & Understanding |
| 20% | Thinking & Inquiry | 20% | Thinking & Inquiry |
| 35% | Application | 35% | Application |
| 20% | Communication | 20% | Communication |

| **Learning Skills** |
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| Learning skills provide Information to help students understand what skills, habits & behaviors are needed to work on to be successful. These are not connected with any numerical mark. A brief description of each skill can be found [here](http://www.edu.gov.on.ca/eng/policyfunding/growsuccess.pdf#page=17).  **Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation**  E – Excellent G – Good S – Satisfactory N – Needs Improvement |

| **Required Materials:** Any educational resource required for this course will be provided by the school. Students must be prepared to take notes during class and to follow all lesson processes and procedures. |
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| **School/Departmental/Classroom Expectations** |
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| **Attendance:** The student is expected to attend class on time. Parents/guardians will be contacted if lates/attendance becomes an issue/hindrance. If the student knows about an absence in advance, they should contact the teacher.  **Plagiarism/Cheating:** A mark of 0 will be assigned for any work submitted that does not belong to the student. A mark of 0 will be assigned to a student who was found to have cheated. Parents/guardians will be informed.  **Missed Work:** If a student is absent from class, (e.g. illness, sports team) it is **their** responsibility to find out what they have missed and to catch up. The student is responsible for completing all of the work that was missed due to an absence. If a student misses an assignment or test without a legitimate explanation and documentation *(for example a doctor’s note*), marks up to and including the full value of the evaluation may be deducted. Make-up tests must be arranged to be written.  **Late Work:** Late work may result in a deduction of marks up to and including the full value of the evaluation.  **Homework**:It is the students responsibility to complete all assignments and homework assigned by the teacher in a timely manner. |

| **Course Assessment Tasks** | | | |
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| ***Big Ideas*** | | ***Major Assignment(s) / Evaluation(s)*** | ***Estimated Duration*** |
| **The course is organized into 4 strands:**  **-Networking**  **-Electronics, Robotics and Computer Interfacing**  **-Data Representation and Digital Logic**  **-Careers and Post-Secondary Options**  **Course Content: (Topics may not be presented in order shown.)**  **1. Networking (30 Hours)**  **2. Electronic Circuits and Components (15 Hours)**  **3. Binary and Hexadecimal (5 Hours)**  **4. Digital Logic and Integrated Chips (20 Hours)**  **5. Using Arduino (20 Hours)**  **6. Careers and Post-Secondary Options (10 Hours)** | | **Hands-on Labs**  **Assignments**  **Topic tests**  **Self-assessment exercises and quizzes**  **Final test** | **Approx. 100 Hours** |