

	Ontario Ministry of Education www.edu.gov.on.ca/eng/		Toronto District School Board www.tdsb.on.ca		R.H. KING ACADEMY http://schools.tdsb.on.ca/rhking/
COURSE OF STUDY OUTLINE					
Department	<i>Computer Studies</i>	Course Type	<i>University/College</i>		
Teacher	<i>Mr. Raptou</i>	Grade	<i>12</i>		
Course Title	<i>Computer Technology</i>	Credit Value	<i>One</i>		
Course Code	<i>TEJ4M</i>	Prerequisites	<i>Grade 11 TEJ3M</i>		
Ministry Document	<i>The Ontario Curriculum. http://www.edu.gov.on.ca/eng/curriculum/secondary/computer10to12_2008.pdf</i>				
Learning Resources	<i>Course Electronic folder, Textbook, Student binder, Course Web site, Visual Studio Programming Environment, C# programming Language for Interfacing</i>				

TEJ4M COURSE: COMPUTER ENGINEERING

COURSE OVERVIEW – COMPUTER TECHNOLOGY, GRADE 12, UNIVERSITY/COLLEGE (TEJ4M)

A. COURSE DETAILS Course Description and Overview

This course extends students' understanding of computer systems and computer interfacing with external devices. Students will assemble computer systems by installing and configuring appropriate hardware and software, and will learn more about fundamental concepts of electronics, robotics, programming, and networks. Students will examine related environmental and societal issues, and will explore postsecondary pathways

B. OVERALL EXPECTATIONS

COMPUTER TECHNOLOGY FUNDAMENTALS	
UNIT	Expectation
Computer Hardware	demonstrate an understanding of internal buses and storage devices, and of advances in computer technology;
Computer Systems	demonstrate an understanding of system optimization and of permissions, attributes, firmware, and communication standards used in computer systems;
Electronics Robotics and Computer Interfacing	demonstrate an understanding of devices and electronic circuits in interfaces and control systems;
Networking	demonstrate an understanding of network address routing;
Data Representation and Digital Logic	demonstrate an understanding of computer logic circuits and the representation, manipulation, and transmission of data by computers.

COMPUTER TECHNOLOGY SKILLS	
UNIT	Expectation
Hardware Solutions	build computer systems and connection media to meet specific requirements, using appropriate procedures, tools, and equipment;
Computer Systems	maintain and troubleshoot a variety of computer hardware and software
Electronics Robotics and Computer Interfacing	design, build, test, and troubleshoot interfaces and other circuits that meet specific design requirements;
Networking setup and management	design, build, configure, maintain, and troubleshoot networks, and set up various network services for users;
Computer Programming	demonstrate an understanding of programming concepts, and create programs that interact with external devices.

TECHNOLOGY, THE ENVIRONMENT, AND SOCIETY	
UNIT	Expectation
Technology and the environment	analyse environmental issues related to the widespread use of computers and associated technologies, and apply strategies to reduce environmental harm from computer use;
Technology and Society	analyse societal issues related to the widespread use of computers and associated technologies.

PROFESSIONAL PRACTICE AND CAREER OPPORTUNITIES	
UNIT	Expectation
Health and Safety	explain the importance of safety standards and practices, and use appropriate techniques to avoid health and safety problems;
Ethics and Security	describe ethical and security issues related to the use of computers and related technology;
Career Opportunities	assess career opportunities related to computer technology and electronics, and explain the importance of postsecondary education and lifelong learning in the computer technology industry

C. CLASSROOM ROUTINES & PROCEDURES

1. Students must be in class at the start of each period, prepared to begin before the bell rings. Regular attendance and punctuality is a must. Get into the habit of writing down homework into your student planner. Prepare for each class by reading and doing the homework assigned by the teacher. Students are responsible for catching up on missed homework and in-class assignments. The student can expect up to six hours of homework and review in each 5-day school cycle. Additional time may be required as a result of the student's own challenges and ability to complete assignments.
2. All work submitted to the instructor shall be original work from the student. Plagiarism will immediately receive a zero and referred to the vice-principal.
3. Students will be evaluated on all course expectations. See the bottom of this page for an example of the evaluation criteria.

4. There will be three formal reporting periods. The Interim, Mid-term and Final reports will be distributed according to administration (only the last two reports will receive a numerical grade.) The Student mark is a cumulative mark representing the standing of the student at the end of the reporting period. Comments will be made around student performance, learning skills, attendance and lates.

5. If a student must be away, he or she must arrange to write the test in advance. Documented explanations will be given due consideration for missed tests. It is ESSENTIAL that you communicate with the teacher prior to the test that you will be away. Arrangements will be made to write the test at a mutually agreeable time.

6. Assignments are due at the beginning of the class on the due date, all assignments handed in past the ultimate due date (the last date the assignment will be accepted) will no longer be accepted.

7. A final exam (120 minutes) will be a required component of this course. It will be worth 20% of the course mark

D. OVERALL EVALUATION OUTLINE

Tests / Quizzes	30%
Assignments	30%
ISU	10%
Culminating	10%
Final Exam	20%

Learning Skills

Student Learning Skills will also be monitored and evaluated throughout the year. The report card provides a record of the learning skills demonstrated by the student in the following five categories: **Responsibility, Organization, Work Independent, Collaboration, Initiative and Self-regulation**. These learning skills are evaluated using the following four point scale: (E) Excellent, (G) Good, (S) Satisfactory, (N) Needs Improvement.

Learning Skills and Work Habits	Sample Behaviours. The Student:
Responsibility	<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	<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	<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	<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	<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	<ul style="list-style-type: none"> sets own individual goals and monitors progress towards achieving them;

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| | <ul style="list-style-type: none">• 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. |
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