COURSE OUTLINE

Course Code: ICS3U
Course Name: Grade 11, Introduction to Computer Science – University Preparation
Teacher: Mrs. C. Manoil
Textbook: none, course notes provided by the teacher

This course introduces students to computer science. Students will design software independently and as part of a team, using industry-standard programming tools and applying the software development life-cycle model. They will also write and use subprograms within computer programs. Students will develop creative solutions for various types of problems as their understanding of the computing environment grows. They will also explore environmental and ergonomic issues, emerging research in computer science, and global career trends in computer-related fields.

Overall Course Expectations:

A. PROGRAMMING CONCEPTS AND SKILLS - OVERALL EXPECTATIONS

By the end of this course, students will:
- demonstrate the ability to use different data types, including one-dimensional arrays, in computer programs
- demonstrate the ability to use control structures and simple algorithms in computer programs
- demonstrate the ability to use subprograms within computer programs
- use proper code maintenance techniques and conventions when creating computer programs.

B. SOFTWARE DEVELOPMENT - OVERALL EXPECTATIONS

By the end of this course, students will:
- use a variety of problem-solving strategies to solve different types of problems independently and as part of a team
- design software solutions to meet a variety of challenges
- design algorithms according to specifications
- apply a software development life-cycle model to a software development project.

C. COMPUTER ENVIRONMENTS AND SYSTEMS - OVERALL EXPECTATIONS

By the end of this course, students will:
- relate the specifications of computer components to user requirements
- use appropriate file maintenance practices to organize and safeguard data
- demonstrate an understanding of the software development process.

D. TOPICS IN COMPUTER SCIENCE - OVERALL EXPECTATIONS

By the end of this course, students will:
- describe policies on computer use that promote environmental stewardship and sustainability
- demonstrate an understanding of emerging areas of computer science research
- describe postsecondary education and career prospects related to computer studies.

Prerequisite: none

My signature below indicates that I have read the Course Handout, and I am in agreement with its contents.

Parent's/Guardian's Signature: _____ **Date:** _____

<table>
<tr><td colspan="2">Units of Study:</td><td>Student Expectations:</td></tr>
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Units of Study:	**Student Expectations:**
Unit 1: Computer Systems (7 per) Unit 2: Computer/Humanity/Earth(4 per) Unit 3: Intro to Programming (8 per) Unit 4: Data Types/Assignment (10 per) Unit 5: Flow Control–Decision (12 per) Unit 6: Flow Control-Repetition (15 per) Unit 7: Arrays (5 per) Unit 8: File Input/Output (10 per) Unit 9: Methods and Parameters (5 per) Unit 10: The Basic of Objects (2 per) Unit 11: Software Dev. Cycle (1 per) Unit 12: Topics in Comp. Science(5 per) Final Evaluation (6 per)	- The computer/ media equipment shall be used for the express purpose of education. - Students must like solving problems - Students must be willing to work in groups and on their own as per situation - Plagiarism of any kind will result in a mark of 0 in all categories - If a student cannot explain their code, or pseudo-code, the assignment will be considered plagiarized. - All assignments must be submitted in the form of source code. Complied binaries will not be accepted. - All assignments will follow appropriate course naming and documentation conventions. - Be positive, timely, inquisitive, and willing to be challenged. Respect yourself, others and the lab. - Students will be given ample time in which they can plan and execute their solutions in class. The use of a home computer is not necessary for successful completion of this course.

Course Grade Weighting:

1. **Student marks** will be determined by evaluating process & product according to 4 categories:

Term Work: 70%		**Final Evaluation: 30%**	
Category	*Weight*	*Task*	*Weight*
Knowledge and Understanding	25%	Culminating Assessment	15%
Thinking	25%	Final Exam	15%
Communication	20%		
Application	30%		

2. Feedback will also be provided for student **learning skills**. Working independently, teamwork, organization, work habits/homework, and initiative are assessed apart from student achievement in the four categories outlined above and will conform to the coding:

       E – Excellent   **G – Good**   **S – Satisfactory**   **N - Needs Improvement**

3. Each unit will conclude with a **Unit Test or Summative Task**. *Any examination or test missed due to truancy will not be rescheduled, and will be assigned a mark of zero."* Students missing an evaluation for a legitimate reason must provide a note from a parent/guardian that acknowledges that the parent is aware that a scheduled assessment has been missed.

4. **Assignments** will be assigned each class. If you have difficulty with any course work, it is **YOUR** responsibility to seek extra help as needed. Please do not hesitate to ask for help so that you do not get too far behind!

5. If you **miss a class** for any reason, you are responsible for the work and any assignment done during that class. Any handouts distributed will be kept in the classroom for you to pick up.

May God bless your efforts. Welcome to the Class!