St. Marcellinus Secondary School - DPCDSB

COURSE OUTLINE

Course Code: ICS3C
Course Name: Grade 11, Introduction to Computer Programming – College Preparation
Teacher: Mrs. C. Manoil
Textbook: none, course notes provided by the teacher

This course introduces students to computer programming concepts and practices. Students will write and test computer programs, using various problem-solving strategies. They will learn the fundamentals of program design and apply a software development life-cycle model to a software development project. Students will also learn about computer environments and systems, and explore environmental issues related to computers, safe computing practices, emerging technologies, and postsecondary opportunities 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 in expressions in simple computer programs
- demonstrate the ability to use control structures and simple algorithms in 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
- design software solutions to meet a variety of challenges, using a set of standards
- design simple 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:
- demonstrate an understanding of the functions of different types of computer components
- use appropriate file maintenance practices to organize and safeguard data
- use a software development environment to write and run computer programs.

D. TOPICS IN COMPUTER SCIENCE - OVERALL EXPECTATIONS
By the end of this course, students will:
- describe computer use policies that promote environmental stewardship and sustainability
- describe and apply procedures for safe computing to safeguard computer users and their data
- explain key aspects of the impact that emerging technologies have on society
- 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:** _____

Units of Study:

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 (14 per)
Unit 5: Flow Control–Decision (15 per)
Unit 6: Flow Control-Repetition (15 per)
Unit 7: Methods and Parameters (15 per)
Unit 8: The Basic of Objects (2 per)
Unit 9: Software Dev. Cycle (1 per)
Unit 10: Topics in Comp. Science(5 per)
Final Evaluation (5 per)

Student Expectations:

- 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	10%
Thinking	25%	Final Exam	20%
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!