SU DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE
SYLLABUS (Tentative)
COSC 117 Programming Fundamentals

Description: A first course for students interested in computer programming, which involves solving problems by designing, implementing, and testing algorithms. Implementation will be done in opensource object-oriented languages. Emphasis throughout the course is on problem solving and learning to develop computer programs that are readable, well-documented, efficient, cross- platform and correct. Students will also be introduced to Internet applications. (Three hours lecture and two hours lab per week.)

Prerequisite: None

Texts: See Instructor for Textbook Information.

	Weeks
Introduction to Programming Integrated Development Environment, Software Development Method with emphasis on Object Oriented Design. Algorithms and story boards.	2.0
Object-Oriented Design & Programming Top-down design. Class and Method Definitions, Program Design with Methods, Fundamental instructions, Objects, control flow.	6.0
Control Flow & Data Structures Loops & repetition. If statements and branching, Lists and Arrays.	3.0
Internet Applications and Graphics Introduction to web programming. Integrating web pages and programs.	1.0
Event Programming Handling mouse clicks and key presses.	1.0
Testing	1.0
	14.0

EVALUATION

Programs (Designs & Implementations)	30 - 40%
Labs	10 - 20%
Tests	30 - 45%
Final Exam	20 - 25%

WAC: Program design and documentation of programs require extensive writing that meets the writing across the curriculum goal of the university.

NOTE: ONCE A STUDENT HAS RECEIVED CREDIT, INCLUDING TRANSFER CREDIT, FOR A COURSE, CREDIT MAY NOT BE RECEIVED FOR ANY COURSE WITH MATERIAL THAT IS EQUIVALENT TO IT OR IS A PREREQUISITE FOR IT.

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