DAVIS UNIVERSITY

COURSE SYLLABUS

DSC105: C++ PROGRAMMING

SUMMER QUARTER 2024

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COURSE SYLLABUS FOR: DSC105 C++ PROGRAMMING

CREDIT HOURS: 4 CREDITS

CONTACT HOURS: 60

INSTRUCTOR:

INSTRUCTOR EMAIL:

INSTRUCTOR OFFICE HOURS:

COURSE DESCRIPTION: Introduction to object-oriented programming and C++ programming language. Students will create, document, run and debug programs. Topics mainly include variables, classes, objects, selection, iteration, strings, arrays, pointers and functions.

TEXT: *Programming in C++*, by Nell Dale and Chip Weems, 5th Edition, 2010.

LATE WORK POLICY: All students are expected to submit homework assignments electronically on the date specified on the syllabus No late homework will be accepted and the student will receive a “0” (zero) for the homework assignment. Should the student refuse to complete the assigned work for the class, it could result in the student failing the class. All work assigned is expected to be completed on the date assigned. The instructor reserves the right to alter the schedule as necessary. Please be sure to check your email/Moodle for any changes to the schedule.

PLAGIARISM AND COPYRIGHT INFRINGEMENT POLICY: Work that is found to be plagiarized receives a grade of zero and often causes a student to fail a class. Documentation of plagiarism is added to the student's academic file as a violation of accepted student conduct and is subject to disciplinary action. Plagiarism is the use of another person's exact words, or their ideas written in the student's words without giving the original author credit.

Plagiarism can result from any of the following:

- Quote material directly without using quotation marks.
- Paraphrase the original so that many of the phrases are the same as the original. A good rule is no more than 3 or 4 words in a row should be the same as the original.
- Copy the original sentence pattern, substitution synonyms for key words.
- Neglect to indicate the source of the original material.

ASSESSMENTS:

Content	
Programming Assignments	50%
Midterm Exam	25%
Final Exam	25%
Total	100%

COURSE GRADE: **A = 93%-100%**

B = 85%-92%

C = 77%-84%

D = 70%-76%

F = below 70%

TENTATIVE CLASS SCHEDULE:

(Subject to change)

Week: Date	Content Covered	Assignments & Assessment Due
Week 1:	• Introduction to computer programing; Programming life cycle • c++ program elements with “Hello World” example • Input, output • Assignment and interactive input: Assignment operators • Data types, variables, declarations • Arithmetic operations, expressions and precedence	Assignments 1- Friday
Week 2:	• Relational Expressions: The if-else statement; switch case statement and nested if statements • The iterative loops: for loop and while loop • while loop and do-while loop	Assignments 3- Friday
Week 3:	• Mathematical library functions and symbolic constants • Modularity using functions: Function and parameter declarations • Modularity using functions: function returning a single/multiplevalues Variable scope • Arrays: One-dimensional arrays, initialization and arrays asarguments	Assignments 3- Friday Test 1
Week 4:	• Array based list operations • Arrays & Pointers: Introduction to pointers and array name aspointers • Arrays & Pointers: pointer arithmetic and pass addresses • Two-dimensionalarrays • Introduction to classes: Object-based programming, classes, constructors and class scope	Assignments 4- Friday
Week 5:	• Adding functionality to classes: Creating class operators, methods and this pointer • File I/O • more on string class • Inheritance • Polymorphism	Assignments 5- Friday Test2