SEMINOLE STATE COLLEGE
OF FLORIDA

Selected Topics in C++ Programming Syllabus

COP 2931, Summer 2021, May17 - July 18

Course & Instructor Information

Instructor: TBA

Office Hours: By Appointment

Contact Hours: 15

Credits: 1

Course Description

This course is scheduled for individual student who wishes to explore topics supplementary to the curriculum in COP 2224 C++ Programming.

Prerequisites

To be taken in conjunction with COP 2224 C++ Programming.

Textbook Information

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

Measurable Course Objectives

Measurable Course Objectives and Outcomes, students are expected to achieve by the end of the course.

- Revisit and reinforce C++ basics including variables, expressions, selections, loops, arrays, pointers and functions

- Use structured programming concepts and techniques in developing C++ applications

- Understand object-oriented concepts of abstraction, inheritance and polymorphism

- Apply basic to intermediate object-oriented programming concepts in solving business problems

Collegewide Student Learning Outcomes

The Collegewide Student Learning Outcomes assessed and reinforced in this course include the following:

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- Communication

- Critical Thinking

- Scientific and Quantitative Reasoning

- Information Literacy

- Global Sociocultural Responsibility

Course Requirements

- Required textbook reading

- Required discussion participation

- Required course assignments to be completed before the due date

- Required well preparation for the class

Makeup Policy

You will be allowed to make up work for full credit only under extreme circumstances (such as a documented, serious health-related emergency).

Cheating will not be tolerated. This includes but not limited to giving or receiving aid on a quiz or exam and plagiarizing the work of others (including your classmates). There will likely be homework or in-class work that will allow for collaboration, but all work you turn in must be in your own words.

Course Content

The course runs when COP2224 is offered and is a supplement to COP2224. It covers C++ basics including selections, iterations, functions, arrays and pointers and the object-oriented programming concepts such as inheritance and polymorphism as well as the use of the Standard Template Library. The course focuses on reinforcing the topics covered in COP 2224 by developing an application.

Week 1

- Introduction to the course and project

- C++ basics: data types, variables, expressions, and I/O

- Assignment and reading online C++ tutorials on the topics covered

Week 2

- C++ program structure basics: selections and loops

- Assignment and reading online C++ tutorials on the topics covered

Week 3

- Functions and arrays
- Use of structured programming techniques to solve business problems
- Assignment and reading online C++ tutorials on the topics covered

Week 4

- Pointers, 2D array,
- Array based list
- Project

Week 5

- Classes and objects
- Object-oriented programming concepts and design
- Final project and presentation
- Evaluations and Summary

The syllabus and course schedule are subject to change at the discretion of the professor to meet the students' need.

Grading Scale

A = 90-100%

B = 80-89%

C = 70-79%

D = 60-69%

F = Below 60%

"A" grades are given for outstanding work. You are doing extremely well. The student has exceeded expectation.

"B" grades are given for above average work. You are doing very well. Improvements will be toward higher refinements of concept.

"C" grades are given for average work. You are meeting an acceptable level or expectation. Improvements will be towards acceptable levels of project requirements.

"D" grades are given for below average work. You are under-achieving in quality and/or motivation. Improvements will be towards acceptable level of project requirements.

"F" grades are given for failure. You are not reaching the expected level for college work. Improvements are to review goals, seek assistance and increase efforts.

Academic Integrity

As members of the Seminole State College of Florida community, students are expected to be honest in all of their academic coursework and activities.

Academic dishonesty, such as cheating of an kind on examinations, course assignments or projects, plagiarism, misrepresentation and the unauthorized possession of examinations or other course-related materials, is prohibited.

Plagiarism is unacceptable to the college community. Academic work that is submitted by students is assumed to be the result of their own thought, research or self-expression. When students borrow ideas, wording or organization from another source, they are expected to acknowledge that fact in an appropriate manner. Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass-off such work as the student's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized.

Students who share their work for the purpose of cheating on class assignments or tests are subject to the same penalties as the student who commits the act of cheating.

When cheating or plagiarism has occurred, instructors may take academic action that ranges from denial of credit for the assignment or a grade of "F" on a specific assignment, examination or project, to the assignment of a grade of "F" for the course. Students may also be subject to further sanctions imposed by the judicial officer, such as disciplinary probation, suspension or dismissal from the College.