

C++ Programming Syllabus

COP2224, Summer 2019, June 24 - July 26

Course & Faculty Information

Lecturer: TBA

E-mail: TBA

Time: Monday through Friday

Contact hour: 45 hours (1.8 hours each day)

Credits: 3

Office hours: By Appointment

Course Description

This course provides an introduction to object-oriented programming and the C++ programming language. Students will create, document, run and debug programs using computer facilities on campus. Key topics include variables, classes, objects, selection, iteration, strings, arrays, pointers and functions.

Prerequisite

COP 2800 with a grade of "C" or higher or department permission.

Textbook Information

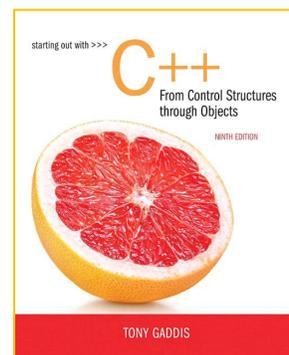
Starting Out with C++: From Control Structures through Objects, 9th Edition

Author: Gaddis

ISBN: 9780134498379

Publisher: Pearson

Edition: 9th



Course Objectives

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

- Use the basic to intermediate concepts of object-oriented programming to create C++ programs.
- Design, build, execute, and debug C++ programs.
- Build modular solutions to business problems.
- Use variables, arrays, strings in C++ programs.
- Use flow control statements in C++ programs.
- Use calculations in C++ programs.
- Use iterations in C++ programs.
- Use pointers to process arrays, pass arguments, and improve.

Hardware/Software

C++ applications can be developed using a Windows, or Mac, or Linux machine. All the software needed for this course is free and can be downloaded from the Internet. You will need:

1. Visual Studio – [Windows](#) or [Mac](#) – The Integrated Design Environment (IDE).
2. [Open Broadcast Software](#) (OBS) - For video recording of test runs and code walkthroughs.

The course material will provide instructions on how to download, install, and configure these tools. You should plan to do this immediately at the beginning of the course.

A computer is required in this class

No Late Assignments and Make-up Exams

It is important to complete the coding projects, quizzes, and exams in a timely manner. Projects, quizzes, and exams are due by midnight (local time) on the date indicated.

You will not be able to make up a missed quiz, exam or missed project for any reason except documented military duty or jury duty.

Evaluation Methods

Your final grade is based on the following:

Participation	10%
Quizzes	20%
Projects	35%
Tests	35%
Total	100%

Grading Scale

Grade	Work Quality
A = 90-100%	“A” level work demonstrates excellence overall with no major weaknesses. This includes an “A” grade on tests and labs. A level work displays excellent presentation and clarification of key concepts of the unit. All written work is outstanding and presented in excellent form.
B = 80-89%	“B” level work demonstrates more strengths than weaknesses. This includes “A” and “B” grades on tests and labs. All written and oral work is on the whole clear, precise and well presented.
C = 70-79%	“C” level work demonstrates slightly more than a minimal level of skill and comprehension of material covered in the class. “C” level work demonstrated by a “C” grade on tests and average presentation of formal written material. “C” level work shows some assignments are reasonably well done but others are poorly done or mediocre at best.
D = 60-69%	“D” level work demonstrates a minimal level of skill and comprehension of material covered in class. “D” level work is demonstrated by a “C” grade or lower on tests and below average presentation of formal written material.
F = Below 60%	“F” level work demonstrates that the student has failed to comprehend the material and to the required work of the course. “F” level work is demonstrated by a grade of “F” or lower on tests and below average presentation of formal written material.

Attendance Policy

The College recognizes the correlation between attendance and both student retention and achievement. Per College Policy 3.060, **Students are expected to attend all classes, actively participate and complete all assigned course work for all courses for which they are registered.**

Key topics include variables, classes, objects, selection, iteration, strings, arrays, pointers and functions.

Course Outline

Subject to change

Week 1	Orientation Chapter 2 Introduction to C++ Chapter 3 Expressions and Interactivity Chapter 4 Making Decisions Complete project Quiz Test
Week 2	Chapter 5 Loops and Files Chapter 6 Functions Complete project Quiz Test
Week 3	Chapter 7 Arrays and Vectors Chapter 8 Searching and Sorting Complete project Quiz Test
Week 4	Chapter 9 Pointers Chapter 10 Characters, C-Strings, and more about the String Class Complete project Quiz Test
Week 5	Chapter 13 Introduction to Classes Chapter 14 More about Classes Complete project Quiz Test

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 any 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.

Selected Topics in Computer Programming Syllabus

COP 2931, Summer 2019, June 24 to July 26

Course & Faculty Information

Course : COP 2931 Selected Topics in Computer Programming- C++ Programming- COP 2224

Lecturer: TBA

E-mail: TBA

Time: Monday through Friday

Contact hour: 15 hours (50 minutes each)

Credits: 1

Office hours: By Appointment

Course Description

This course is scheduled for individual students who wish to explore topics supplementary to the curriculum in COP 2400 C++ Programming.

Co-requisite

To be taken in conjunction with COP 2400 C++ Programming.

Course Objectives

Measurable Course Objectives are outcomes students are expected to achieve by the end of the course.

- reinforce programming concepts of using variables, constants, data types, loops, conditionals, functions, arrays, pointers, strings, and classes
- apply basic programming concepts and techniques in designing and implementing modular and structured programs
- design and create C++ application

Textbook Information

There are no textbooks required for this course.

Attendance Policy

Students are expected to attend all classes, actively participate and complete all assigned course work for the course.

Grading Scale:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = Below 60%

Course Content

The course runs at the same time as COP2400 and is a supplement to COP2400. It starts with C++ basics, reinforces programming concepts of using variables, constants, data types, loops, conditionals, functions, arrays, pointers, strings, and classes. The course applies basic programming concepts and techniques in designing and implementing modular and structured programs. Students will work on developing a C++ application in groups.

Course Schedule

Week 1

- Introduction to the course and project
- Review C++ basic, use of expressions, and making decisions (conditionals)

Week 2

- Review loops (iteration), file I/O, and functions

Week 3

- Review arrays, vectors, searching and sorting
- Group project

Week 4

- Review pointers, strings and classes

Week 5

- Final presentation
- Evaluations and Summary

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