



## C++ Programming

CIS 170 / CPS 177

Winter 2019

**Number of Credits:** 3

**Days Class Meets:** M

**Meeting Times:** 6:00-8:54pm

**Location:** WA 222

**Instructor:** Dianne Hill

**Office:** WA 226E

**Contact Phone:** 517-796-8546

**Contact Email:** hilldiannem@jccmi.edu

**Office Hours:**

Mondays: 12:00-1:00 & 2:30-6:00pm (Jackson - WA 226E)\*

Tuesdays: 5:00-6:00pm (Online)

Wednesdays: 12:00-1:00 & 2:30-6:00pm (Jackson - WA 226E)

\*2nd and 4th Mondays I have meetings from 3-5

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### Course Description

Students study digital computing systems and how they are used to solve problems. Students use procedural and object-oriented programming capabilities to design, develop, and test computer programs. Topics covered include program development, functions, control structures, text file operations, classes, recursion, arrays, and pointers.

### Prerequisite(s)

For Computer Programming majors: CIS 158

### Course Objectives

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs and course objectives addressed in this class include the following:

- Design, write, and test structured computer programs using C++.
- Design, write and test object-oriented computer programs using C++

- Experience maintenance programming by altering existing programs.
- Use both internal and external documentation in programs.

## Textbook

- C++ Programming: From Problem Analysis to Program Design, D. Malik, 8<sup>th</sup> Edition, ISBN: 9781337102087, Cengage Learning

**Text Book Zero!** This text is available in a digital format. Please see the links posted on our class Jet Net site. This text is available to rent or purchase in digital format through the JC Bookstore.

## Extras

- C++ compiler

## Grading Procedure

ACTIVITY	POINTS EACH	TOTAL POINTS
2 Exams	50	100
10 Home Practice Assignments	20	200
10 Quizzes	10	100
Individual Project	50	50
Total Points		450

Assignments, quizzes, exams, etc. could change throughout the semester as deemed appropriate by the instructor

## Grading Scale

GPA	GRADE RANGE
4.0	94-100%
3.5	88-93%
3.0	82-87%
2.5	76-81%
2.0	70-75%
1.5	64-69%
1.0	58-63%
0.5	52-57%
0.0	0-51%

## Home Practice Assignment

Assignments should be completed using cumulative techniques to date. Structure, documentation and accuracy of input and output will be considered in grading these assignments. Unless otherwise stated all assignments are due one week after they are assigned. Home practice assignments will be accepted up to one week after the due-date with a 50% deduction. No work will be accepted beyond this time. Assignments submitted on-time may be resubmitted for full credit within a timely manner. Programming assignments should be submitted electronically using our course site in JetNet.

## Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

**Plagiarism is defined as the failure to give credit for the use of material from outside sources.**

**Plagiarism includes but is not limited to:**

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

**Cheating is defined as obtaining answers/material from an outside source without authorization.**

**Cheating includes, but is not limited to:**

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

## Makeup Exams

Make-up exams will only be given for excused absences. Notify your instructor by phone if you are going to miss an exam and make arrangements to make-up that exam. Exams need to be made up BEFORE the next class session. If you have a planned vacation, business trip, etc., the exam should be taken early (when appropriate).

## Help

Jackson College has several available learning services or opportunities for students seeking help with their course work. Tutors (plus additional services for academic success) can be accessed by calling 796-8415 or by stopping by the Center for Student Success, Bert Walker Hall Room 123.

Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success. It is important to contact a Center for Student Success professional prior to the start of the semester in order to receive accommodations in a timely manner. While we will make every effort to coordinate accommodations in a timely manner, failure to self-identify prior to the start of the semester may delay notification to instructors and timeliness of acquiring accommodations. Accommodations do not automatically carry over to the next semester.

## Important Dates

The Academic Calendar can be found on JC's website at: <https://www.jccmi.edu/academics/academic-calendar/>

## Attendance Policy

In compliance with Federal Title IV funding requirements, as well as college initiatives, reporting of student participation in classes will occur at three designated times each semester. Instructors will assign one of three non-transcripted letter symbols to each student during each reporting period (see below). Students identified as no longer participating will be dropped or administratively withdrawn from the class, and students identified as needing academic assistance will be contacted.

### Participation/Progress Symbols

- H – The student is not doing acceptable work and needs **H**elp to be successful.
- Q – The student has not participated and the instructor believes they have unofficially withdrawn (**Q**uit). These students will be dropped/withdrawn from the class.
- V – The instructor **V**erifies that the student is participating and doing acceptable work.

## Incompletes

No incomplete grade will be given in this class except under extenuating circumstances and if the student has completed at least 75% of the work and has at least 2.0 in the course. The grade of "I" is not awarded to students who did not attend, or seldom attended, or to those who simply are not pleased with their final grades. Students receiving an "I" submit only the remaining work that had not been completed at the end of the semester. Students do not redo work that had already been graded.

## Calendar

*\*The calendar timelines and assignments are an approximation and could be changed.*

WEEK #	TOPIC	HOMEWORK
1	Course Site Simple C++ Program	Introduction Program
2	C++ Basics	Home Practice 1
3	Flow of Control	Home Practice 2
4	More Flow of Control	Home Practice 3
5	Functions	Home Practice 4
6	More Functions	Home Practice 5
7	I/O Streams	Prepare for Exam, Quizzes, Homework Resubmissions
8	Exam	Home Practice 6
9	Arrays	Home Practice 7
10	More Arrays	Home Practice 8
11	Structures & Classes	Home Practice 9
12	More Classes & Overloaded Operators	Home Practice 10
13	Misc Topics	Work on Project
14	Exam Review & Work on Project	Prepare for Exam and Work on Project
15	Final Project Presentations and Exam 2	