

# COSC 181 Computer Programming I (Fall 2009)

Instructor: David Owen  
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Time and Place: Monday, Wednesday and Friday 9:00-9:50 AM, Tuesday 8:00-9:15 AM  
Frey 156 (Monday and Wednesday lectures), Jordan 161 (Tuesday and Friday labs)

Office Hours: Monday, Wednesday and Friday 2:00-3:50 PM, Tuesday TBD

Course Website: <https://sakai.messiah.edu/portal/site/200910COSC1811123>  
(Log in to Sakai with your MCSquare user name and password.)

## Description

This course introduces object-oriented computer programming using the Java programming language. Students will develop programming skills through a series of projects that teach general programming techniques and basic object-oriented development. COSC 181 is designed for majors in computer science, business information systems, engineering and mathematics.

## Prerequisites

There are no prerequisites for COSC 181, except familiarity with high school algebra. No previous programming experience is assumed. COSC 181 satisfies the 3-hour general education requirement for a course in mathematical sciences.

## Textbook

Gaddis, Tony. Starting out with Java: from Control Structures through Objects. Fourth edition. Addison Wesley, 2010. ISBN 0136080200. (New textbook for fall 2009.)

## Objectives

Having completed COSC 181, students will be able to:

1. Design programs using standard Java classes for user input / output, manipulation of character strings and mathematical processing.
2. Use sequencing, iteration and control flow logic to design and implement algorithms.
3. Read, write, modify, test and document programs using incremental development and object-oriented techniques.
4. Understand and discuss basic object-oriented programming concepts.
5. Succeed in future programming courses.

## Requirements and Evaluation

Your grade will be based on the following:

1. 11 programming assignments requiring design, programming and documentation (50%).
2. 3 tests (20%) and a final exam (10%).
3. A participation grade based on attendance, participation and weekly quiz grades (20%). Your participation grade will start at 100%; you will lose 5% for unexcused absences and up to 10% for quizzes (if you score a zero or miss a quiz); I may increase or decrease your participation grade by up to 5% per class for unsatisfactory or outstanding participation.

Assignments are due at the beginning of class on the day specified. Late assignments will be penalized as follows: 1st day lose 10%, 2nd day lose 25%, 3rd day lose 50%, 4th day no credit. Program documentation and other written assignments should be written using a word processor (Microsoft Word or Open Office), with appropriate title, name, date, etc., and with correct spelling, grammar and punctuation. Your grade will be scaled as follows: A  $\geq$  93, A-  $\geq$  90, B+  $\geq$  88, B  $\geq$  83, B-  $\geq$  80, C+  $\geq$  78, C  $\geq$  73, C-  $\geq$  70, D+  $\geq$  68, D  $\geq$  63, D-  $\geq$  60, F < 60.

## Academic Integrity

Students are responsible to read and abide by Messiah College's policy on academic integrity, found on pages 43-45 of the Academic Life section of the student handbook ([www.messiah.edu/offices/student\\_affairs/student\\_handbook/resources/0809/academiclife.pdf](http://www.messiah.edu/offices/student_affairs/student_handbook/resources/0809/academiclife.pdf)). In addition to plagiarism (copying others' work without proper acknowledgment) the college policy also forbids facilitating academic dishonesty (allowing one's work to be copied) and any attempt to gain an unfair advantage over other students (using an outside source, even with proper acknowledgment, that makes the assignment significantly less difficult). Although it's natural and appropriate for computer programmers to work with others and search the Internet for helpful information, be careful to maintain a high level of academic integrity in this course. If you have any concerns about sources of help you've used or would like to use, don't hesitate to talk to me about them.

## Americans with Disabilities Act (ADA) Statement

Messiah College welcomes students with disabilities. If you have a documented disability and wish to discuss academic accommodations for this course, let me know as soon as possible. All disability accommodations must be pre-approved through the Office of Disability Services, x5382.

## Acknowledgments

This syllabus (and the course it describes) is based on contributions from Barry Deroos, Gene Rohrbaugh and Scott Weaver.