

# CIS 254 AA FALL 2009 CSM

## INTRO TO OBJECT-ORIENTED PROGRAM DESIGN

**INSTRUCTOR** Melissa Green [greenm@smccd.edu](mailto:greenm@smccd.edu) <http://www.smccd.edu/accounts/greenm>  
Office: 12-188F 650-574-6374 Office hours: MW 2:00-3:00 PM T 10:30-12:30 PM Th 3:30-4:30 PM

**LECTURE** CIS 254 AA CRN 88611 MW 11:10-12:25 PM Room 19-105 4 Units  
**LAB** MW 12:35-1:50 PM Room 19-124

### Plus One Hour by Arrangement

Students will use the textbook's CD-ROM, textbook web site, the Lego Mindstorms NXT robot, and the World Wide Web to enrich their learning beyond the classroom. This additional hour can be done at home or in the computer lab in room 19-124.

**TEXT** **Java How to Program, Custom Edition** by Deitel Prentice Hall ISBN 0-558-27467-6  
You will also need at least 3 floppy disks.

### COURSE DESCRIPTION

Introduction to object-oriented computer programming for computer science majors and computer professionals. Includes simple data types; control structures; an introduction to array and string data structures and algorithms; debugging techniques; history of computer science, computer systems and environments; and the social implications of computing. Emphasizes object-oriented design, good software engineering principles and developing fundamental programming skills in Java. This course conforms to the ACM CS0 standards.

**Prerequisites:** Math 110 or equivalent.

**Recommended Preparation:** eligibility for ENGL 848.

### GRADING

Tests	45%	90-100	<b>A</b>	80-89	<b>B</b>
Final Exam	25%	70-79	<b>C</b>	60-69	<b>D</b>
Assignments	30%	0-59	<b>F</b>		

**Students with grades one point below cutoff will be promoted to the next highest grade if they have had 2 or fewer absences and have completed all assignments.**

Please keep all graded papers until you have received your official grade report. If there is any dispute over a recorded score, you must produce the graded paper. This course does allow "pass/no pass" grading. You must maintain a "C" average to receive credit for this course.

There will be approximately 8 programming assignments in addition to lab assignments. Programming assignments will be graded on program correctness, documentation, and style. There will be 4 tests over the semester, each worth 75 points. Each test focuses on recent material but may also cover material from the beginning of the semester. The tests will be based on class lectures as well as the textbook and techniques you have used on the related lab assignments. I will use your 3 highest test scores in determining your grade. There are **NO** makeup tests. There will also be a final exam.

**Please turn off cell phones and iPods while in class.**

### FINAL EXAM SCHEDULE

The final exam covers all material for the semester.

**CIS 254 AA Wednesday, December 16, 2009 11:10–1:40 PM**

## **OTHER IMPORTANT DATES**

Tuesday, September 1, 2009	Last day to add or drop with eligibility for fee credit or refund
Sunday, September 6, 2009	Last day to complete WebSMART registration
Monday, September 7, 2009	Labor Day– NO CLASS
Friday, September 11, 2009	Last day to drop classes with no notation on student record
Wed., September 23, 2009	Last day to declare pass/no pass option
Wed., November 11, 2009	Flex Day– NO CLASS
Wed., November 18, 2009	Last day to withdraw with a “W” on student record
November 26-29, 2009	Thanksgiving – NO CLASS

## **COMPLETING ASSIGNMENTS**

This course will require at least eight hours of computer work each week in addition to preparation time. You may do the programming assignments using Java 2 Standard Edition 6.0 in the computing lab in 19-124 or on other systems if you have access to Java. Assignments will **NOT** be accepted by e-mail. Students are expected to do their own work. Any case of duplicate assignments will result in a grade of zero for all people involved, unless it is a team project. **All assignments are due at the beginning of class.** Late assignments will have a 50% penalty and are accepted only up to the beginning of the next class meeting. You will receive a separate handout with programming guidelines.

## **ATTENDANCE**

Class attendance is required. There will be a sign-in sheet for each class. I reserve the right to drop any student who has missed four consecutive classes. However, under normal circumstances I do **NOT** drop students from the class rolls. It is the student’s responsibility to file the paperwork needed to drop or withdraw from this class. If you simply stop attending class, you will probably receive an “F”.

## **STUDENT LEARNING OUTCOMES**

Upon completion of this course, students should be able to

- Analyze and explain the behavior of programs involving the fundamental program constructs
- Write short programs that use the fundamental program constructs including standard conditional and iterative control structures
- Identify and correct syntax and logic errors in short programs
- Write short programs that use arrays
- Design and implement a class based on attributes and behaviors of objects
- Construct objects using a class and activate methods on them
- Use static and instance members of a class properly
- Identify and describe the properties of a variable such as its associated value, scope and lifetime
- Describe the parameter passing mechanisms and method overloading
- Analyze and explain is-a relationships among objects using a class hierarchy and inheritance

### 254AA Fall 2009 Course Outline (Tentative)

Week	Dates	Topics	Reading
1	Aug. 19	Introduction	Chapter 1
2	Aug. 24, 26	Java Applications	Chapter 2
3	Aug. 31 Sept. 2	Intro to Classes and Objects Intro to Classes and Objects	Chapter 3 Chapter 3
4	Sept. 7 Sept. 9	<b>Labor Day – No Class</b> Control Structures: Part I	Chapter 4
5	Sept. 14 Sept. 16	Control Structures: Part I <b>Test 1</b>	Chapter 4 Chapters 1, 2, 3
6	Sept. 21 Sept. 23	Test 1 Sol, Control Structures: Part I Control Structures: Part II	Chapter 4 Chapter 5
7	Sept. 28, 30	Control Structures: Part II	Chapter 5
8	Oct. 5, 7	Methods	Chapter 6
9	Oct. 12 Oct. 14	Methods <b>Test 2</b>	Chapter 6 Chapters 4-5
10	Oct. 19 Oct. 21	Test 2 Solution, Applets Applets, Arrays, ArrayLists	Chapter 10 Chapters 7, 10
11	Oct. 26, 28	Arrays, ArrayLists	Chapter 7
12	Nov. 2, 4	Strings, Characters	Chapter 9
13	Nov. 9 Nov. 11	<b>Test 3</b> <b>Flex Day – No Class</b>	Chapters 6, 10
14	Nov. 16 Nov. 19	Test 3 Solution, Strings, Characters Classes and Objects	Chapter 9 Chapter 8
15	Nov 23, 25	Classes and Objects	Chapter 8
16	Nov. 30 Dec. 2	Sorting and Searching <b>Test 4</b>	Handout Chapters 7, 9
17	Dec. 7 Dec. 9	Test 4 Solution, OO Design Final Review	Handout

**Final Exam: Wednesday, December 16, 11:10-1:40 PM**