

CIS 254JA SPRING 2010 CSM

INTRO TO OBJECT-ORIENTED PROGRAM DESIGN

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Office: 17-148 650-574-6374 Office hours: MWTh 3:30-4:30 PM T 4:00-6:00 PM

LECTURE CIS 254 JA CRN 37965 MW 5:00-6:15 PM Room 19-107 4 Units
LAB MW 6:25-7:40 PM 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	A	80-89	B
Final Exam	25%	70-79	C	60-69	D
Assignments	30%	0-59	F		

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.**

OTHER IMPORTANT DATES

Monday, February 1, 2010	Last day to add or drop with eligibility for fee credit or refund
Sunday, February 7, 2010	Last day to complete WebSMART registration
February 12-15, 2010	President's Day– NO CLASS
Tuesday, February 16, 2010	Last day to drop classes with no notation on student record
Tuesday, February 23, 2010	Last day to declare pass/no pass option
March 10-12, 2010	Flex Days – NO CLASS
April 3-9, 2010	Spring Break – NO CLASS
Thursday, April 29, 2010	Last day to withdraw with a "W" on student record

FINAL EXAM SCHEDULE

The final exam covers all material for the semester.

CIS 254 JA Wednesday, May 26, 2010 5:00–7:30 PM

COMPLETING ASSIGNMENTS

This course will require at least ten hours of computer work each week in addition to preparation time. You may do the programming assignments using Java 6 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 and lab 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 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

254JA Spring 2010 Course Outline (Tentative)

Week	Dates	Topics	Reading
1	Jan. 20	Introduction	Chapter 1
2	Jan. 25, 27	Java Applications	Chapter 2
3	Feb. 1, 3	Intro to Classes and Objects	Chapter 3
4	Feb. 8, 10	Control Structures: Part I	Chapter 4
5	Feb. 15 Feb. 17	Presidents' Day – No Class Test 1	Chapters 1, 2, 3
6	Feb. 22 Feb. 24	Test 1 Sol, Control Structures: Part I Control Structures: Part II	Chapter 4 Chapter 5
7	Mar. 1, 3	Control Structures: Part II	Chapter 5
8	Mar. 8 Mar. 10	Methods Flex Day – No Class	Chapter 6
9	Mar. 15, 17	Methods	Chapter 6
10	Mar. 22 Mar. 24	Applets Test 2	Chapter 10 Chapters 4-5
11	Mar. 29 Mar. 31	Test 2 Solution, Arrays, ArrayLists Arrays, ArrayLists	Chapter 7 Chapter 7
12	Apr. 5-7	Spring Break – No Class	
13	Apr. 12, 14	Arrays, ArrayLists	Chapter 7
14	Apr. 19 Apr. 21	Strings, Characters Test 3	Chapter 9 Chapters 6, 10
15	Apr 26 Apr. 28	Test 3 Solution, Strings, Characters Strings, Characters	Chapter 9 Chapter 9
16	May 3, 5	Classes and Objects	Chapter 8
17	May 10 May 12	Classes and Objects, Sorting/Searching Test 4	Chapter 8, Handout Chapters 7, 9
18	May 17 May 19	Test 4 Solution, OO Design Final Review	Handout

Final Exam: Wednesday, May 26, 5:00-7:30 PM