Winter 2012

CS 209-01: Computer Programming for Business II

David M. Hutchison
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# Winter 2012 - CS 209 Syllabus

## Course Information

<table>
<thead>
<tr>
<th>Course title:</th>
<th>Computer Programming for Business II (4.0 credit hours)</th>
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</thead>
<tbody>
<tr>
<td>Course number:</td>
<td>CS 209 Section 01, Lab Section 01</td>
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<tr>
<td>Course discipline:</td>
<td>Computing Sciences</td>
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<tr>
<td>Course description:</td>
<td>CS 209 is the second in a sequence of two programming classes required for MIS majors. Examples are from business applications and emphasis is on problem solving with the computer as a tool.</td>
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<tr>
<td>Course date:</td>
<td>Monday, January 9, 2012 through Monday, March 12, 2012 (Final Exam: Friday, March 16)</td>
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<tr>
<td>Location:</td>
<td>355 Russ Engineering Center</td>
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<td>Meeting day(s):</td>
<td>Monday</td>
</tr>
<tr>
<td>Meeting time(s):</td>
<td>6:05 - 9:35 (includes lecture and lab)</td>
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<tr>
<td>Prerequisite(s):</td>
<td>CS 208 or equivalent</td>
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## Instructor Information

| Name: | David M. Hutchison |
| Email: | david.hutchison@wright.edu |
| Office location: | TBD (either the Russ lounge or classroom, if available prior to class) |
| Office hours: | 5:30 - 6:00 Monday, but only with prior coordination |
| Biography: | • B.S. Computer Science, Wright State University, 1990 |
| | • M.B.A. Project Management, Wright State University, 1995 |
| | • Sun certified Java Programmer |
| | • Sun certified Java Developer |
| | • Project Management Professional |
| | • Current (Winter 2008-Present) instructor of CS 208 and CS 209 |
| | • Previous (1997-2001) and current instructor of CS 208 and CS 209 |
| | • Instructor of various independent Java, C programming, and Oracle-related Java courses |

| Teaching assistants: | Neal Eikenberry – Office: 314 Russ, Office Hours: TBD |

## Course Goal

| Course goals: | This course, in conjunction with CS 208, is designed to help students achieve a high degree of proficiency in intermediate level programming skills. |

## Course Policies

| Introduction: | All course policies are subject to change. |

## Course Requirements

| Requirements: | This course assumes successful (i.e., passing) completion of CS 208 or equivalent. You are required to have a thumb drive or similar media. Although not required, a backup is highly recommended as well. |

## Course Schedule

| Schedule: | The course schedule presented in the Calendar is tentative. We will do our best to adhere to this schedule, but events beyond our control (e.g., weather) may impact the dates and content. I will do my best to not slip any exam dates. |
Class Attendance
Policy: It is your responsibility to attend all classes - attendance will not be taken. Since this class is held only once a week, you stand to miss out on a lot of information, quizzes, labs, project hints, etc. if you choose to skip a class. Of course, prior notice of your missing class would be appreciated. Another way to think about it - if I haven't a clue of who you are because of your choosing not to attend class, then don't expect any leniency when it comes to "curving" grades.

Grading Policy
Policy: Grading is on a straight 10-point increment scale. That is, >90 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and <60 is an F. Weights of exams, assignments, etc. are as follows:

- 25% - Mid-term exam
- 25% - Final exam
- 20% - Programming assignments
- 10% - Quizzes
- 10% - In-class labs
- 10% - Homework

Remember, your grade is weighted - it is not a straight points-based computation.

Academic Dishonesty
Policy: Violators will receive an F for the course and will be reported to the university - official university policy will be followed (Click here for the policy). You are required to work individually on your programming assignments. You are permitted to exchange ideas with your peers, but you are not permitted to use someone else's work. Additionally, you may not share your work with someone else. If you choose to violate these rules, then all students involved will suffer the consequences.

Course Lab
Lab: You must be enrolled in the lab associated with this class (i.e., CS 209 lab, section 01). The Pilot site for the lab will not be used.

In-class Lab Assignments
Lab assignments will be provided during each lab session. These assignments are to be worked on during lab and submitted prior to the end of the night's lab session, regardless of whether or not they are complete. These assignments will consist of straightforward coding problems such as writing source code for incomplete programs, or designing a complete Java application. There will be five lab assignments. Each lab will be worth 50 points.

Course Exams
Exams: All students are required to take both exams. Make-up exams are only given on a case-by-case basis. If you are unable to attend an exam, you are required to provide an acceptable and documented reason prior to the exam.

Course Quizzes
Quizzes: 5 announced quizzes.

Programming Assignments
Assignments: There will be three programming assignments over the course of the quarter. Each of these assignments is worth 100 points, the required due date will be posted with the assignment, and each will state the requirements for that assignment (e.g., provide a design, test cases, source code, etc.). You are required to earn at least 60% of the total points for each individual assignment. Failure to earn 60% on each assignment with result in failure of this course! Failure to reach an average of 75% across all three assignments will also result in failure of this course! Late assignments will only be accepted for documented reasons,
previously arranged with the instructor (i.e., not the lab TA). Please see the lab TA for a
description of how points will be allocated for each programming assignment.

**Textbook**

Required reading: *Java Programming: From the Ground Up*, Ralph Bravaco, Shai Simonson, McGraw-Hill, 1
edition (January 22, 2009), 978-0073523354

**Midterm Exam**

Content: Chapters 6 - 7.

**Final Exam**

Date: **Friday** March 16, 2012 – 6:30 pm til 8:30 pm in 355 Russ

Content: Comprehensive, with a concentration on chapters 9, 10, 12. I will do my best to schedule a
review session from 5:30 til 6:30 that evening (location to be announced). You are welcome
to ask any questions during the review session. My intent of that review session is to allow
you to ask any last minute questions about the material on the final exam. This time is for
you - use it!

**Chapter 6**

Lesson: Methods

Topics:
- Predefined methods
- Writing your own methods
- Local variables
- Scope and lifetime of variables
- Void methods
- Returning values from a method
- Overloading methods
- Passing parameters

Readings: Bravaco, Chapter 6

**Chapter 7**

Lesson: Arrays

Topics:
- Creating arrays
- Access array elements
- Array initialization
- The = and == operators
- Passing arrays as arguments
- Returning arrays from methods
- Useful array algorithms
- Two-dimensional arrays
- Command line arguments

Readings: Bravaco, Chapter 7

**Chapter 9**

Lesson: Classes

Topics:
- Object oriented programming
- Classes and objects
- Objects vs. primitives
- UML
- Commenting code
• Writing code for a class
• Accessor and mutator methods
• Instance methods and attributes

Readings: Bravaco, Chapter 9

**Chapter 10**

Lesson: More on Classes
Topics:
• The Dice example
• Constructors
• Shadowing
• Overloading constructors
• Static class members
• The this reference
• Garbage collection

Readings: Bravaco, Chapter 10

**Chapter 12**

Lesson: Inheritance
Topics:
• Superclass constructor
• Overriding methods
• The toString method
• The equals method
• Access modifiers
• The Object class
• The instanceof operator

Readings: Bravaco, Chapter 12