

# IC211- Object Oriented Programming

## Course Policy

### Spring AY2008

#### Instructors:

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#### Course WWW Page:

The course web page can be accessed from your instructor's home page. From there you will find course notes, homework assignments, labs, project assignments and other items of interest as they become available.

#### Required Text:

Core Java 2, Volume I-Fundamentals, 8th Ed., C. S. Horstmann and G. Cornell, Prentice Hall, 2008.

#### Learning Objectives:

1. Understand the fundamentals of object oriented programming.
2. Compare and contrast the differences between object oriented and procedural programming.
3. Describe the solution to a simple software requirement in terms of UML diagrams.
4. Given a problem specification, apply the principles of encapsulation, inheritance, polymorphism and information hiding to design and implement a software solution using Java; Supports Program Outcome (c) via a project grade.
5. Demonstrate the appropriate use of public, private and protected members of a class;
6. Be proficient in the use of an off-the-shelf Integrated Development Environment (IDE) to construct and debug a multi-class object oriented application in Java.
7. Demonstrate the ability to construct and run a Java program from the command line as well as in an IDE.
8. Bring data into a program and present results using command line, GUI and file I/O;
9. Design and construct a simple GUI consisting of buttons and text fields using an API such as Swing.
10. Understand the social issues and responsibilities of computer gaming with regard to violence, graphic content and game addiction and its local and global impact on individuals; Supports Program Outcomes (e) and (g) via a paper.

#### ABET Program Outcomes:

##### CS and IT Program Outcomes

- (c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs (supported by learning objective 4)
- (e) An understanding of professional, ethical, legal, security, and social issues and responsibilities (supported by learning objective 10)
- (g) An ability to analyze the local and global impact of computing on individuals, organizations and society (supported by learning objective 10)

**Honor:**

You are expected to abide by the USNA and Computer Science Department honor policies at all times, including, but not limited to: The Honor Concept of the Brigade of Midshipmen, the Policies Concerning Graded Academic Work, and the Computer Science Department Policy Concerning Programming Projects.

- **Routine Programming Assignments:** Collaborative conversations with regard to syntax and strategies for accomplishing labs, homework and other “routine” out of class programming assignments are allowed, however implementation must be the work of the individual student handing in the finished product. All programming assignments are considered “routine” unless your instructor specifically indicates that it is a “project.”
- **Non-programming homework assignments:** You may collaborate on written homework assignments, but the actual pencil-to-paper must be your own.
- **Quizzes, Exams and Programming Projects:** All quiz’s, written exams, practicum exams and programming projects must be entirely your own work. See the Computer Science Department’s policy concerning programming projects cited above.

**Extra Instruction:**

Extra Instruction (EI) is available and encouraged when your own attempts to understand the material are unsuccessful. Please come prepared with specific questions or areas to be discussed (reading the text and online notes first is always a good idea). If you have missed class, get the notes from a classmate. Do not ask or expect to receive EI on material that you have slept through. Your instructor will be available weekdays by appointment. You are also welcome to stop by their office without an appointment, however there is no guarantee they will be available.

**Quizzes & Homework:**

There are no scheduled quizzes, but your instructor reserves the right to give a quiz at any time. There will be regular homework assignments. Homework not submitted on time will lose 20% for each day late. Homework turned in after the solution has been posted on the web site will receive a zero. All homework will be due at the start of the next class period.

**Projects:**

There will be three programming projects. Project submissions consist of two components: electronic (the program itself), and paper (printout, external documentation, testing runs). Detailed instructions for the electronic submission will accompany the project. The electronic and paper versions of programs should be identical. Projects are due by close of business on the date specified in the assignment. Projects in your instructor’s possession when they arrive in the morning (including their mailbox or slid under their door) are considered to have been submitted by close of business on the previous working day. Projects submitted “n” working days late will receive a 3<sup>n</sup> point penalty. Note: All three projects must be submitted in order to pass the course.

**Exams:**

There are three scheduled exams. Each exam will consist of a written portion and a programming portion. The 6 and 12-week exams will focus on the recent material and the final will be comprehensive. If for some reason a make-up exam will be required, inform your instructor as soon as possible, but no later than 1 week in advance.

**Absences:**

Please notify your instructor of any planned absences in advance (MOs, medical appointments, etc). You are responsible for obtaining any material missed due to an absence. Additionally, you must ensure your work is submitted on time regardless of other commitments, i.e. duty, sick call, etc. Should bona fide emergencies arise, it is your responsibility to coordinate with the instructor (emergency leave, hospitalization, SIR, etc.).

**Class Conduct:**

You are expected to uphold all professional standards while in class. Sleeping in class is prohibited.

**Section Leader Responsibilities:**

In addition to reporting midshipmen absences, the section leader is responsible for alerting the CS department office (MI-365 x3-6800) in case the instructor is absent. While waiting for a substitute instructor, the section leader should direct the class in productive study. The scheduled lectures and labs are available on the course web site. Under no circumstances should midshipmen dismiss themselves from a regularly scheduled class.

**Food/Beverages:**

Food is not permitted in the classroom or labs. Beverages are allowed, but only in closeable containers (soda cans are NOT closeable).

**Course Grade:**

|                             | 6 week    | 12 week       | Final         |
|-----------------------------|-----------|---------------|---------------|
| Homework, Labs & Quizzes    | 30%       | 20%           | 15%           |
| 6 week written / practicum  | 20% / 20% | 12.5% / 12.5% | 7.5% / 7.5%   |
| 12 week written / practicum | n/a       | 12.5% / 12.5% | 7.5% / 7.5%   |
| Final written / practicum   | n/a       | n/a           | 12.5% / 12.5% |
| Projects                    | 30%       | 30% (15% ea)  | 30% (10% ea)  |

Submitted,

CDR Brian A. Osborn



Course Coordinator

Approved,

CAPT Thomas A. Logue



Department Chair