

Section 1: MWF 09:30 - 10:20 AM

Section 2: MWF 10:30 - 11:20 AM

class webpage: <a href="http://www.csc.lsu.edu/~duncan/courses/csc1350-s14">http://www.csc.lsu.edu/~duncan/courses/csc1350-s14</a>
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Instructor: William E. Duncan

Office: 2162 Patrick Taylor Hall

Email Address: [duncan@csc.lsu.edu](mailto:duncan@csc.lsu.edu)

Office Hours: <http://www.csc.lsu.edu/~duncan/sched.htm>

## Course Description:

Fundamentals of algorithm development, program design and structured programming using an object-oriented language. (4 sem. hrs.)

## Textbooks:

Required: Cay Horstmann, Java Concepts 7/e Early Objects (ISBN: 978-1118431122)

Recommended: J. Glen Brookshear, Computer Science: An Overview 8/e (ISBN: 0321247264)

## Prerequisites:

1. Credit or registration in MATH 1550.
2. Credit will not be given for both this course and CSC 1240 or 1250 or 1253 or ISDS 3107.

## Goal:

To build problem-solving skills from an algorithmic viewpoint using the Java programming language. By the end of this course the student will:

- understand the origins and early development of computer science as an academic discipline as well as the basic issues underpinning the discipline,
- employ programming principles in problem-solving,
- Design and analyze basic search and recursive sort algorithms, and
- explore the fundamentals of the object-oriented programming (OOP) paradigm.

## Evaluation:

Grading will be based on five-minute **unannounced** short quizzes, three exams, computer lab exercises and programming projects.

Quizzes	10%
Exam 1	15%
Exam 2	15%
Final Exam	20%
Computer Lab Exercises	15%
Programming Projects	25%

Final grade will be determined by overall average as follows:

A	90 - 100
B	80 - 89.99
C	70 - 79.99
D	50 - 69.99
F	0 - 49.99

## Class Policies:

- Attendance: Attendance will only be taken on exam days. **Unannounced** Short quizzes will be given during the semester. Each quiz will be based on the previous lecture or homework. **There will be no make-up for missed quizzes.** Students are responsible for all information presented in class (written and oral). It is your responsibility to obtain the notes and assignments from a willing classmate if you **MUST** miss class.
- Collaborative Work: Any work submitted for grading must represent your own work (and yours alone). *High standards of academic integrity are crucial for the University to fulfill its educational mission. To uphold these standards, procedures have been established to address academic misconduct.*[from LSU Code of Student Conduct]. It is assumed that all students enrolled in this course have read the Code of Student Conduct - specifically section 5.1 (Academic Misconduct) and section 8.5 (Academic Misconduct by Undergraduate Students) or section 8.6 (Academic Misconduct by Graduate Students). The Code of conduct is available at:

[http://appl003.lsu.edu/slas/dos.nsf/\\$Content/Code+of+Conduct](http://appl003.lsu.edu/slas/dos.nsf/$Content/Code+of+Conduct)

- Due Dates: All work intended for grading must be submitted on time on the due date. Any late submission counts for no credit.
- Missed Exam: Students are encouraged to take every exam. In the unusual circumstances you must miss an exam due to medical reasons or other unforeseen emergencies, obtain an official excuse from the Dean's office as soon as possible. If you obtain a valid excuse from the Dean's office, the instructor reserves the right to schedule a make-up exam or allow your final exam to count for a higher percentage of your course grade.
- Special Accommodation: Students who have a disability that require accomodation(s) should make an appointment with the Office of Disability Services (Phone: (225)578-5919 or TDD: (225)578-2600) to discuss their specific needs and present a letter from the ODS informing the instructor of their needs. All such matters, by University regulations, are strictly confidential.

- Cellular phone: For the duration of each class meeting all cell phones must be turned off. They have proven to be disruptive to an effective learning environment. Do not make or receive phone calls in class.
- Grading Corrections: If you believe a mistake in grading was made, inform the instructor within five school days of receiving the grade. You will not be penalized even if no mistake occurred.
- Exam Dates:
  - ⊙ Exam 1 - Monday, February 10
  - ⊙ Exam 2 - Monday, March 24
  - ⊙ Final Exam
    - ▷ Section 1 - Saturday, May 10, 10:00 am - noon
    - ▷ Section 2 - Monday, May 5, 10:00 am - noon
- Important Dates:
  - ⊙ January 24 - Final date to drop without a W
  - ⊙ January 27 - Final date for adding courses and making section changes
  - ⊙ April 4 - Final date for resigning from the University and/or dropping courses
  - ⊙ May 5-10 - Final examinations
- Topics we will study: (not necessarily in this order)
  1. Introduction
  2. Using Objects
  3. Implementing Classes
  4. Fundamental Data Types
  5. Decisions
  6. Iteration
  7. Array Lists and Arrays
  8. Files and Streams
  9. Sorting and Searching

## Problem Sets

Topic	Reading	Exercises
Introduction	§1.1-1.7	SC:4-7, 9-20; R:1.7-1.9 E:1.5-1.11
Using Objects	§2.1-2.8	SC:1-29, 35-38; R:2.1-2.6,2.19
Implementing Classes	§3.1-3.4, 3.6-3.7	SC:1-3, 6-15, 21-22, 24-26
Fundamental Data Types	§4.1-4.5	SC:1-16, 22-26 R:4.1-4.10, 4.12-4.13
Decisions	§5.1-5.4, 5.7-5.8	SC:1-23, 33-37 R:5.1-5.8, 5.20, 5.29-5.31
Iteration	§6.1-6.5, 6.7-6.8	SC:1-25, 37-41; R:6.1-6.11
Arrays & Array Lists	§7.1, 7.3, 7.6, 7.7	SC:1-6, 13-19, 30-39; R:7.1-7.3
Files and Streams	§11.1-11.2	SC:1-9
Sorting and Searching	§14.1-14.3, 14.6-14.8	SC:1-6, 18-20, 27-28