

# Syllabus

## Professor

John R. Hubbard  
Office: 201 Jepson Hall.  
Hours: Mon 3:00-4:00, Tue 3:30-4:30, Wed 4:00-5:00; other times by appointment.  
Email: j.hubbard@richmond.edu  
Phone: 289-8086 (office), 804-536-0674 (mobile), 378-8257 (home).

## Textbook

*Data Structures with Java*, by John R. Hubbard and Anita Huray, Prentice-Hall, 2004, 0-13-093374-0.

## Supplement

*Schaum's Outline of Data Structures with Java*, Second Edition by John R. Hubbard, McGraw-Hill, 2007, 0-07-147698-9.

## Schedule

|   |                               |
|---|-------------------------------|
| 15 Ch. 1: Introduction, UML                           | 17 Ch. 2: Abstract Data Types |
| 22 Ch. 3: Arrays                                      | 24 Ch. 4: Linked Structures   |
| 29 Ch. 5: Stacks                                      | 31 Ch. 6: Queues              |
| 5 Ch. 7: Collections                                  | 7 Review                      |
| 12 Test 1 on Ch. 1-6                                  | 14 Ch. 8: Lists               |
| 19 Ch. 8: Lists                                       | 21 Ch. 9: Hash Tables         |
| 26 Ch. 10: Recursion                                  | 28 Ch. 10: Recursion          |
| 4 Ch. 11: Trees                                       | 6 Review                      |
| 11  | 13                            |
| 18 Test 2 on Ch. 7-10                                 | 20 Ch. 12: Binary Trees       |
| 25 Ch. 12: Binary Trees                               | 27 Ch. 13: Search Trees       |
| 1 Ch. 14: Heaps                                       | 3 Ch. 14: Priority Queues     |
| 8 Ch. 15: Slow Sorts                                  | 10 Review                     |
| 15 Test 3 on Ch. 11-14                                | 17 Ch. 15: Fast Sorts         |
| 22 Ch. 15: Linear Sorts                               | 24 Review                     |
| Mon Apr 28 9:00a-12:00n Final Examination on Ch. 1-15 |                               |

## Labs

Each lab write-up will be posted on Netfiles in advance. Lab work is to be completed in the lab and must be submitted before the end of the lab. You may work with a lab partner to complete your lab work.

## Projects

Programming projects will be assigned periodically. The solutions to each project will be posted on Netfiles after its due date. No project will be accepted after its solution has been posted. You are bound by the Richmond Honor Code to consult no one except this professor on your projects.

## Grades

Grades will be posted online at our Blackboard course website. Final grades will be computed by the formula:

|                   |      |
|-------------------|------|
| Labs & Homework   | 10 % |
| Projects          | 15 % |
| Preliminary Tests | 45 % |
| Final Examination | 30 % |

## Attendance Policy

Don't miss class. If you do, consult with your professor about how to recover from your absence.

## The Symbolic Reasoning Field of Study Requirement (FSSR)

The objectives of this course include the ability to formulate and solve a variety of problems in the sciences using computer programs. These programs are expressed symbolically, and they are obtained through the application of deductive logic. Consequently, this course satisfies the Symbolic Reasoning Field of Study requirement for the B.A. and B.S. degrees.

## Academic Integrity

The Richmond Honor Council has this written policy:

*All academic work, written or otherwise, submitted by a student to fulfill a course requirement is expected to be the result of the student's own thought, research, or self-expression. A student will have committed plagiarism if the student has reproduced someone else's work without acknowledging its source. Plagiarism is no more and no less a violation of the Honor Code than lying, cheating, or academic theft.*

This professor regards this Honor Code as essential to the academic integrity of the university.