

# CMSC 150 Introduction to Computing Syllabus

Fall 2017

## Course Information

### Instructor Information

**Instructor:** Jory Denny  
**Email:** [jdenny@richmond.edu](mailto:jdenny@richmond.edu)  
**URL:** <http://www.mathcs.richmond.edu/~jdenny>  
**Office:** Jepson 226  
**Office Hours:** M 1:00pm-4:00pm; T 3:00pm-5:00pm; F 9:00am-12:00pm, 1:00pm-5:00pm; Other times by appointment

Brief Teaching Philosophy: To state it simply, I believe in learning real world skills and attempting to solve challenging real world problems. However, I do not believe in ruining someone's grade because they did not succeed 100%. I offer bonus credit on almost every assignment to help with this.

**Lab Assistant:** Emily Everett  
**Email:** [emily.everett@richmond.edu](mailto:emily.everett@richmond.edu)

### Section Information

#### CMSC 150-04

Lecture:	TR	10:30am-11:45am	Jepson G30
Lab:	W	3:00pm-5:00pm	Jepson G30
Final:	R Dec. 14	2:00pm-5:00pm	Jepson G30

### Requirements

**Prerequisite:** Basic knowledge of mathematics, algebra, and geometry

### Textbook

**Required:** *Introduction to Java<sup>TM</sup> Programming, Brief Version*, Y. Daniel Liang, Pearson, Eleventh Edition, 2017.  
**Recommended\*:** *Introduction to Java<sup>TM</sup> Programming, Comprehensive Version*, Y. Daniel Liang, Pearson, Eleventh Edition, 2017.  
**Additional Resources:** <http://www.pearsonhighered.com/liang>

*\*Recommendation is for those interested in computer science past this course. The book is an amazing resource for understanding what Java can offer to a full application.*

### Course Website

<http://www.mathcs.richmond.edu/~jdenny/Courses/150>

## Course Outcomes

After taking this course a student will be able to:

- Define computer science,
- Diagram basic computer organization, the Java virtual machine, and their relationship,
- Write simple programs in Java to solve application oriented problems using the following features:
  - Primitive data types,
  - String and Math classes of Java,
  - Arrays,
  - Arithmetic and boolean expressions,
  - Control flow (if/else, for, while, etc.),
  - Methods,
  - Input/output, and
  - Simple classes,
- Understand treatment of scope, parameter passing, and data (primitive and user-defined) in Java, and
- Write programs in Java to perform basic searching and sorting of data in arrays including Linear Search, Binary Search, Insertion Sort, and Merge Sort.

## Course Content and **\*\*\*Tentative\*\*\*** Schedule

During the semester we will discuss the following topics:

Week	Topic	Reading
1	Introduction to Computing, basic programming	Ch 1
1, 2	Primitive data, expressions, Input, Math, and String	Ch 2, 4
3, 4, 5	Control Flow	Ch 3, 5
5, 6	Review; Midterm	
6, 7	Methods	Ch 6
7, 8	File I/O	Ch 12
8, 9	Recursion	Ch 18
9, 10	Arrays	Ch 7, 8
11	Objects	Ch 9
11, 12	Encapsulation	Ch 10
12	Inheritance and Polymorphism	Ch 11
12	Preview of Advanced Topics	
12, 13	Performance; Algorithms for Searching and Sorting	

*Note the schedule is subject to change.*

## Assignments and Grading

All assignments will be announced in class and details will be posted on the course web page. If you miss class for any reason, it is *your* responsibility to find out what you missed.

Your grade will be based on five components:

1. **Quizzes — 15%** — There will be in-class quizzes over reading material for the course.
2. **Programming Assignments — 15%** — There will be ten out-of-class programming assignments. These will be turned in through a hard and soft copy.
3. **Exams — 30%** — There will be one mid-term exam that has both a written and programming component.
4. **Programming Project — 30%** — There will be one out-of-class programming project at the end of the semester spanning multiple weeks.
5. **Culture Assignment — 10%** — Each student is to create a blog (or write an in-depth paper) during the semester. This is to give the student the opportunity to explore extra topics and computing interests.

Final grades will be assigned according to the following scale:

Final Grade	Percentage ( $x$ )
A <sup>+</sup>	$96.5\% \leq x$
A	$92.5\% \leq x < 96.5\%$
A <sup>-</sup>	$89.5\% \leq x < 92.5\%$
B <sup>+</sup>	$86.5\% \leq x < 89.5\%$
B	$82.5\% \leq x < 86.5\%$
B <sup>-</sup>	$79.5\% \leq x < 82.5\%$
C <sup>+</sup>	$76.5\% \leq x < 79.5\%$
C	$72.5\% \leq x < 76.5\%$
C <sup>-</sup>	$69.5\% \leq x < 72.5\%$
D <sup>+</sup>	$66.5\% \leq x < 69.5\%$
D	$62.5\% \leq x < 66.5\%$
D <sup>-</sup>	$59.5\% \leq x < 62.5\%$
F	$x < 59.5\%$

## Policies

### Contact with Lab Assistants

All email contact with lab assistants should CC the primary instructor of the course.

### Course Conduct

The student will be respectful to the instructor, lab assistants, and other students. Misconduct will not be tolerated. This includes excessive phone usage, napping, rude commentary, or other disrespectful behavior.

### Attendance and Late Assignments

Attendance at all lecture and lab sessions is advised. There will be no make-up exams and no late assignments accepted unless permission from the instructor is sought **in advance**, when possible. **No exceptions!**

### Collaboration and Using Resources

For the assignments in this class, discussion of concepts with others is encouraged, but all assignments must be done on your own, unless otherwise instructed. Reference every source you use, whether it be a person, a book, a paper, a solution set, a web page, etc., plagiarism is strictly forbidden. **You must write up your assignments in your own words. List all sources for programs inline in comments or in a comment at the top of the file. For blog entries, properly quote words used and cite sources at the end of your entry.**

### Academic Integrity

All students are expected to be in accordance with the student honor code. <http://studentdevelopment.richmond.edu/student-handbook/honor/the-honor-code.html>. Note, cheating, lying, plagiarism, academic theft, etc. are not tolerated. If you know another student is breaking the code it is your responsibility to report them to me and the university.

### Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the appropriate university coordinator, <http://disability.richmond.edu>.