

# CS 1050

## Algorithm Design & Programming I

### Introduction

This course provides the student with experience in developing algorithms, designing, implementing and testing programs. It discusses the fundamental concepts behind object-oriented programming, and uses the Java language as an implementation vehicle.

### Prerequisites

MATH 1100/1120 and CS1040 (C- or better) or passing Pretest screening quiz.

### Instructors

Joe Williams: [guilliamsd@missouri.edu](mailto:guilliamsd@missouri.edu)

Office Location: EBW 123

Office Hours: Monday and Wednesday 1:00pm – 2:00pm (may change)

### TAs

Mian Pan : [mpry6@mizzou.edu](mailto:mpry6@mizzou.edu) office hours Wednesday 11-12 in room EBW239

Aleks Lobzhanidze [agl7dd@mizzou.edu](mailto:agl7dd@mizzou.edu) office hours Friday 1-2 in room EBW250

Alan Lafferty: [awlxb6@mizzou.edu](mailto:awlxb6@mizzou.edu) office hours Tuesday 12-1 in room EBW239

Sachin Meena: [sm3z5@mizzou.edu](mailto:sm3z5@mizzou.edu) office hours Monday 3-4 in room EBW239

Michael Eschbacher: [mjevxd@mizzou.edu](mailto:mjevxd@mizzou.edu) office hours Thursday in room EBW239

TUTORING SESSIONS: Weekly on Wednesdays from 6-8pm.

Feel free to visit the office hours of any of the TAs for the class.

### Textbook

Required: Deitel and Deitel, *Java: How to Program*, 8/E.

### Schedule

- Lecture
  - Monday and Wednesday 11:00-11:50am, Neff Hall, Room 204
- Labs (one of the following)
  - Section A Monday 8:00am – 10:50am, EBW 144
  - Section B Wednesday 8:00am - 10:50am, EBW 145
  - Section C Tuesday 8:00am – 10:50am, EBW 144
  - Section D Monday 12:00pm – 2:50pm, EBW 144
  - Section E Tuesday 2:00pm – 4:50pm, EBW 145

Check with the Schedule of Courses published on myZou for room changes.

## Course Web Page (Use your PawPrint ID)

<http://blackboard.missouri.edu>

### Topics

- Primitive data types: int, double, String, etc
- Branching/ Conditional statements: if, if-else, switch, ...
- Iteration/ Loops: while, for,...
- Classes, Methods and Objects
- Arrays
- Encapsulation
- Inheritance
- Polymorphism
- Exception Handling
- File I/O
- Recursion

### Grading

The overall course grade will be calculated as a weighted average of assignments using the following values (1000 points possible):

- Quizzes (unannounced) & Class participation: 10% (11 at 10 points each)
- Homeworks: 15% (3 at 50 points each)
- Labs: 30% (11 at 30 points each)
- Exam 1: 10% (1 at 100 points)
- Exam 2: 10% (1 at 100 points)
- Final Exam: 25% (1 at 250 points)

Letter grades in the course will be assigned using the following scale:

A+	>= 98	A	>= 94	A-	>= 90
B+	>= 89	B	>= 84	B-	>= 80
C+	>= 79	C	>= 74	C-	>= 70
D+	>= 69	D	>= 64	D-	>= 60
		F	< 60		

### Homeworks & Lab Assignments

Three homework assignments, spread throughout the semester, will be short problem sets concerning the materials presented in lecture and are designed to help you with studying for exams. Solutions to all homework assignments must be typed when submitted. Handwritten submissions will incur a stiff penalty.

#### Weekly labs

- ✓ will require programming in Java
- ✓ will require you to submit your program by the end of your assigned lab session
- ✓ will **NOT** be accepted after the submission deadline stated on the lab assignment document
- ✓ will **NOT** have make up opportunities
- ✓ will allow you to drop one lab grade for the semester. If you miss a lab you can drop that

- one or drop your lowest grade if you attend all labs
- ✓ will have attendance taken at every lab
- ✓ cannot be submitted from anywhere but the lab unless stated ahead of time on the assignment

Once again, late labs will **NOT** be accepted.

All programming assignments are to be implemented on [babbage.cs.missouri.edu](http://babbage.cs.missouri.edu). The use of this system will be detailed during the first lab session of the class. We do not have the resources to assist students who choose to disregard these instructions and use a different system.

### Course Calendar

<i>Week of</i>	<i>Monday</i>	<i>Wednesday</i>	<i>Sample Labs</i>
Aug 24	Intro & Pretest	Chapter 1 – Intro to Java	LAB0
Aug 31	Chapter 2 – Java Applications	Chapter 2 – (continued) Chapter 3 – Classes and Objects	LAB1
Sep 7	<b>NO CLASS – LABOR DAY HOLIDAY</b>	Chapter 3 – Classes and Objects	<b>NO LAB</b>
Sep 14	Chapter 4 – Control Statements Part I	Chapter 4 – (continued) Chapter 5 – Control Statements Part II	LAB2
Sep 21	Chapter 5 – Control Statements Part II and Exam 1 Review	<b>EXAM 1</b>	<b>NO LAB</b>
Sep 28	Chapter 6 – Methods	Chapter 6 – (continued)	LAB3
Oct 5	Chapter 7 – Arrays and ArrayLists	Chapter 7 – (continued)	LAB4
Oct 12	Chapter 16 – Strings and Characters	Chapter 16 – (continued)	LAB5
Oct 19	Chapter 8 – Classes and Objects	Chapter 8 – (continued)	LAB6
Oct 26	Chapter 9 – Inheritance	Chapter 9 – (continued) Chapter 10 – Polymorphism	LAB7
Nov 2	Chapter 10 – (continued) and Exam 2 Review	<b>EXAM 2</b>	<b>NO LAB</b>
Nov 9	Chapter 11 – Exception Handling	Chapter 11 – Exception Handling	LAB8
Nov 16	Chapter 17 – Files and Streams	Chapter 17 – (continued)	LAB9
<b>Nov 23</b>	<b>NO CLASS – FALL BREAK</b>	<b>NO CLASS – FALL BREAK</b>	<b>NO LAB</b>
Nov 30	Chapter 19 – Searching and Sorting	Chapter 19 – (continued)	LAB10
Dec 7	Chapter 18 – Recursion	Chapter 18 (continued) and Final Exam Review	LAB11
	<b>FINAL EXAM</b>		

**Other important dates include:** (for complete list, <http://registrar.missouri.edu/dates-deadlines.php>)

Sep. 1 –Sep 28 [Drop only](#)

Sep. 28 Last day to [drop course](#) without a grade

Nov. 2 Last day to [withdraw from a course](#)

For other important deadlines see:

[http://registrar.missouri.edu/General\\_Resources/Dates\\_and\\_Deadlines.htm](http://registrar.missouri.edu/General_Resources/Dates_and_Deadlines.htm)

## Course Policies

- No late submissions will be accepted for homework assignments. No late submissions will be accepted for lab assignments. There will be no makeups of missed lab work .
- Any act of **cheating** will result in a grade of zero being given to all students involved and a report will be filed with the Provost's office. You are encouraged to discuss problems and concepts related to the assignments in this class, however you are not allowed to share your answers/solutions/code with any other students.
- Make-up exams will only be given in cases where prior notification is given to the instructor that extenuating circumstances prevent the student from attending the regularly scheduled exam. Please provide notification as early as possible to arrange alternate accommodations. Makeup exams will not be the same as the original exam. They will be in essay form and conducted in my office at 7AM.
- **DO NOT** send out bulk emails to the class email list. Misuse and abuse of the class email list for spam, soliciting or offering payment for coursework, distributing course materials, airing complaints, etc. will be reported to the appropriate university officials and result in automatic withdrawal from the class.

## ADA Notice

If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.

To request academic accommodations (for example, a notetaker), students must also register with the Office of Disability Services, AO38 Brady Commons, 882-4696. It is the campus office responsible for reviewing documentation provided by students requesting academic accommodations, and for accommodations planning in cooperation with students and instructors, as needed and consistent with course requirements. For other MU resources for students with disabilities, click on "Disability Resources" on the MU homepage.

## Academic Integrity

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a

breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor.

Additional information concerning the University's Academic Integrity policies can be found at:

- <http://mbook.missouri.edu>
- <http://academicintegrity.missouri.edu/guidelines/>
- <http://facultycouncil.missouri.edu/handbook/article-6.html>