### **OVERVIEW**

	CODE	SCHED	ULE		INSTRUCTOR
Lecture:	CS 110-10 (CRN 13530)	MWF	12:00 to 12:50	ESB 801	Ron Reaser   ESB 759   email   office hours
Lab:	CS 110-11 (CRN 10765)	T	09:00 to 10:50	ESB 756	Nikola Janevski   ESB 756   email
Lab:	CS 110-12 (CRN 10766)	R	11:00 to 12:50	ESB 756	Naman Kohli   ESB 756   email
Lab:	CS 110-13 (CRN 11818)	W	03:00 to 04:50	ESB 756	Naman Kohli
Lecture:	CS 110-01 (CRN 10760)	MWF	01:00 to 01:50	ESB 801	Ron Reaser
Lab:	CS 110-02 (CRN 13531)	R	03:00 to 04:50	ESB 756	Daksha Yadav   ESB 756   email
Lab:	CS 110-03 (CRN 10767)	R	09:00 to 10:50	ESB 756	Daksha Yadav
Lab:	CS 110-04 (CRN 13563)	F	03:00 to 04:50	ESB 756	Daksha Yadav

This syllabus, course calendar, and assigned work are available via the instructor's website and should be checked regularly.

**Learning Outcomes:** Upon successful completion of this course, students will be able to program efficiently in Java at an intermediate level. Students will understand how to use control structures, arrays, input/output techniques, object oriented programming, and graphical user interfaces to develop basic software programs according to provided specifications. They will also gain a strong foundation for future computer science topics.

**Textbook:** The **recommended** text is *Java Concepts: Early Objects* 7e by Cay Horstmann (ISBN 978-1-1184-3112-2 paperback or ISBN 978-1-1184-2301-1 looseleaf) for reading and reference. Older editions or related books by Horstmann are acceptable.

Requirements: Students are expected to use Eclipse Luna for Java Developers as their IDE with JRE 8 or JDK 8 as their virtual machine. This or comparable software is available in 756 ESB (your assigned lab) and on the Ubuntu machines in 813 ESB (an auxiliary lab) and can also be installed easily on personal computers. To access the lab facilities, you must have a working MyID account, a working CSEE lab account, and access to the lab rooms using your Mountaineer Card. You may visit the CSEE Systems Helpdesk in 701 ESB for more details or speak to your TA. Not having a usable personal computer or internet connection or not acquiring lab access will not excuse you from course requirements.

#### GRADING

**Calculation:** You will have 3 exams (each weighted equally totaling 60%) and 3 projects (each weighted equally totaling 40%). Each will be given a letter grade with corresponding point value according to the rubric below. Your semester grade will be the highest letter grade that the weighted average of your six grades (plus your performance bonus if any) meets or exceeds.

**Performance Bonus:** If you maintain good performance in your semester lab work and good participation in lecture then 0.5 bonus points will be added to your weighted average. This performance bonus may be denied if you have any conduct violations.

Rubric: A/4.0 is exemplary, B/3.0 is good, C/2.0 is mediocre, D/1.0 is poor, and F/0.0 is unsatisfactory.

### **COURSE POLICIES**

**Attendance:** Regular attendance is important for learning. If you do not attend, you are unlikely to pass. However, attendance will not be enforced. You are responsible for announced or unannounced work missed due to absences.

**Deliverables:** Projects and other assignments are to be submitted online prior to the instructor's deadline. You must retain personal, secure copies of all your work. Work must be in the correct expected format with valid content to be graded.

**Exams:** The exams and other in-class assessments in this course are closed book, notes, and devices without explicit permission otherwise. You must show photo identification when turning in your exams and assessments or they may not be accepted.

All exams will take place as scheduled and students forfeit any missed time. If you are unable to attend an exam because of a scheduled event or day of special concern, you must provide your instructor with notice 7 days in advance to request rescheduling. If the event is university affiliated, you must provide a written note from the associated coach or faculty. Otherwise, the instructor will determine any necessary documentation and has final discretion. If you miss an exam because of a personal, family, work, or medical emergency, you must notify the instructor no later than 24 hours after the exam session to request a make-up at the instructor's discretion. If you fail to follow these policies, your missed exam will not be graded.

**Conduct:** In all lecture and lab sessions, be attentive to the instructor and work only on assigned or approved material; do not arrive late or leave early without notice; do not converse loudly with others; put away all electronic devices not in use for note-taking or accessibility; treat all staff and students in a courteous and professional manner; do not be disruptive to the morale of the instructors or your peers.

### **UNIVERSITY POLICIES**

**Privacy Rights:** Under the Family Educational Rights and Privacy Act of 1974, students have the right to privacy of their academic information. Without a FERPA waiver on file with the instructor or the registrar, no such information can be released to outside parties, including parents.

**Accessibility:** Official documentation from the Office of Accessibility Services must be provided to your instructor before any accessibility accommodations can be granted. If you are authorized for accommodations, you still must notify your instructor 7 days in advance of any requested implementation of these accommodations so that the instructor has preparation time. Otherwise, the accommodations may be denied.

**Social Justice:** West Virginia University and your instructor are committed to social justice and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Discrimination on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color, or national origin are prohibited. If you experience a violation of this policy, please contact an appropriate authority.

### **ACADEMIC INTEGRITY POLICY**

Academic integrity is being truthful in all your commitments to the course. It is important that you fully understand the details of this policy. The following are some forms of fraud which violate academic integrity.

- Working with another person on assessed work without permission.
- Allowing others to access your work, even without knowledge or intent, or vice versa.
- · Completing or submitting work for somebody else or vice versa.
- Reusing work from another semester or course without permission.
- · Requesting or distributing unauthorized materials such as old exams.
- · Fraudulently representing your identity or work.
- Plagiarism, the use of the work of others without attribution.

This is not an exhaustive list of possible fraudulent acts. If you believe you or somebody else may be in violation of this policy, contact your instructor immediately. Honesty about fraud is valued over denial. Suspicious activity may be investigated through interviews.

Penalties for fraud are at the instructor's discretion based on the evidence and intent of the perpetrators. The penalties are as follows.

- For a first occurrence, you will fail the offending work. You will also receive a 1-letter grade reduction in your semester grade.
- For any subsequent occurrence, you will immediately fail the course and a report on your violation will be filed to the university to be permanently recorded. You will be expelled from the course and not allowed to attend sessions. This will be final.

If fraud is detected, you will be notified via e-mail. Failure to receive or acknowledge your notification does not excuse the fraud or avoid the penalties. All communication regarding these occurrences will be handled via email, not in person, to facilitate documentation.

You may be required to complete an affidavit or worksheet on the topic of academic integrity during this course. The instructor may refuse to grade any or all work without satisfactory completion of this requirement.

## **BASICS**

Chapter 1 Introduction
Chapter 2 Using Objects
Chapter 3 Implementing Classes
Chapter 4 Fundamental Data Types

1		
Mon	first day of classes	Tue
1/12	syllabus, intro	1/13
Wed	1.1-1.4	
1/14		Thu
Fri	1.5-1.7	1/15
1/16	last day to drop	
2		
Mon	Martin Luther King Day	Tue
1/19	Recess	1/20
Wed	2.1-2.3	
1/21		Thu
Fri	2.4-2.8	1/22
1/23		
3		
Mon	2.9-2.10 alternate	Tue
1/26		1/27
Wed	3.1-3.2.3	
1/28		Thu
Fri	3.2.4-3.6	1/29
1/30		
4		
Mon	3.7	Tue
2/2	4.1.1	2/3
Wed	4.1.2-4.2.4	
2/4	4.2.5	Thu
Fri	4.3	2/5
2/6		
5		
Mon	4.5	Tue
2/9		2/10
Wed	1.4 (dev w/o IDE), review	
2/11		Thu
Fri	Exam 1	2/12
2/13		

## **A**LGORITHMS

Chapter 5

Chapter 6 Loops
Chapter 7 Arrays and Array Lists
Chapter 11 I/O, Exceptions [Lab]
Chapter 14 Searching and Sorting

Decisions

Onaptor	14 Octaioning and Cortain	9
6		
Mon	5.1-5.2.3	Tue
2/16		2/17
Wed	5.2.4-5.3	
2/18	5.4	Thu
Fri	5.7-5.8	2/19
2/20		
7		
Mon	6.1, 6.3	Tue
2/23		2/24
Wed	6.4-6.5, 6.7.1	
2/25	6.7.5, 6.7.2	Thu
Fri	6.7.3, 6.7.6, 6.8	2/26
2/27		
8		
Mon	6.9	Tue
3/2	7.1.1-7.1.2	3/3
Wed	7.1.3-7.2	
3/4		Thu
Fri	7.2, 7.3.1-7.3.5	3/5
3/6	semester midpoint	
9		
Mon	7.3.6-7.3.8	Tue
3/9		3/10
Wed	7.3.9, 7.5	
3/11	7.6	Thu
Fri	7.7, 14 (bubble sort)	3/12
3/13		
Sat	Project 1	
3/14		
10		
Mon	14 (selection sort)	Tue
3/16	14 (insertion sort)	3/17
Wed	review	
3/18		Thu
Fri	Exam 2	3/19
3/20	last day to withdraw	
SB	Spring Break Recess	

# **THEORY**

Chapter 13 Recursion
Chapter 8 Designing Classes
Chapter 9 Inheritance
Chapter 10 Interfaces
Chapter 12/15 OO/JCF [Optional]

11		
Mon	13 (factorial)	Tue
3/30		3/31
Wed	13 (Fibonacci)	
4/1		Thu
Fri	Good Friday	4/2
4/3	Recess	
12		
Mon	13 (string reversal)	Tue
4/6		4/7
Wed	13 (binary search)	
4/8		Thu
Fri	13 (flood fill)	4/9
4/10		
Sat	Project 2	
4/11		
13		
Mon	game theory	Tue
4/13		4/14
Wed	game theory	
4/15		Thu
Fri	8.1-8.3	4/16
4/17		
14		
Mon	8.4-8.5	Tue
4/20	cascading calls	4/21
Wed	9.1-9.2	
4/22	9.3	Thu
Fri	9.4	4/23
4/24	9.5	
15	10.1.10.0	
Mon	10.1-10.3	Tue
4/27	10.5	4/28
Wed	10.5	71
4/29		Thu
Fri	review	4/30
5/1	last day of classes	
Sat	Project 3	
5/2		
FX	From O for Continue 4	
Tue	Exam 3 for Section 1	
5/5	11:00am to 1:00pm	
Wed	Exam 3 for Section 10	
5/6	3:00pm to 5:00pm	