

Programming with Java, Boston University

MET CS 232, Fall 2020

Day: Tuesday, 6:00-8:45 PM

Location: Boston Campus, Building: CAS, Room: 114A

Instructor: Mike Tizio

E-mail: mtizio@bu.edu

Office Hours: Before class by appointment (Tuesday 5:00 PM to 6:00 PM)

COURSE DESCRIPTION

This course covers the elements of object-oriented programming and the Java Programming Language. Primitive data types, control structures, methods, classes, arrays, strings, inheritance and polymorphism, interfaces, user interfaces using MVC, exceptions, and streams. Laboratory course. 4 cr.

PREREQUISITE

Programming experience in a high-level language other than Java.

LEARNING OBJECTIVES

- To understand the essential concepts in computer science
- To be introduced to object-oriented programming
- To learn the Java programming language

TEXT

Required: Java: An Introduction to Problem Solving and Programming, 8/E, by Walter Savitch, copyright 2018, published by Pearson Education Inc., ISBN-13: 978-0-13-446203-5.

GRADING

Programming assignments/Homework	40% (5%, 5%, 5%, 25%)
Class Participation and Attendance	10%
Midterm	25%
Final Presentation	25%

PROGRAM EVALUATION CRITERIA

Program correctness	60%
Documentation	20%
Readability	20%

SCHEDULE

DATE	TOPIC	READING (TEXT CHAPTER)
09/08	Introduction, Overview/UML/Pre and Post Conditions	1
09/15*	Basic Computation: Primitive Types, Strings, Interactive I/O	2
09/22	Flow of Control: Branching and Loops	3, 4
09/29	Defining Classes and Methods, Objects and Methods	5, 6
10/06*	Arrays	7
10/13	No Class	
10/20*	Arrays/Array Lists/Review (Midterm Q & A)	7, 12.1
10/27	Midterm	
11/03*	Inheritance/Polymorphism/Interfaces/ Exception Handling (midterm/homework review and demo)	8, 9
11/10	Streams, File I/O, and Networking	10
11/17*	Other Topics (Dynamic Data Structures)/Object Oriented design/Cloud Basics/Recursion	11, 12
11/24	Window Interfaces – AWS/Swing Objects/JavaFX	
11/01	Advanced Java Features 1.8 and 1.9/ Android Development - Introduction	
12/08	Final Presentation	
12/15	Final Presentation	

*Assignment Due Date *Graded Assignment Due Date

Fall 2020 COVID-19 Policies

Classroom Rotations: Classrooms on campus have new capacities that follow guidelines issued by state and local health and government authorities related to COVID-19 and physical distancing. Before the beginning of the class, and throughout the semester, I will be reaching out to students who have indicated that they want to attend the classroom in-person. Our classroom holds 11 students, and therefore we will have two rotations of students that come to class on campus alternate weeks. You will be asked to attend remotely on the week that you have rotated out the classroom.

Compliance: All students returning to campus will be required, through a digital agreement, to commit to a set of [Health Commitments and Expectations](#) including face coverings, symptom attestation, testing, contact tracing, quarantine, and isolation. The agreement makes clear that compliance is a condition of being a member of our on-campus community.

You have a critical role to play in minimizing transmission of COVID-19 within the University community, so the University is requiring that you make your own health and safety commitments. Additionally, if you will be attending this class in person, you will be asked to show your [Healthway](#) badge on your mobile device to the instructor in the classroom prior to starting class, and wear your face mask over your mouth and nose at all times. If you do not comply with these rules you will be asked to leave the classroom. If you refuse to leave the class, the instructor will inform the class that they will not proceed with instruction until you leave the room. If you still refuse to leave the room, the instructor will dismiss the class and will contact the academic Dean's office for follow up.

Boston University is committed to offering the best learning environment for you, but to succeed, we need your help. We all must be responsible and respectful. If you do not want to

follow these guidelines, you must participate in class remotely, so that you do not put your classmates or others at undue risk. We are counting on all members of our community to be courteous and collegial, whether they are with classmates and colleagues on campus, in the classroom, or engaging with us remotely, as we work together this fall semester.

IMPORTANT NOTES

- **Assignments will not be accepted past their due date.**
- **Room Capacity: 11**
- Reading the relevant material in the textbook is essential for gaining a thorough understanding of the topics covered in the course.
- Not all of the material in each chapter will be covered during lecture/discussion, but the material should be read in any case.
- Your programs must be done in Java. All programming assignments must include the source code, pseudo code (program outline) including test plan, as well as the UML class diagrams. Programming assignments will not be accepted later than the end of the class the day it is due. Students will not receive credit for late homework.
- Be sure to get a copy of the **2020** Fall Schedule. It contains lots of useful data such as radio stations announcing class cancellations, important dates, etc.
- Inclement weather: BU will announce University closures via the BU website www.bu.edu. As a last resort for information, call the University operators at (617) 353-2000.

ACADEMIC HONESTY

The course is governed by the Academic Conduct Committee policies regarding plagiarism (any attempt to represent the work of another person as one's own). This includes copying (even with modifications) of a program or a segment of code. You can discuss general ideas with other people, but the work you submit must be your own. Collaboration is not permitted.

ELECTRONIC MAIL

To be sure you *can* communicate with the instructor electronically and to add your email to the class distribution list, please send a test message with the subject line *CS232 TEST* to the instructor's email address – include your name in the body of the message.