

Introduction to Java NYU CS9053

Section I

Spring 2024

Thursdays 6:30 PM – 9:00 PM

Location: 2 MetroTech Center Room 801

Instructor

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Office Hours

Tentatively, Monday 6pm at
<https://nyu.zoom.us/j/3882486878>

Course Overview

Java is among the most widely used languages for the programming of large scale software applications as well as on small devices such as cell phones. The objective of this course is to give students a thorough and practical understanding of Core Java concepts including features introduced in Java 8. Apart from teaching the general syntax, this course is geared towards enabling students to understand and implement object oriented programming concepts using Java programming language.

There are 12 units in the class with 2 additional units on other Java topics. I will take suggestions from other students about their interests and what other topics to cover.

Grade Breakdown:

Problem Sets: 40%

Midterm: 30%

Final Project: 30%

The Final Project will be a project of the student's choosing. They may work in groups of 2-3, but the project must be more substantial. A proposal will be required for the final project which will be reviewed by the teaching staff for approval.

Recommended Texts

There are various worthwhile texts I will be using as source material. The focus of this class will be Java 8. I recommend the following texts:

Introduction to Java, 12th Edition, Y. Daniel Young, Pearson

Core Java, Volume I, 11th Edition, Cay S. Horstmann, Pearson (this covers Java 9, 10, and 11, but this will be fine or you can use a previous edition)

Java SE8 for Programmers, 3rd Edition, Paul Deitel & Harvey Deitel, Deitel Developer Series

These aren't strictly necessary, as there is also plenty of material online you can study. However, I will be referring to specific chapters in these books.

In the syllabus, readings will refer to Horstmann unless otherwise specified.

Class Requirements

- Java Development Kit (Java 8.0 or Later)
- An IDE such as Eclipse (Preferred) or NetBeans, etc. or a suitable text editor

Course Schedule

Week	Subject	Reading
Jan. 25 th	History, Importance, Introduction, Basics, JVM, JRE	Chapter 1-2
Feb. 1 st	Procedural Programming, Data Types, Control Statements, Arrays	Chapter 3
Feb. 8 th	Strings, Objects, & Methods	Chapter 3.6 & 4
Feb. 15 th	Inheritance	Chapter 5
Feb. 22 nd	IO and Exceptions	Deitel & Deitel, Chapters 7.5, 11, & 15
Feb. 29 th	Abstracts, Interfaces, Generics, Functional Java, Lambdas	Chapter 6.1, Chapter 6.2, Chapter 8
Mar. 7 th	GUI/Event Handlings	Deitel & Deitel Chapter 12
Mar. 14 th	Collections	Chapter 9 & 5.2
Mar. 21 nd	SPRING BREAK. NO CLASS.	
Mar. 28 th	Concurrency / Multithreading	Chapter 14
Apr. 4 th	Networking	Horstmann Volume II, Chapter 4 Liang, Chapter 33
Apr. 11 th	Databases/JDBC	Deitel & Deitel, Chapter 21
Apr. 18 th	Java and Security	
Apr. 25 th	TBD	
May 2 nd	TBD	

Exam Schedule

Week	Subject
Feb. 29 th	Midterm, Due March 7 th

(Both sections will have the midterm released and due on the same day)

Homework Policy

Homeworks are due roughly 1 week after the assignments are released. If a homework is not turned in by the due date, it will receive 10% off for each day it is late. However, if you require an extension, please contact me or the TAs, and we can make special arrangements.

Final Project

There will be a final project assigned towards the end of the semester which will be due during finals week. The final project will be a project of the student's own proposed design. In previous semesters this has involved games, client/server applications, and web applications, among many others. There will be more details later in the semester, which will involve a proposal followed by your submitted implementation.

Academic Honesty

Academic honesty is a serious issue. Students are encouraged to collaborate with classmates to discuss how to solve problems and to look up and search online for solutions or means of implementation of code they're attempting to write. However, all students must write their OWN code, not use a classmate's code nor copy online code.

Instances of academic dishonesty (for example, plagiarism from classmates, previous years, or online sites) will result in a 0 for the assignment, exam, or project and a report to academic affairs.

The NYU Tandon School values an inclusive and equitable environment for all our students. I hope to foster a sense of community in this class and consider it a place where individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations, and abilities will be treated with respect. It is my intent that all students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. If this standard is not being upheld, please feel free to speak with me.