

COP 4259-001
Advanced Java Programming
T/R 1:15PM – 2:50PM
3 credits

Summer, 2022
Prof. Samira Zad, Ph.D.
Office: 514
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TA name	TBA
Office	TBA
Office hours	TBA
Telephone	TBA
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Course Description

This course is a Java programming class with an introduction to problem solving and programming. The course will cover introductory and advanced topics in Java, including but not limited to, flow of control, classes, methods, arrays, strings, inheritance, polymorphism, interfaces, algorithms, and data structures.

Instructional Method

In-Person w/ recorded lecture. There is no remote option for this course.

Prerequisites/Corequisites

Prerequisites:

- COP-Computer Programming 3530 Undergraduate / Graduate, Minimum Grade of C
- COP-Computer Programming 3410 Undergraduate / Graduate, Minimum Grade of C

Corequisite: None

Course Objectives/Student Learning Outcomes

<i>Course objectives</i>	The primary objective of this course is to provide an advanced understanding of Java programming. Including object-oriented concepts (inheritance, polymorphism, etc), and algorithms/data structures in Java.
<i>Student learning outcomes</i>	1. Proficiency in the areas of software design and development, data structures, and operating systems

<i>& relationship to ABET a-k objectives</i>	2. An ability to plan and execute engineering design to meet an identified need.
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Course Evaluation Method

Subject to changes:

Participation: Bonus up to 5%

Homework: 30%

Exams: 70%

Note: The minimum grade required to pass the course is C.

Course Grading Scale

Grading Scale:

90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79: "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."

Policy on Makeup Tests, Late Work, and Incompletes (if applicable)

All assignments are due at 11:59 pm on the due date. Late assignments will lose 10% of the total points for each day they are late and they will not be accepted after three days. However, appropriate accommodations will be made for students having a valid medical excuse. Unless there exists an evidence of medical or emergency situation, incomplete grades will not be given. Plagiarism will not be tolerated. Any copying and pasting without attribution and a reference will be considered plagiarism.

Special Course Requirements (if applicable)

N/A

Classroom Etiquette Policy (if applicable)

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

Policy on the Recording of Lectures (optional)

Because of a new Florida Statute in 2021, the following model language is suggested for inclusion in course syllabi, at the discretion of individual faculty:

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty

member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Attendance Policy

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Required Texts/Readings

Java: An Introduction to Problem Solving and Programming” by Walter Savitch, 6th edition, Prentice Hall.

Supplementary/Recommended Readings (if applicable)

TBD

Course Topical Outline

Subject to Changes:

Introduction to Computers and Java

Basic Computation

Flow of Control: Branching

Flow of Control: Loops

Defining Classes and Methods

More About Objects and Methods

Arrays and Strings

Inheritance, Polymorphism and Interfaces

Advanced Topics on Algorithms

Advanced Topics on Data Structures

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