



Computer Science Department
Course Syllabus
CS448 - Advanced Java Programming

Catalog Description: This course aims to expose students to the complexities involved in designing and building advanced java applications. This course aims to gain in-depth skills of programming with java. The main themes are: Advanced I/O - Object Serialization, Reflection, Networking with Sockets, Remote Method Invocation (RMI), Security services In Java (JAAS...), Java Naming and Directory Interface (JNDI), Parsing XML with Java – JAXP, Native Methods (JNI), Web programming Servlets and JSP, Advanced JDBC, Java String Matching, Java Swing.

Credit Hours: **3 Credit hours:** 3 Lectures per week 0 Labs. per week 0 Recitation per week

Prerequisites: CS330

Course Learning Outcomes:

1. To expose students to the complexities involved in designing and building advanced java applications.
2. To gain an in-depth skills of java programming in several programming areas.

Major Topics:

- Advanced I/O - Object Serialization
- Reflection
- Networking with Sockets
- Remote Method Invocation (RMI)
- Security services In Java (JAAS...)
- Java Naming and Directory Interface (JNDI)
- Parsing XML with Java – JAXP
- Native Methods (JNI)
- Web programming Servlets and JSP
- Advanced JDBC
- Java String Matching
- Java Swing

Text Books:

- Required: 1. Core Java™, Volume I: Fundamentals, Horstmann and Cornell, 8th edition, Prentice Hall PTR, 2007.
- Required: Core Java™, Volume II: Advanced Features, Horstmann and Cornell, 8th edition, Prentice Hall PTR, 2007.
- Optional: Java: How to Program, Deitel and Deitel, Prentice Hall, 2007.
- Optional: Java Programming Cookbook, Schildt, McGraw-Hill Osborne, 2007.
- Optional: Java RMI, Gross, O'Reilly, 2002.
- Optional: Java Network Programming, Rusty Harold, O'Reilly, 2004.
- Optional: Java Enterprise in a Nutshell, Farley, Crawford, Malani, Gethland, and Norman, O'Reilly, 2005



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Grading:

- ⦿ The grading scale for this course is:
 - . 95 - 100 A+ Passing
 - . 90 - 94 A Passing
 - . 85 - 89 B+ Passing
 - . 80 - 84 B Passing
 - . 75 - 79 C+ Passing
 - . 70 - 74 C Passing
 - . 65 - 69 D+ Passing
 - . 60 - 64 D Passing
 - . 0 - 59 F Failing

- ⦿ Final grades will be determined based on the following components:
 - . 60% Semester Work
 - . 40% Final Exam

- ⦿ Students may not do any additional work for extra credit nor resubmit any graded activity to raise a final grade.

- ⦿ Late submissions will not be accepted for any graded activity for any reason.

- ⦿ Students have one week to request the re-grading of any semester work.

Attendance Policy:

Students should attend 80% of the overall course hours taught in the semester as per the University regulations.

If a student fails to achieve this portion, he/she shall not be allowed to appear in the final exam and shall be awarded "DN" grade and repeat the course.

**Cheating and
Plagiarism
Policy:**

The instructor will use several manual and automated means to detect cheating and/or plagiarism in any work submitted by students for this course.

When a student is suspected of cheating or plagiarism, the instructor raises the issue to the disciplinary committee.



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Communications: Registered students will be given access to a section of the Blackboard Learning System for this course. Bb will be used as the primary mechanism to disseminate course information, including announcements, lecture slides, assignments, and grades.

Communication with the instructor on issues relating to the individual student should be conducted using CIS email, via telephone, or in person.