

SYLLABUS  
PART I  
EDISON STATE COMMUNITY COLLEGE  
CIS 221S JAVA PROGRAMMING I  
3 CREDIT HOURS

**COURSE DESCRIPTION**

Introduction to programming concepts using the Java programming language. Java fundamentals, decision structures, loops, methods, file handling, and arrays are included. Object-oriented programming concepts are explored. Also included is an introduction to the JavaFX GUI development platform. Prerequisite: ENG 092D and MTH 098D or equivalent, and CIS 110S. Lab fee.

**COURSE GOALS**

The student will:

Bloom's Level		Program Outcomes
2	1. Execute the software development process and use a top-down design approach when writing object-oriented programs.	3, 4, 5, 7
3	2. Use the features of object-oriented programming to develop Java programs using classes and objects, as well as additional features listed in the course topic outline.	3, 7
3	3. Use a team approach to solve an object-oriented programming problem.	3, 6, 7
3	4. Apply appropriate documentation techniques within programs.	7
4	5. Analyze program code and implement debugging and exception handling techniques.	3, 7
2	6. Discuss the importance of ethics in the computer industry and the role they play in the field of software development.	1

**CORE VALUES**

The Core Values are a set of principles that guide Edison State Community College in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

**TOPIC OUTLINE**

1. Introduction to Java
2. Java Fundamentals
3. Decision Structures
4. Loops and Files
5. Methods
6. Objects and Classes
7. Arrays and the ArrayList Class
8. Static Classes, Aggregation, and Enumerated Types
9. Text Processing and More about Wrapper Classes
10. Inheritance
11. Exceptions and Advanced File I/O
12. JavaFX: GUI Programming and Basic Controls