

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: PROG 407 Department: Information Technologies

Course Title: JAVA Programming Semester: Spring Year: 1999

Objectives/Competencies

Course Objective	Competencies
<p>1. To construct JAVA statements using correct syntax.</p> <p>2. To declare, define and use objects when writing JAVA code.</p>	<p>1. To effectively code applications using:</p> <ul style="list-style-type: none">a. Primitive data typeb. Variables and constantsc. Decision and iteration structuresd. Arrayse. Assignment, arithmetic, relational and logical operatorsf. The Cast operationg. Console and file and stream I/Oh. The String classi. The import statement <p>2. Design and implement methods using parameters and return values.</p> <ul style="list-style-type: none">1. Distinguish class variables and methods from instance variables and methods.2. Understand the difference between primitive and reference types.

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<p>3. To apply the concepts of Encapsulation, Inheritance, Polymorphism.</p> <p>4. To analyze an application and identify the circumstances where handling errors and validating data are needed.</p> <p>5. To apply JAVA to Web based applications.</p>	<p>3. Properly use the set, new, null, this, and super keywords.</p> <p>4. Control access to data and methods with the visibility modifiers: public, private, static.</p> <p>5. Pass objects appropriately as parameters to methods.</p> <p>1. Define the scope of variables.</p> <p>2. Design and implement classes.</p> <p>3. Define appropriate constructors, fields and methods.</p> <p>4. Organize a set of classes using inheritance.</p> <p>5. Distinguish abstract and concrete classes.</p> <p>6. Write polymorphic methods.</p> <p>1. Code data validation methods.</p> <p>2. Write code to handle exceptions.</p> <p>1. Write JAVA applets and include them in HTML documents.</p> <p>2. Use the AWT class.</p>