PELLISIPPI STATE COMMUNITY COLLEGE  
MASTER SYLLABUS  
ADVANCED JAVA PROGRAMMING  
CSIT 1520

Class Hours: 3.0  
Credit Hours: 4.0  
Laboratory Hours: 3.0  
Revised: Spring 2010

Catalog Course Description:
A study in Java language techniques beyond the introductory course. Emphasis will include object-oriented design, arrays, GUI and event-driven programming, exceptions, and Java packages for collections, file I/O and database connectivity.

Entry Level Standards:
The entering student should have familiarity with the Java programming language and a Java IDE. The student should be able to write Java classes and use them in applications.

Prerequisites:
CSIT 1510 or Java programming experience.

Corequisites:
CSIT 1810 or database experience.

Textbook(s) and Other Reference Materials:

*Comprehensive Version, Introduction to Java Programming, 7th ED.*, by Y. Daniel Liang, Pearson/Prentice Hall.

I. Week/Unit/Topic Basis:

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<th>Week</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>Competency Review of CSIT 1510</td>
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<td>2</td>
<td>Competency Review of CSIT 1510</td>
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<tr>
<td>3</td>
<td>Objects and Classes, Thinking in Objects</td>
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<td>4</td>
<td>Files and Strings</td>
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<td>5</td>
<td>Exception Handling</td>
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<td>6</td>
<td>Binary File I/O</td>
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<td>7</td>
<td>Inheritance and Polymorphism</td>
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II. Course Objectives*

A. Become familiar with the higher-level, object-oriented functionality of the Java programming language. IV,VI,VII,XI

B. Create fairly complex event-driven, GUI Java applications and applets. III,V,VI,XII

C. Reinforce good programming habits introduced in earlier course(s). II,III,VI,VIII

*Roman numerals after course objectives reference goals of the CSIT program.

III. Instructional Processes*

Students will:

1. Participate in a project development team. *(Communication, Transitional Strategy, Active Learning)*

2. Use professionally accepted methods and materials in completion of a final project. *(Technological Literacy, Transitional Strategy, Active Learning)*

3. Use a variety of techniques to present a group project. *(Communication, Transitional Strategy, Active Learning)*

4. Participate in a peer review of team projects. *(Communication, Transitional Strategy, Active Learning)*

*Strategies and outcomes listed after instructional processes reference TBR's goals for strengthening general education knowledge and skills, connecting course work to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*

Upon successful completion of this course, the student should be able to:

1. Use a Java IDE. B

2. Create and use Java packages with differing member access modifiers. A, B

3. Use Java collection, file I/O and database connectivity packages. A, B
4. Create and use interfaces and abstract, final and anonymous classes. A, B, C
5. Use Java GUI components and their events. A, B
6. Use the Java event delegation model. A, B
7. Use Java layout managers. A, B
8. Throw and catch exceptions. A, B
9. Use JDBC to connect to and query a database. A, B
10. Understand threads. A, B
11. Understand basic Java networking classes. A, B

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

A minimum of three major tests is recommended. Tests will cover material presented in class. Tests are not to be missed without a valid excuse. Tests makeup 40% of the grade.

B. Laboratory Expectations:

At least 4 lab assignments will be given and must be completed and handed in at the designated date and time. The final lab assignment will be a team project. The team will design and code a program and will present their program to the class. The subject of the project must be approved by the instructor. In the team project, individual work is strongly discouraged. Labs makeup 60% of the grade.

C. Field Work:

N/A

D. Other Evaluation Methods:

This information, if applicable, will be provided via a syllabus supplement.

E. Grading Scale:

93-100 A  
88-92 B+  
83-87 B  
78-82 C+  
73-77 C  
65-72 D  
Below 65 F

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75
percent of their scheduled class and laboratory meetings in order to receive credit for the course. [NOTE: No differentiation is noted for excused/unexcused absences. These will be treated as an absence.] (Pellissippi State Online Catalog)

B. Academic Dishonesty:

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (Pellissippi State Online Catalog)

C. Accommodations for disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins134 or 126 or by phone: 694-6751(Voice/TTY) or 539-7153. More information is available at www.pstcc.edu/departments/swd/

D. Other Policies:

Computer Usage Guidelines:
College-owned or -operated computing resources are provided for use by students of Pellissippi State. All students are responsible for the usage of Pellissippi State’s computing resources in an effective, efficient, ethical and lawful manner. (Pellissippi State Online Catalog)

Students are expected to promptly attend all lecture and lab classes as assigned. If a class is missed, student must make up all work and get notes and/or handouts.