

Pellissippi State Community College
Master Syllabus

ADVANCED JAVA PROGRAMMING
CSIT 1520

Class Hours: 3.0
Credit Hours: 4.0
Laboratory Hours: 3.0
Date Revised: January 3, 2012

Instructor:
Office:
Phone:
Email:

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 Course Materials:

Textbook: *Comprehensive Version, Introduction to Java Programming, 8th Ed.*, by Y. Daniel Liang, Pearson/Prentice Hall. ISBN-13: 978-0-13-213080-6

I. Week/Unit/Topic Basis:

Week Topic(s)

- | | |
|----|--|
| 1 | CSIT 1510 competency review |
| 2 | CSIT 1510 competency review |
| 3 | Chapter 9, Strings and Text I/O |
| 4 | Chapter 10, Thinking in Objects |
| 5 | Chapter 11, Inheritance and Polymorphism |
| 6 | Chapter 12, GUI Basics (including Frames, Layout Managers, Panels) |
| 7 | Chapter 15 (15.1 – 15.4) Graphics, Chapter 16 (16.1 – 16.7) Event-Driven Programming |
| 8 | Chapter 16 (16.1 – 16.7) Event-Driven Programming |
| 9 | Chapter 17 (17.1 – 17.9) Creating GUI Interfaces |
| 10 | Chapter 34 (34.1 – 34.3) Menus; Chapter 16 (16.10) Mouse Events |
| 11 | Chapter 18 (18.1 – 18.7) Applets and Multimedia |
| 12 | Chapter 13, Exceptions; Chapter 14 (14.1 – 14.5) Abstract Classes and Interfaces |
| 13 | Chapter 37 (37.1 – 37.7) Java Database Programming |
| 14 | Chapter 21 (21.1 – 21.4) Generics; Chapter 22 (22.1 – 22.3) Java Collections Framework |
| 15 | Final Exam Period |

II. Course Goals*:

The course will:

- A. Become familiar with the higher-level, object-oriented functionality of the Java programming language. II, III, V
- B. Create fairly complex event-driven, GUI Java applications and applets. II, III, IV, V
- C. Reinforce good programming habits introduced in earlier course(s). II, III, IV, V
- D. Use professionally accepted methods and materials in completion of projects. I, II, III, IV, V
- E. Require students to practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. I

*Roman numerals after course objectives reference goals of the CSIT program (Career Program Goals and General Education Goals are listed http://www.pstcc.edu/departments/curriculum_and_instruction/syllabi/)

III. Expected Student Learning Outcomes*:

Students will be able to:

- 1. Use a Java IDE. (B, C, D, E)
- 2. Create and use Java packages (A, B, C)
- 3. Create and use Java classes. (A, B, C)
- 4. Create and use interfaces and abstract, final and anonymous classes (A, B)
- 5. Use Java GUI components, their events and layout managers (A, B)
- 6. Throw and catch exceptions (A, B)
- 7. Use Java collection, file I/O and database connectivity packages (A, B)
- 8. Use JDBC to connect to and query a database (A, B)
- 9. Create and use Java applets and application (A, B, C, E)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

A. Testing Procedures: at least 40% of grade

At least two tests will be given. Failure to make a passing exam average will result in a grade of F for the course.

B. Laboratory Expectations: at least 40% of grade

At least 4 labs will be given. Failure to make a passing lab average will result in a grade of F for the course.

C. Field Work: None.

D. Other Evaluation Methods

As indicated in the instructor's syllabus supplement. The remaining 20% of the student grade at the discretion of the instructor.

E. Grading Scale:

A: 93 – 100; B+: 88 – 92; B: 83 – 87; C+: 78 – 82; C: 73 – 77; D: 65 – 72; F: below 65

V. Policies:

A. Attendance Policy: from the PSCC catalog

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of the Learning Division, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of the Learning Division.

Maintaining continuous attendance in your classes is very important. If you are considering dropping or withdrawing from a course, please check with the Financial Aid Office before doing so. Dropping or withdrawing from a class can adversely affect your financial aid and/or lottery eligibility.

B. Academic Dishonesty: from the PSCC catalog

The College policy that prohibits plagiarism, cheating and other forms of academic misconduct. A student guilty of academic misconduct, either directly or indirectly, through participation or assistance, may be assigned an F or a zero for the exercise or examination or an F in the course, at the discretion of the instructor.

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 Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

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.

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