PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS
MOBILE APPLICATION DEVELOPMENT
CSIT 2250

Class Hours: 2.0 Credit Hours: 3.0
Laboratory Hours: 2.0 Revised: Fall 2012

Catalog Course Description:
A study of mobile computing devices with emphasis on development of mobile applications using the Android platform. Topics include mobile computing hardware and technologies, Android development environment, Android application components, Android user interface design principles, and Android APIs.

Entry Level Standards:
Students should have familiarity with the Windows and Linux/Unix operating systems and an integrated program development environment such as NetBeans or Eclipse. In addition, students are expected to have knowledge of Java programming fundamentals and graphical user interface design concepts.

Prerequisites:
CSIT 1520

Textbook(s) and Other Course Materials:

Required:

Optional:

I. Week/Unit/Topic Basis:

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to mobile technologies and devices</td>
</tr>
<tr>
<td>2</td>
<td>Android platform and applications overview</td>
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<tr>
<td>3</td>
<td>Setting Android development environment</td>
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<tr>
<td>4</td>
<td>Writing Android applications</td>
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Understanding anatomy of an Android application
Managing application resources
Essentials of Android user interface design
User interface design elements, events, and dialogs
User interface design layouts
Working with texts and shapes
Working with animations
Using Android location based APIs
Using Android storage APIs
Using Android web APIs

**Final Exam Period**

**II. Course Goals**:  

The course will

A. Enhance student’s understanding of mobile computing technologies and devices. (II, III, IV)
B. Guide students to create mobile applications using the Android platform. (I, II, IV, V)
C. Expand student understanding of advanced Java programming concepts and integrated software development environments. (III, IV, V)
D. Guide students to understand and use Android APIs. (IV, V)
E. Enhance effective use of object-oriented programming concepts and software development principles. (III, IV, V)
F. Guide students to understand GUI design principles for mobile applications. (I, II, IV, V)

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

**III. Expected Student Learning Outcomes**:  

Students will be able to:

1. Explain enterprise Java platform architecture and its components. (A, B)
2. Write Java programs that meet internationalization requirements. (C, E)
3. Use Java Beans and Bean events. (A, B, C, E)
4. Explain Swing models and identify advanced GUI components such as internal frames, toolbars, menus and layout managers. (A, C)
5. Write Java programs using JTable and JTree Swing components to display data in grid and hierarchical formats. (A, C)
6. Explain database connectivity methods and write Java programs to interface with major databases. (B, C, E)

7. Write modular programs and Java applications using Java Servlets and Java Server Pages (JSP). (A, B, C, D, E)

8. Generate project documents such as requirement specifications document, design document and test document. (C, D, E)

9. Use NetBeans IDE to configure web servers, databases and other server-side computing resources. (B, E)

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

IV. Evaluation:

A. Testing Procedures: 40% of grade

   At least two tests are recommended for the course. There will be no make-up tests unless prior arrangements have been made with the instructor. Failure to make a passing test average may result in a grade of F for the course.

B. Laboratory Expectations: 50% of grade

   At least 4 lab assignments are recommended for the course. In addition, team project(s) may be assigned. A late penalty will be imposed on any overdue assignment. Failure to make a passing average in lab assignments and team project(s) may result in a grade of F for the course.

C. Field Work:

   N/A

D. Other Evaluation Methods: 10% of grade

   Homework assignments and/or quizzes

E. Grading Scale:

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

V. Policies:

A. Attendance Policy:

   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 Academic Affairs, 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 Academic Affairs.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:
• Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
• Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
• Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one’s own work.
• Taking an exam for another student.
• Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
• Any of the above occurring within the Web or distance learning environment.

Please see the Pellissippi State Policies and Procedures Manual, Policy 04:02:00 Academic/Classroom Conduct and Disciplinary Sanctions for the complete policy.

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 http://www.pstcc.edu/sswd/.

D. Other Policies:

**Computer Usage Guidelines:**
College-owned or -operated computing resources are provided for use students of Pellissippi State Community College. All students are responsible for the use of Pellissippi State's computing resources in an effective, efficient, ethical and lawful manner.