CS 3270 Mobile Development for Android  
Syllabus  

General Information  

Semester: Fall 2016  


Location: SLCC BB 215  

Instructor Info: Ted Cowan  

tecowan@weber.edu  

(801) 957-4769 (office @SLCC Redwood)  

Office hours @SLCC Redwood, Technology Building, First Floor, Room 133. Mondays, Wednesdays and Thursdays: 1pm-4pm by appointment only. Schedule an appointment at https://webercsatslcc.youcanbook.me.  

Website: https://weber.instructure.com/courses/420025  

Objectives of This Course  

From the catalog: Introduction to developing applications for Android mobile devices. Students will use the Eclipse Android Studio IDE in conjunction with the Android SDK. Students will gain advanced experience in Java and XML as they develop mobile applications both individually and as members of a development team. Prerequisite: CS 2350, CS 2550 and CS 3230.  

After successfully completing this course, students will be able to:  

1. Download, install and configure the Android Studio development tools.  

2. Use the Android Studio development tools to edit, compile and debug a complete Android application.  

3. Write and test object-oriented Android applications in Java.  

4. Store and update source code in a versioning system such as Git.  

5. Write working applications for the Android platform, including smartphones and tablets.  

6. Search, retrieve and apply information from Google’s reference documentation.  

7. Describe the process of publishing an Android application.  

8. Diagnose and correct compiler errors, program crashes and run-time exceptions.  

9. Design an Android program, which conforms to acceptable Google user interface guidelines.  

10. Understand what is expected of the student during this class.  

Please note that students will not be required to work in groups this semester. All assessments and lab assignments are to be completed individually. There is a possibility for students to collaborate on their final project as a group, but the grading criteria will be significantly higher.
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Students should have regular access to the recommended hardware as documented at https://developer.android.com/studio/index.html to successfully complete the learning objectives of this course. A supported Android device is not required but is recommended.

Students with Disabilities

Students who have special needs or disabilities that may affect their ability to access information and/or material presented in this course are encouraged to access http://www.weber.edu/ssd/ssdPP00_registering.html to register with the WSU SSD.

Allotted Time

You should anticipate spending three to four hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.

Grading

Your final grade will be determined from your performance in the following areas:

- Lab assignments 35%
- In-Class activities 5%
- Midterm 25%
- Final Project 35%

Class Format

A reading assignment will be posted in each learning module. Each student is expected to read the assigned reading material prior to completing the associated lab work and participating in any associated in-class activities. Questions about the lab, reading material or other learning resources may be asked in class.

Honesty

CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct. Cheating is defined in the Weber State University Policies and Procedures Manual located at http://www.weber.edu/ppm/Policies/6-22_StudentCode.html.

Anyone determined to have copied another student's assignment, quiz or exam will receive a failing grade for the semester. Please do your own work. You may study together but lab assignments, quizzes and tests are to be completed individually and not as a group. Please do not distribute or post solutions to lab assignments or the content of any quiz or test on the Internet.
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Homework

Please complete the readings assignment prior to class. A schedule of reading and lab assignments can be found below.

Course Fees

Course fees for the Computer Science major are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.

Assignments

Lab assignments will be given during the semester. The lab assignments are typically short and are directly relevant to the associated reading assignment. Submit your lab assignments as directed by each lab assignment. In some cases, you will simply demo the app for the instructor. In others, you will submit an archive of your project or a screenshot of your app to Canvas.

You must always turn in your lab assignments by marking the assignment complete in Canvas. Do not upload any files to Canvas unless instructed to do so in the assignment.

I will grade your lab according to the rubric listed in the lab assignment. If your app runs without errors, substantially complies with requirements and produces the proper output, you will receive full credit for the assignment. If significant features are missing, it does not compile cleanly or bugs are found, you will receive a lower score based on the severity of the error. Naming of files can be critical to grading so please name your app, folders and files exactly as specified in the lab description. See each lab assignment for more information.

Lab assignments are due on the date listed in Canvas. Please refer to the Learning Modules, the Syllabus or the Calendar in Canvas for actual lab assignment due dates rather than the dates below.

The dates, assignments, grading and deliverables in this syllabus are guidelines only and are subject to change in the sole discretion of the instructor to meet the needs of the class.

Midterm

A midterm will be administered near the middle of the semester. Instead of questions and answers, this midterm is an in-class, closed-book programming project in which you are required to create a small, simple but fully functional Android application. No other notes or documentation but Android Studio will be used to write this application. A practice project very similar to the midterm project will be provided in advance and discussed in class so you may practice and prepare.

Final Project
There will be a Final Project in place of a final exam and ample time will be given in order to complete the project. The Final Project is an individual assignment of your own design and creation. In summary your final project will demonstrate your ability to create a complete, working and useful Android application. Several weeks will be dedicated at the end of the semester for final project work. Details on the Final project should be available in or near Week 6.

Grading Scale

The grading scale for the final grade is as follows:

- 100-94% = A
- 93.9-90% = A-
- 92.9-87% = B+
- 86.9-84% = B
- 83.9-80% = B-
- 79.9-77% = C+
- 76.9-74% = C
- 69.9-67% = D+
- 66.9-64% = D
- 63.9-60% = D
- below 60% = E

Campus Closures and Class Cancelations

If class is canceled due to weather or illness of the instructor, an email will be sent to your Weber State email address, a note will be place on the door of the room and an announcement will published on Canvas. Class will only be canceled for weather if SLCC closes the Redwood Road campus. If the SLCC campus is closed for an extended period, classwork will continue through the use of WSU email, Canvas, recorded videos and virtual meeting tools.

Miscellaneous

The instructor reserves the right to amend the course schedule, or study material, change grading percentages or weighting, or to add or subtract lab assignments, quizzes or examinations to best meet the needs of the class.

Your instructor maintains office hours at his office at the SLCC Redwood Road campus during the semester. See the Instructor Info section at the top of this syllabus for directions and instructions.

No extra credit will be offered for this class.

Quizzes and Lab assignments may not be turned in late for credit.

A grade of Incomplete will be given only in extreme circumstances.
## CS 3270 Mobile Development for Android
### Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 29</td>
<td>Introductions and Syllabus Review&lt;br&gt;Student and Hardware inventory&lt;br&gt;Module 1:&lt;br&gt;Reading: Deitel Chapter 1&lt;br&gt;Install Software</td>
<td>Lab 0 – Hello World</td>
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<tr>
<td>2</td>
<td>Sep 5</td>
<td>Module 2:&lt;br&gt;Reading: Deitel Chapter 2&lt;br&gt;GUI Design, Layouts, Accessibility, I18N</td>
<td>Lab 2 – Modify Tip Calculator</td>
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<tr>
<td>3</td>
<td>Sep 12</td>
<td>Module 3:&lt;br&gt;Reading: Deitel Chapter 3&lt;br&gt;GridLayout, EditText, SeekBar, Events, NumberFormat</td>
<td>Lab 3 – Android Logos</td>
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<tr>
<td>4</td>
<td>Sep 19</td>
<td>Module 4:&lt;br&gt;Reading: Deitel Chapter 4&lt;br&gt;Fragments, Menus, Preferences, Intents, Animator, Toasts</td>
<td>Lab 4 – Capital Cities</td>
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<tr>
<td>5</td>
<td>Sep 26</td>
<td>Module 5:&lt;br&gt;Reading: Deitel Chapters 5 and 6&lt;br&gt;2D Graphics Canvas, Bitmap, MultiTouch Events, Animation, Threading</td>
<td>Lab 5 – Baseball Lineup</td>
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<tr>
<td>6</td>
<td>Oct 3</td>
<td>Module 6:&lt;br&gt;Reading: Deitel Chapters 7 and 8&lt;br&gt;REST services, HTTPUrlConnection, JSON, Recycler</td>
<td>Lab 6 – CS Course Catalog</td>
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<td>7</td>
<td>Oct 10</td>
<td>Module 7:&lt;br&gt;Reading: Deitel Chapter 9&lt;br&gt;FragmentTransactions and Back Stack, SQLite</td>
<td>Lab 7 – To Do List</td>
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<td>8</td>
<td>Oct 17</td>
<td>Midterm</td>
<td>Midterm</td>
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<td>9</td>
<td>Oct 24</td>
<td>Final Project and Special Topics</td>
<td>Final Project</td>
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<td>10</td>
<td>Oct 31</td>
<td>Final Project and Special Topics</td>
<td>Final Project</td>
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<td>11</td>
<td>Nov 7</td>
<td>Final Project and Special Topics</td>
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<td>12</td>
<td>Nov 14</td>
<td>Final Project and Special Topics</td>
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<td>13</td>
<td>Nov 21</td>
<td>Final Project and Special Topics</td>
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<td>14</td>
<td>Nov 28</td>
<td>Final Project</td>
<td>Final Project</td>
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<tr>
<td>15</td>
<td>Dec 5</td>
<td>Final Project Demos</td>
<td>Final Project</td>
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