CS 3372: Handheld Game Development
Fall 2017
Course syllabus

Class meetings
section 010: TR 9:30–10:45 in MCS 105
section 020: TR 11:00–12:15 in MCS 105

Instructor
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office location: MCS 205I
office hours: MTWRF 2:00–4:00 and by appointment

Textbooks


Description
Computer game development for Android handheld computing devices. Programming topics include graphics, audio, user interfaces and development tools. Other topics may include content creation, developer workflow, hardware acceleration, and power management.

Prerequisites
CS 2315 (Data Structures and Algorithms) is a prerequisite for this course. Please see me if you haven’t taken CS 2315 or if you’re unsure about your programming proficiency. Prior Java experience in particular is highly recommended (though CS 1351 is not a listed prerequisite).

Grading breakdown
70% assignments/quizzes/homework
30% projects/exams

Student learning outcomes
After successful completion of this course, students will
• identify, install, and evaluate development software for a handheld computing device.
• create application software for a handheld computing device using a high level programming language.
• create multimedia content suitable for use in an application program for a handheld computing device.
• author an application program for a handheld computing device that demonstrates 2D and/or 3D graphics.
• author an application program for a handheld computing device that demonstrates audio.
• author an application program for a handheld computing device that demonstrates interactive user input.
• author an application program for a handheld computing device that launches other application programs.
• explain techniques for applications created for handheld computing devices to reduce their power usage.
Class format

This class meets in a computer lab, and most class sessions will feel like a cross between a regular lecture class and a lab session; I call this approach a “studio” format. Some studio sessions will be basically a guided lab exercise, a way to learn by doing, and some will be a short lecture followed by class time to work on the relevant assignment; some will require considerably more creativity than others. I hope that, by combining lecture and homework in this way, classes will be more interesting and effective. You will be given access to MCS 105 so that you can also work on the assignments outside of class; you must use this access responsibly.

Discussion and giving and receiving help are generally encouraged during studio sessions. You must list everyone you worked with in any way on each assignment. Failure to do so is considered taking credit for work not done and thus cheating.

Participation is especially important for this class, which makes attendance important. You have a duty to inform me as soon as you know that you’ll have to miss a class. Missing class can hurt your grade both directly and indirectly.

Instead of exams during the semester and a comprehensive final exam, I am planning a midterm project and a larger final project. If we have a final project, I will suggest ideas for projects and approve project proposals sometime in the second half of the semester. Project demos/presentations will be scheduled for the last regular week of classes.

Blackboard (http://blackboard.angelo.edu/) will be used to keep track of grades and assignments.

Semester schedule

<table>
<thead>
<tr>
<th>week of</th>
<th>topic</th>
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<tbody>
<tr>
<td>August 29th</td>
<td>intro to Android</td>
</tr>
<tr>
<td>September 5th</td>
<td>Java intro/review</td>
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<tr>
<td>September 12th</td>
<td>Java intro/review</td>
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<tr>
<td>September 19th</td>
<td>Android programming basics</td>
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<tr>
<td>September 26th</td>
<td>Android programming basics</td>
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<tr>
<td>October 3rd</td>
<td>event-driven programming</td>
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<tr>
<td>October 10th</td>
<td>event-driven programming</td>
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<tr>
<td>October 17th</td>
<td>2D graphics in Android</td>
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<tr>
<td>October 24th</td>
<td>2D graphics in Android</td>
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<tr>
<td>October 31st</td>
<td>game framework in Android</td>
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<tr>
<td>November 7th</td>
<td>game framework in Android</td>
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<tr>
<td>November 14th</td>
<td>game framework in Android</td>
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<tr>
<td>November 21st</td>
<td>audio and graphic creation</td>
</tr>
<tr>
<td>November 28th</td>
<td>audio in Android</td>
</tr>
<tr>
<td>December 5th</td>
<td>publishing Android apps</td>
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Final exam

The final exam for this course is scheduled for Thursday, December 14th, 8:00–10:00 (section 010) and Tuesday, December 12th, 10:30–12:30 (section 020). If we have a final project rather than a final exam, I plan to use this time to view late demos of final projects.

Academic honesty

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. By remaining enrolled in this course you agree to adhere to the Academic Honor Code. It and the Student Handbook are easily found on the ASU website.

Accommodations

Persons with disabilities which may warrant academic accommodations must contact Student Services in order to request and to implement academic accommodations. For ASU’s policy on absences due to religious holy days, please see OP 10.19 at http://www.angelo.edu/opmanual/.