

Syllabus

Course Number: CS 338

Course Title: Mobile and Enterprise Computing

Course Description

Introduces platform-based software development for tablets, smart phones, and servers. Students learn to solve contemporary software engineering problems by creating Graphical User Interface apps that communicate over a network with an Enterprise Server and Database.

Prerequisite Courses

CS310 – Data Structures
or
CS362 – Data Structures

Course Overview

This course provides a comprehensive examination and investigation of mobile application design using android. In this course students will gain expertise in the use of an integrated development environment to build and deploy android applications. Students will also make design recommendations about what constitutes reusable and sustainable mobile design patterns. This includes determining and utilizing relevant architecture and design patterns to create mobile applications that promote configurability, extensibility, new functionality, and application persistence.

Course Outcomes

Upon completion of this course, students should be able to:

1. Demonstrate expertise with the Android development environment used to improve design, configurability, and functionality of Android applications.
2. Review, identify and apply principles of software design and configure your development, and troubleshoot where necessary
3. Analyze the Android Architecture and application hierarchy as it relates to the activity lifecycle.

4. Demonstrate mastery of Android Architecture and application hierarchy as it relates to the activity lifecycle.
5. Demonstrate familiarity with essential User Interface elements (i.e., controls) through effective interaction design for mobile solutions.
6. Understand data storage in Android applications and appropriately implement data storage solutions for mobile applications
7. Utilize intents and filters for messaging and communication between objects in android applications.
8. Utilize styles and themes to appropriately specify and control interface elements in Android applications.
9. Understand how to use the Telephony class for phone operations like SMS and MMS messaging.

Course Materials:

Required Text:

Kurniawan, B. (2015). Android Application Development: A Beginner's Tutorial: Brainy Software Inc.

Recommended Text:

Friesen, J. (2013). Learn Java for Android Development, Second Edition: Apress.

Technology Tools:

1. A PC-compatible computer system running a version of the Windows operating system with administrator rights to install new software.
2. Latest Version of Android Studio (download instructions in course).

As with most of Regis learning activities, using various software applications to accomplish assignments requires students to exercise a great deal of responsibility for learning how to successfully operate the software applications.

Pre-Assignment:

Complete the following tasks:

- Students will read the first week's assigned reading in the textbooks (listed in the Course Assignments grid on the next page) before the day of class.
- Be prepared to ask questions on unclear areas and to respond to questions about information in the assigned reading.

Online Format: Sign on to WorldClass and become familiar with the course navigation of the Web Curriculum.

Course Assignments and Activities:

Wk	Topics	Textbook Readings* (K in Kurniawan text, F optional in Friesen text)	Activities Assignments and Associated Points*
1	1: Getting Started with Android Application Development	K: Introduction and Chapter 1 – Getting Started <i>Optional</i> F: Chapter 2 – Learning Language Fundamentals	Participation in Discussions (10% for entire course) Assignment 1 (FirstApp) – 5%
2	2: Android Architecture	K: Chapter 2 – Building your First Android Application <i>Optional</i> F: Chapter 3 – Discovering Classes and Objects	Participation in Discussions Assignment 2 (Activities) – 5% Application Proposal – 5%
3	3: User Interface - Basic Controls	K: Chapter 3 – User Interface Components Chapter 4 – Layouts Chapter 11 – Bitmap Processing Chapter 14 – Multi-pane Layout	Participation in Discussions Assignment 3 (LayoutDemo) – 5%
4	4: User Interface - Menus & Action Bar	K: Chapter 6 – The Action Bar Chapter 7 – Menus Chapter	Participation in Discussions Assignment 4 (ActionBarDemo) – 5% Midterm Exam – 10%
5	5: Android Storage and Databases	K: Chapter 17 – Working with Files Chapter 18 – Working with the Database	Participation in Discussions Assignment 5 (Database) – 5% Application Prototype – 5%
6	6: Intents and Filters	K: Chapter 5 – Listeners Chapter 13 – Fragments Chapter 22 – Handlers	Participation in Discussions Assignment 6 (Intents & Filters) – 5%
7	7: Styles, Themes, Multimedia, Animations	K: Chapter 10 – Styles and Themes Chapter 15 – Animation	Participation in Discussions Assignment 7 (Styles and Themes) – 5%
8	8: Telephony, Bluetooth, WiFi and Services	K: Chapter 24 – Services	Participation in Discussions Assignment 8 (Services) – 5% Finished Application – 20% Final Exam – 10%
Total			100%

***Note to Classroom sections only:** Exact dates for reading assignments and programming assignments may differ from the above grid. The faculty syllabus, handed out the first night of class, will indicate any changes.

Summary of Assignments and Percentage Weight towards course grade

Assignment	Value (percent of overall course grade)
Programming Assignments (8 assignments at approximately 5% each) Total for Programming Assignments	40%
Android App Proposal	5%
Android App Prototype	5%
Android App Final Version	20%
Midterm Exam	10 %
Final Exam	10 %
Forum Participation	10 %
Course Total	100 %

Programming Assignments

Each programming assignment will involve writing programs that implement the concepts discussed in the book and class.

Late Assignment Policy for Programming Assignments

Late programming assignments will be graded and then 2% will be deducted for each day the assignment is late, **up to 5 days late**. **No programming assignment will be accepted more than 5 days after the official due date**. Therefore, any programming assignment turned in **more than 5 days late** will be given a grade of **zero**, and no feedback will be given.

Exams

There will be a midterm exam and a final exam. Exam questions will be cumulative, taken from reading assignments and course content. **Exams will not be accepted late.**

Participation

Class participation/effort is important because we can all learn from each other. Your participation points can make a difference in the final grade. Participation means:

1. a. Present in class every session (classroom)
b. Present in the forum every week (online)
2. a. Effectively responds to questions from the facilitator (classroom)
b. Regularly checks forum and posts all required items by the deadlines (online)
3. Interacts/replies to other students in classroom/forum discussions.

Course Policies and Procedures

Adding this course during the Drop/Add Period

If you added this course during the drop/add period, after class began on Monday, you are responsible for **immediately** notifying the instructor that you joined the course late. None of the course due dates will be extended for you. Even if a due date already passed when you added the course, late points will still be deducted.

Repeating the course

If you are repeating this course (due to a previous withdraw or low grade), you are responsible for **immediately** notifying the instructor. Course assignments that you submitted when you last took the course cannot be repeated -- you may be required to complete alternate assignments.

Plagiarism

Plagiarism includes submitting code or anything else that was obtained from any other person, publication, or any internet web source. **All work submitted in CS338 must be your own.**

In cases of suspected cheating or plagiarism, the instructor will discuss the matter with the student(s) involved. The instructor reserves the right to question any student orally or in writing about any assignment, and to use the evaluation of the student's understanding of the assignment and of the submitted solution as evidence of cheating. All cheating incidents will be reported to the Computer Science department, and may also be reported to the Academic Integrity Board for further action.

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A-	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B-	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C-	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D-	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx>.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx> or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](http://www.ed.gov).
- The HIPAA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: <http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx>.
- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: <http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx>.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University.

A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: <https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx>.