

Saint Leo University
Donald R. Tapia College of Business

COM 437: Mobile Application Development

Course Number: **COM 437** (three credits)
Prerequisite: COM 209 or an equivalent programming language;

I. REQUIRED TEXT:

Course Title: Android: Beginning Android Programming with Android Studio ISBN: 978-1-64459-135-2

You can purchase direct here:

https://www.ucertify.com/cart/?order=01axh&ref=&add_order=1

This is a uCertity book and access. This book comes with a Lab access you will need to complete your work for the term.

II. COURSE DESCRIPTION:

This course provides the basics necessary to understand, design and develop Android mobile applications with real world examples. Students will learn structure, services, and activities of Android applications by using with the Android Software Development Kit (SDK), the Java programming language and Android Studio Integrated Development Environment (IDE) on a Windows or Mac computer.

III. LEARNING OUTCOMES:

Students will be able to:

1. Explain basics of the Android OS and Android platform and the current market for Android apps.
2. Apply standard graphical user interface (GUI) design principles to develop user interfaces for Android mobile applications.
3. Design and create an Android app that requests data, stores it, and then modifies that data to produce a result throughout multiple activities.
4. Design, create, and publish an Android app in the Google Play Store.
5. **VALUES OUTCOME:** Demonstrate the core value of Personal Development by displaying critical thinking and good communication skills.

IV. METHOD OF ASSESSMENT

- A: Homework Assignments (40%)
- B: Project (30%)
- C: Quiz (20%)
- D: Discussions (10%)

A. Homework Assignments:

Homework assignments will consist of selected exercises and cases problems drawn from each

chapter on the course textbook. The course instructor will select the chapter exercises assigned for each homework and this will be communicated to the students. Some of the assigned exercises on the homework may require students to write and/or test computer programs using the Java programming language.

B. Project:

Students will be required to design and develop an Android mobile application. The topic of the Android mobile application will be selected by the student and approved by the instructor. In addition, students will be required to give a professional demonstration of their mobile application using real mobile device at the end of semester.

C. Exams:

At least two exams will be given in this course to assess student understanding of the material. The exams may consist of multiple-choice questions, short answer problems, or programming questions. Exams will focus on material covered in the class. Throughout the term/semester, quizzes may be given at the discretion of the instructor to test student understanding of the material.

D. Discussions:

Students will engage in weekly discussions on topics related to topics on mobile application development for Android. Students may be provided assigned reading, asked to research an assigned topic. Each student will be required to post a discussion question and respond to two others posted by other students in the class.

SCHEDULE:

UNIT	CONTENT	Assessments
One	Chapter 1. Meet the Android Chapter 2. The Android User Interface - Assigned Reading: Chapters 1 and 2 from textbook	Assessment: <ul style="list-style-type: none">• Discussion, Homework• Quiz
Two	Chapter 3. Android Activities, Fragments, and Intents - Assigned Reading: Chapters 3 from textbook	Assessment: <ul style="list-style-type: none">• Discussion, Homework• Project Assigned• Quiz
Three	Chapter 4. User Interface Chapter 5. Designing UI with Views - Assigned Reading: Chapters 4 and 5 from textbook	Assessment: <ul style="list-style-type: none">• Discussion, Homework• Quiz
Four	Chapter 6. Displaying Pictures with Views - Assigned Reading: Chapter 6 from textbook	Assessment: <ul style="list-style-type: none">• Discussion, Homework• Quiz

Five	Chapter 7. Data Persistence Chapter 8. Messaging and Content Providers <ul style="list-style-type: none"> - Assigned Reading: Chapters 7 and 8 from textbook 	Assessment: <ul style="list-style-type: none"> • Discussion, Homework • Quiz • Project Outline Due
Six	Chapter 9. Navigating with a Master/Detail Flow Activity on a Tablet <ul style="list-style-type: none"> - Assigned Reading: Chapter 9 from textbook 	Assessment: <ul style="list-style-type: none"> • Discussion, Homework • Quiz
Seven	Chapter 10. Location-Based Services Chapter 11. Networking <ul style="list-style-type: none"> - Assigned Reading: Chapters 10 and 11 from textbook 	Assessment: <ul style="list-style-type: none"> • Discussion, Homework • Quiz
Eight	Chapter 12. Developing Android Services <ul style="list-style-type: none"> - Assigned Reading: Chapters 12 from textbook - Presentation mobile Apps. 	Assessment: <ul style="list-style-type: none"> • Discussion, Homework • Quiz • Project Due