

 <b>Lebanese American University</b>	<b>COE</b>	<b>593</b>
School of Engineering	COE Application (required)	3 credits
<b>Department of Electrical and Computer Engineering</b>	TTh 12:30 PM – 1:45 PM	ENG 402
Course syllabus	Dr. Wissam F. Fawaz	Fall 2018

### 1. Course Description and Course Prerequisite

This course allows COE/ELE graduates to acquire the technical skills that are required to match a specific industry-related need. In particular, it exposes students to the techniques, which can improve their chances of gaining employment in jobs aligned with the considered need. This exposure is reinforced by an extensive hands-on experience that is brought into classroom through small-scale projects pertaining to problems inspired from the identified need. This year, the COE application course will dig into mobile device programming. More specifically, the main emphasis will be placed on the development of mobile applications targeting the Android mobile platform.

Course prerequisites: Fourth Year standing

### 2. Course Objectives

At the conclusion of the course, students will be able to:

- Understand the structure of an Android application.
- Develop applications catering for real-life needs.
- Gain a breadth of knowledge for developing applications with Android SDK
- Build applications for Android phones using the Java programming language.
- Deploy applications to the Android Market.

### 3. Contribution of course to meeting the professional component

Professional Component	Credits
Mathematics and Basic Sciences	0
Engineering Topic	3
General Education	0

### 4. Relationship of course to student outcomes

**SO (a)** *an ability to apply knowledge of mathematics, science and engineering*

- Engineering/(Engineering Programming)

**SO (k)** *an ability to use the techniques, skills and modern engineering tools necessary for engineering practice*

- Uses computer programs necessary for engineering practice

### 5. Course Outline

- File Management
- Event-driven Programming
- Android User Controls
- Activities and Intents
- Data Persistence
- Location-based Services
- Networking

### 6. Required tools / software / skills

Java Development Kit (JDK), Eclipse and Android Studio.

### 7. Textbook[s]

*Android How to Program with an Introduction to Java*, by Paul and Harvey Deitel, 3<sup>rd</sup> edition, Pearson, 2016.

### 8. Additional References

Wei-Meng Lee, *Beginning Android 4 Application Development*, John Wiley & Sons, 2012.  
 Reto Meier, *Professional Android 4 Application Development*, John Wiley & Sons, 2012.

**9. Schedule of Exams & Grading Percentage**

Quizzes/projects:	25%
Midterm Exam:	35%
Final:	40%

**10. Course Policies**

Cheating is considered to be a very serious breach of the cheating policy of the faculty and will not be tolerated. Students are expected to submit their own solutions to all programming projects. Solutions must be handed in at the beginning of the class in which they are due. Late submissions will not be accepted.

**11. General Comments**

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Office: 103, Bassil Bldg, ext: 2414  
Office Hours: TTh from 08:00 am – 09:30 am & 11:00 am – 12:30 pm  
and W from 10:00 am – 1:00 pm  
Course webpage: [http://www.wissamfawaz.com/coe\\_application.htm](http://www.wissamfawaz.com/coe_application.htm)

**12. General Rules & Regulations**

- A student can miss no more than the equivalent of 2 weeks of instruction. Students who exceed the allowed number of absences must withdraw from the course; otherwise, the course grade will be recorded as "F".
- Plagiarism: students caught cheating on an exam receive a grade of Zero on the exam in the first cheating attempt and a warning. Students caught cheating for the second time in the same course receive an F grade in the course and a second warning. A grade of zero on an exam resulting from cheating must be counted in the student's course grade. The zero cannot be dropped in computing the final grade in case the instructor has a policy of allowing students to drop their worst exam grade.
- Any student who receives 3 warnings will be suspended.

**13. Person(s) who prepared this description and date of preparation**

Dr. Wissam Fawaz prepared this syllabus in August 2018.