

GENERAL INFORMATION	
Course Prefix/Number: COP2662	Course Title: Android Application Development 2
Number of Credits: 4 credits	
Degree Type	<input type="checkbox"/> B.A. <input type="checkbox"/> B.S. <input type="checkbox"/> B.A.S. <input checked="" type="checkbox"/> A.A. <input type="checkbox"/> A.S. <input type="checkbox"/> A.A.S. <input type="checkbox"/> C.C.C. <input type="checkbox"/> A.T.C. <input type="checkbox"/> V.C.C.
Date Submitted/Revised: 4/12/12	Effective Year/Term: 2012-1
<input checked="" type="checkbox"/> New Course Competency <input type="checkbox"/> Revised Course Competency	
Course Description (limit to 50 words or less): This course for majors in Computer Science, Computer Information Systems, and related disciplines teaches how to develop advanced Android applications. Students will learn how to create applications utilizing the advanced capabilities of Android smartphones, including interfacing the application to the device's content providers' databases, GPS and location based services, notifications, background threads, audio, video, SMS, motion sensors and network connectivity. Special fee. (3 hr. lecture; 2 hr. lab)	
Prerequisite(s):	Corequisite(s):

Competencies:
Competency 1:

The student will demonstrate how to use the local media content provider by:

1. Creating, modifying or editing existing event information within the Android Calendar.
2. Creating, modifying or editing existing contact information within the Android Contacts.

Competency 2:

The student will demonstrate understanding of GPS and location based services by:

1. Accessing the audio and video media lists within the Android Media Store.
2. Utilizing the appropriate location provider to find the physical location of the device.
3. Creating map-based activities to show the current location of the device.

Competency 3:

The student will demonstrate how to utilize notifications by:

1. Creating a notification and configuring the status bar icon.
2. Triggering notifications and utilizing the devices audio, LEDs and vibrating motor to notify the user.

Competency 4:

The student will demonstrate how to use background threads by:

1. Creating and controlling background services.
2. Registering a background service in the manifest.

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Competency 5:

The student will demonstrate how to use the audio and video hardware by:

1. Preparing audio and video for playback utilizing the media player interface.
2. Preparing audio and video for recording utilizing the media recorder interface.
3. Controlling the camera and taking pictures.

Competency 6:

The student will demonstrate how to create SMS communication by:

1. Utilizing the SMS manager to send SMS messages.
2. Handling and parsing incoming SMS messages.

Competency 7:

The student will demonstrate how to use the device's motion sensors by:

1. Employing the sensor manager to identify the available sensors.
2. Employing the sensor manager read the compass, accelerometer, and orientation sensors.
3. Interpreting the sensor values.

Competency 8:

The student will demonstrate how to establish network connectivity by:

1. Utilizing Bluetooth to create a connection with another Bluetooth device.
2. Establishing a TCP/IP wireless connection to a remote address.

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