

**Northwest Arkansas Community College**  
Business and Computer Information Systems Division

**Discipline Code**

PROG

**Course Number**

2613

**Course Title**

Advanced Mobile App Development

**Catalog Description**

(S) The student will extend their knowledge and skills in the development of complex apps for mobile devices. Specific areas of emphasis will include the design and development of complex user interfaces, use of web services, use of interactive multimedia, interaction with device sensors, and testing apps. The student will gain additional hands-on experience with the current development tools, current mobile frameworks, and interaction with a database, interaction with web services, the use of persistent user data, mobile permissions, and the use of the device's sensors. (Outside lab time will be required.) Prerequisites: CISM 1433, PROG 2603.

**Prerequisites**

CISM 1433, PROG 2603

**Credit Hours**

3 Credit Hours

**Contact hours**

45 Lecture/Lab contact hours

**Load hours**

3 Load Hours

**Semesters Offered**

Spring

**ACTS Equivalent**

None

**Grade Mode**

A-F

## Learning Outcomes

The students completing this course will:

- Design and develop complex mobile apps
- Design and build complex web apps and hybrid apps
- Build engaging user interfaces
- Implement and display interactive multimedia content
- Build and use simple databases
- Utilize web services
- Make use of data from a mobile device's sensors
- Test apps with and IDE / mobile framework tools
- Develop effective technical documentation

## General Education Outcomes Supported

None

## Standard Practices

### Topics list

- Advanced graphical user interface controls
- Interactive multimedia techniques
- Interacting with websites and web services
- Accessing and using sensors, including GPS, accelerometer, and gyroscope
- Testing apps with current IDE tools and frameworks
- Use of available debugging tools and techniques
- Programming ethics and data privacy
- Publication and monetization options for mobile apps

### Learning activities

- Assignments and Projects
- This course requires some in class, hands-on work and also additional hands-on work in a virtual or on-campus computer lab.

### Assessments

Homework, Projects, Quizzes, and Exams

### Grading guidelines

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%

Last Revision Date: Spring 2022