CS 492 – Mobile Software Development

Credits: This course combines approximately 120 hours of instruction and programming work for 4 credits.

Terms Offered: Winter (On-campus) and Winter+Summer (Ecampus)

Structure: Three 50-minute lectures per week.

Instructor: Justin Wolford, wolfordj@eecs.oregonstate.edu

Prerequisites: CS 311 or CS 344

Courses that require this as a prerequisite: None

Catalog Description:
Introduction to concepts and techniques for developing mobile applications. Students will become familiar with modern mobile structure, implementation, development tools, and workflow.

Short Description:
Introduction to concepts and techniques for developing mobile applications.

Course Content:
- Mobile application development tools and workflow
- Mobile application structure and implementation
- Mobile application performance and scaling
- Asynchronous operations
- On-device mobile data storage
- Mobile interface design principles
- Mobile application analytics and user activity tracking

Course-specific Measurable Student Learning Outcomes:
On completion of the course, students will have demonstrated the ability to:

1. Design and create applications on one or more modern mobile platforms.
2. Use mobile development tools, such as device emulators, for developing and testing applications.
3. Apply appropriate design principles to create an effective mobile application interface.
4. Employ elements of responsive design to create mobile applications that work on different screen sizes.
5. Use other apps on a mobile device to perform operations such as mapping and content sharing.
6. Employ different kinds of on-device data storage, such as preferences, on-device databases, and file-based storage.
7. Evaluate mobile application performance and apply appropriate optimization techniques to allow the application to scale.
8. Use analytics tools to understand in-app user behavior.

**Evaluation of Student Performance:**
- 60% Programming assignments
- 40% Final project

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**Learning Resources:**

**Students with Disabilities:**
Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at [http://ds.oregonstate.edu](http://ds.oregonstate.edu). DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

**Link to Statement of Expectations for Student Conduct**, i.e., cheating policies [http://studentlife.oregonstate.edu/studentconduct/offenses-0](http://studentlife.oregonstate.edu/studentconduct/offenses-0)