IS322: Mobile Applications: Design, Interface, Implementation

Spring 2025 Syllabus

Course Information

Attribute	Details
Course Number	IS322
Section	102
CRN	13519
Course Title	Mobile Applications: Design, Interface, Implementation
Credits	3 credits, 3 contact hours (3;0;0)
Prerequisites	IS 218, IS 219, or IT 202
Meeting Time	Friday, 6:00 PM - 8:50 PM
Location	CKB 206
Delivery Mode	Face-to-Face

Instructor Information

Attribute	Details
Name	Keith Williams
Office	GITC 3420
Email	kwilliam@njit.edu (**Discord Preferred**)

Course Description

This course provides a practical introduction to building applications for mobile devices. It combines hands-on design and development experience with conceptual discussions about design and development challenges. Key topics include:

- Design and development constraints for devices with small screens, limited battery power, and computational resources
- Tools and frameworks for building mobile applications
- Understanding and addressing mobile web constraints

Students will develop a fully functional mobile application as a final project to demonstrate their understanding of mobile development tools and concepts.

Required Setup (Week 1)

1. Mobile development environment
2. Device emulator/simulator
3. Git with SSH keys
4. GitHub account
5. Discord account

Course Structure

Grade Distribution

- Team Project (50%)
    - Design/Implementation: 40%
    - UI/UX: 30%
    - Testing: 20%
    - Documentation: 10%
- Quizzes/Assessments (30%)
- Tech Demonstrations (20%)

Project Milestones

1. Environment Setup & Teams (Week 1)
2. Project Proposal & Wireframes (Week 3)
3. Prototype Development (Week 6)
4. Midpoint Review (Week 9)
5. Testing & Debugging (Week 12)
6. Final Presentation (Week 15)

Office Hours (GITC 3420)

Day	Time	Format	Designated Course
Tuesday	1:00 PM - 2:20 PM	In-Person/Discord	IS601
Thursday	4:00 PM - 5:30 PM	In-Person/Discord	IS421
Friday	4:00 PM - 5:30 PM	In-Person/Discord	IS322

Additional Support:

- Available on Discord throughout the week

- Quick questions can be answered anytime on Discord

- Virtual meetings can be scheduled outside office hours by appointment

- Message on Discord before visiting office hours

- **All students are welcome during any office hour time slot**

Weekly Schedule

1. Mobile Development Intro & Setup
2. UI Design Principles
3. Platform-Specific Design
4. Mobile Frameworks Overview

5. Device Constraints
6. Data Storage & APIs
7. Usability & Accessibility
8. Performance Optimization
9. Mobile Security
10. App Deployment Process
11. Analytics & Monitoring
12. Cross-Platform Strategies
13. Project Integration
14. Testing & Documentation
15. Final Presentations

Course Policies

Late Work

- Assignments: -10% per day (max 2 days)
- Projects: -10% per day (max 4 days)
- No submissions after max late period
- Exceptions need documentation

Communication

- Discord is primary channel
- 24-hour response window
- Technical help in office hours
- Include screenshots/links for issues

Academic Integrity

- Original work required
- Document AI tool usage
- Violations reported to Dean
- Follow NJIT Academic Integrity Policy

AI Tool Usage Guidelines

- Document all usage
- Understand generated code
- Validate AI outputs
- Follow security practices
- Support learning, don't replace it

Resources

- Course GitHub Repository
- Platform Documentation
- Discord Support
- NJIT Canvas

Syllabus subject to change with notice via Discord/Canvas