CS571: Mobile Application Development

Thao Huy Vu, M.S.

Course Overview

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Theme I: NodeJS, MongoDB, React - Life is structured in layers						
Week 1	NodeJS – Restful API	MongoDB Rich Documents	Workshop 1	Mastering React Fundamentals	Mastering React Hooks Midterm-Review	Workshop 2
Theme II: React Native - The Nature of Life is to Grow						
Week 2	Workshop 2 solution Self-Review	Midterm-exam (10:00 AM – 12:30 PM)	React native Components and Styles	React Native ScrollView and FlatList	React Native navigation	Workshop 3
Theme III: React Native - Purification Leads to Progress						
Week 3	Expo Component Workshop 3 Solution	Workshop 4	Auth & Performance & Deployment Final-Review	Workshop 5	Project	Project
Theme IV: Integrating all parts together - The Whole is Greater than the Sum of the Parts						
Week 4	Project	Project Presentation	Self-Review	Final Exam		

CS571
Mobile Application Development
The evolution of the individual and the evolution of the environment are naturally interdependent

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COURSE GOAL

This course transitions from web development to mobile application development using React Native, a popular framework from Facebook that enables cross-platform native applications to run using JavaScript without the need-to-know Java/Kotlin or Swift. In the course, you will use your knowledge of Flexbox specification to build layouts, along with some modern JavaScript, called JavaScript XML (JSX), a JavaScript extension. In addition, you will gain experience with React Native and its paradigms, application architecture, and user interfaces. The course culminates in a final project where you will implement a mobile app entirely of your design.

Course Objectives

React Native is one of the most loved and popular JS libraries for building front-end mobile applications. Students will learn React Native and its vital concepts that help students succeed in the IT industry by working on a project and various applications in class. Topics include:
- *Explore the backend: NodeJS Restful APIs and MongoDB*
- *Develop Web UI with React*
- *Create Mobile UI with React Native*
- *Connect React App with the backend application to create the full software system*

Evaluation Criteria

Midterm Exam	30%
Final Exam	40%
Project	15%
HW & WS	15%

Grading scale

A   92 - 100
A- 88 - 91
B+ 84 - 87
B   79 - 83
B- 75 - 78
C+ 71 - 74
C   66-70
C- 62-65
NC 0 - 61

Contact Info

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McLaughlin #209

Class Attendance Requirements

1. **Class Hours:**

a. Morning Session: 10:00 AM – 12:30 PM, Monday – Saturday
b. Afternoon Session: 1:30 PM – 3:00 PM, Monday – Friday

2. **Attendance Obligation:**
   a. In-person students are required to attend all classes, except under exceptional circumstances.
   b. If you cannot attend a class, you must seek my approval by sending an explanatory email.

3. **Missed Classes:**
   a. Missing three classes without prior approval may warrant consideration of withdrawing from the course.

4. **Homework Submission:**
   a. Failure to submit your first homework solution three times before the deadline (10:00 PM) will result in the loss of all related homework grades.

5. **Punctuality:**
   a. Please arrive on time to prevent any disruptions for fellow students.

6. **Importance of Attendance:**
   a. Attendance is mandatory, as all class components (lectures, discussions, Q&A, labs) contribute to the learning process.

7. **Excused Absences:**
   a. Excused absences are typically granted for illness or family emergencies.

8. **Advance Notice:**
   a. If you anticipate missing a class, please communicate with me beforehand.

9. **First Lesson Importance:**
   a. Attendance is particularly crucial for the first lesson of each course. Students not present on the first morning (excluding valid reasons like illness or family emergencies) may be advised to withdraw.

10. **Unexcused Absences:**
    a. Unexcused absences may result in an NC (No Credit) grade for the entire class.

Your active participation and attendance are key to your successful learning experience. If you have any questions or concerns, please don't hesitate to reach out to me.