

# Fall '07: EE382V Mobile Computing

## Instructor

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## Time and Location

All lectures will be from 1-5pm. The dates of the course are: August 18-19, September 15-16, October 13-14, November 10-11, and December 7-9. The class location is PRC 1.138.

## Course Prerequisites

There are no explicit prerequisites for the course, but an undergraduate level course (or prior experience) in distributed computing will give students a good foundation to begin discussing the difficulties associated with mobile computing.

## Course Overview

As mobile computing devices like laptops, PDAs, cellular phones, and even miniature sensors become increasingly pervasive, the demand for applications for this novel environment escalates. This course explores the effects of mobile computing on software design and development. The approach taken uses current research projects from the field of mobile computing to highlight the key aspects that complicated software engineering. We will focus on these concerns in the context of application development.

## Grading

Your course grade will be based on weekly reading assignments (20%), class participation (10%), a reading presentation (10%), in class quizzes (30%) and a final project, including a presentation (30%).

## Topics

The topics we cover will be taken from current literature in the mobile computing area. Topics covered in the course will include (with a *tentative* schedule):

Weekend 1	Physical and Logical Mobility, Nomadic Computing, Mobile Ad Hoc Networks
Weekend 2	Mobile P2P, Bluetooth, Sensor Networks
Weekend 3	Mobile Algorithms, Middleware, Coordination, Service Discovery
Weekend 4	Energy-, Network-, Location-, and Context-Awareness
Weekend 5	Security, Formal Methods