CSE 535 Mobile Computing Fall 2018, Instructor: Ayan Banerjee

Book: **Fundamentals of Mobile and Pervasive Computing, by** Frank Adelstein, Sandeep K.S Gupta, Golden Richard, and Loren Schwiebert https://books.google.com/books?id=NHf11lURNY8C

8/16/2018	First day of class, Introductions, What is Mobile Computing? Mobile Apps (Chapter 1)
8/21/2018	Theory: Mobile Computing models and systems, Adaptation in Mobile Computing ((Chapter 1)) Assignment 1 Introduction
8/23/2018	Android Programming: Activity Theory: Context Aware Computing (Chapter 4)
8/28/2018	Android Programming: Broadcast receivers, Services Theory: context definitions (Chapter 4)
8/30/2018	Theory: Context Definitions continued
9/4/2018	Theory: Cognitive Mobile Computing, Implementation of machine learning algorithms in mobile computing infrastructure Android Programming: Multithreading Group Formation Done
9/6/2018	Android Programming: Multithreading example, Theory: Thread implementation, scheduling, and synchronization issues
9/11/2018	Theory: Sensing in Mobile Computing, Gestures, Physiological sensing, brain sensing, Android Programming: Sensor Interfacing, Gesture recognition
9/13/2018	Theory: Mobility and probability theory
9/18/2018	Theory: Location Management (Chapter 2) Android Programming: Location based services

9/20/2018	Theory: Security (Chapter 12)
9/25/2018	Theory: Security (Chapter 12) Android Programming: Security
9/27/2018	Theory: Mobile Middleware (Chapter 5 and 6)
10/2/2018	Assignment 1 Due Theory: Machine Learning Exam Review Midterm Assignment 2 intro
10/4/2018	Midterm (Take Home)
10/11/2018	Theory: Mobile Offloading Android Programming: The Android Wear Platform
10/16/2018	Midterm Submission and Discussion Theory: Mobile IP (Chapter 2)
10/18/2018	Theory: Performance evaluation of mobile apps Application interference
10/23/2018	Theory: Smartphone GPU Android Programming: Wear Platform continued
10/25/2018	Theory : Power Energy Performance Android Programming: GPU programming in mobile computing

10/30/2018	Theory: Energy Efficiency and energy harvesting in mobile computing
11/1 /2018	Theory: Internet of Things Idea Paper Due
11/6/2018	TBD Final Exam Assigned
11/8/2018	TBD
11/13/2018	TBD
11/15/2018	TBD Assignment 2 Due
11/20/2018	TBD
11/27/2018	TBD
11/29/2018	Final Exam Due

Instructor: Dr. Ayan Banerjee, abanerj3@asu.edu

TA: Koosha Sadeghi, ssadegh4@asu.edu (office hours: Wed 2-4pm, BYENG 517AC)

(Note: For all emails, please include **CSE 535** in the subject line)

Grading Scheme:

Midterm: 15% (take home)

Assignments: 20% (Assignment 1 = 10%, Assignment 2 = 10%)

Final Exam: 20% (take home)

Mobile Computing Project 30% - (this is a group project. Group size is strictly 4. No exception to this rule. Selected from a set of discussed)

Student Paper Contest 15% - Write a four page research paper on a current topic. Do a literature survey. Find an unsolved problem, propose a unique solution idea. DO a feasibility study. No need for extensive evaluation. Three way peer review.

Papers will be graded on three criteria:

a) relevance of the idea, b) difficulty of the problem, c) comprehensiveness of literature survey, d) uniqueness of solution idea, and e) quality of feasibility analysis.

A+	>100%	C+	>=78- <79%

A	>=94-100%	C	>=70- <77%
A-	>=90- <94%	D	>=60- <69%
B+	>=88- <90%	E	<60%
B	>=84- <87%		
B-	>=80- <83%		