Course Syllabus	**EECS 4020 – Senior Design II**
Credits & Contact Hours	3 credit hours & one 50-minute recitation contact hour per week.
Instructor's Name	Dr. Mohammed Niamat
Textbook	Design for Electrical and Computer Engineers: Theory, Concepts, and Practice by Ralph M. Ford and Chris S. Coulston, McGraw Hill, 2007.
Course Information	Student teams implement, test and evaluate a design previously proposed in EECS 4010. Written reports on progress and final project are required. Preliminary design and critical design reviews may be performed. Oral presentation and senior design exposition participation are needed.
	Prerequisite: EECS 4010 Senior Design I
	Required course

Specific Goals-Student Learning Objectives (SLO's)

The student will be able to…

1. design a complex system (or component or process) to realistic performance specifications in compliance with applicable engineering standards and multiple realistic constraints, and report the results through a comprehensive and professional technical write-up and oral/poster presentation.
2. build a prototype of a design and demonstrate that it meets performance specifications.
3. list and discuss several possible reasons for deviations between predicted and measured results from an experiment or design, and choose the most likely reason and justify the choice.
4. participate effectively in a team project and assess the strengths and weaknesses of the individual team members (including himself/herself) and the team as a unit.
5. function effectively on a team, with effectiveness being determined by instructor observation, peer ratings, and self-assessment.
6. write an effective technical correspondence (i.e. abstract, executive summary, design review document, project report) and give an effective oral presentation.
7. explain aspects of the design project, process, or product to a range of audiences.

Topics

1. Engineering design process
2. System design including functional decomposition and behavioral models
3. Design review
4. Testing and reliability