

## EE4391 ENGINEERING PROBLEMS SEMINAR

Research Mentor: Dr. Benjamin C. Flores  
Office: Engineering Complex  
Laboratory: Engineering 401  
Meeting Hours: Fridays, 10:00 AM to 11:30 AM

*Course Description: Original investigation of special problems in the student's field, the problem to be selected by the student with the approval of the head of the department. A maximum of three credit hours of engineering problems may be applied toward the BS degree.*

Goal: This semi-structured course will allow students to gain a deeper insight about their field of study by involving them in a specific open-ended design problem with a minimum set of constraints.

**Learning Outcomes.** By the end of the design experience the student will be able to:

1. Define a problem statement
2. Conduct a pertinent literature review
3. Develop a rigorous methodology to solve the proposed problem
4. Analyze, simulate, implement and test prototype
5. Draw conclusions and explain the significance of results
6. Communicate work results to the professor and peers in a formal setting

**Final Grade.** All students participating in this course are expected to complete the project in 15 weeks. Student must demonstrate mastery of material to earn an A. A lower final grade may be earned if the project is deficient in any one of four key areas (analysis, simulation, implementation, or results/conclusions).