

<b>Course number and name:</b> EL 4396 – Design Capstone II: Development & Evaluation	
<b>Course Description:</b> This course is the second semester of a two-semester capstone design course in engineering leadership. Particular focus is on preparing and implementing a project design in which leadership engineering skills are applied to build a cohesive team and to successfully execute a real-world project.	
<b>Course Credit:</b> 3 --- <b>Contact Hours:</b> 8 <b>Prerequisites:</b> EL 4395 <b>Co-requisites:</b> <b>Cross/Co-listed with:</b>	
<b>Instructor/Course Coordinator:</b> David Novick - TA Guillermo Beckmann	
<b>Textbook(s) &amp; required materials:</b> <ul style="list-style-type: none"> <li>• <i>Leadership in Project Management</i>, 2<sup>nd</sup> Ed by M. Arora and H Baronikian, ISBN 978-0-9917792-1-5</li> <li>• <i>What Every Engineer Should Know about Accounting and Finance</i>, 1<sup>st</sup> Ed by JK Shim and N Henteleff, ISBN 978-0824792718</li> <li>• <i>Leadership – Theory &amp; Practice</i> by Northouse</li> </ul> <p>Selected readings to be assigned from the instructors and the industry mentor</p>	
<b>Course Learning Outcomes:</b> On completion of the course, the student will be able: <ol style="list-style-type: none"> <li>1) To accomplish the general scope and feasibility of the design and complete it with full documentation during the second semester</li> <li>1) To demonstrate that the design has met objectives by considering various alternatives and meeting predefined constraints</li> <li>2) To understand both the impact of engineering solutions in a global and societal context and one’s professional and ethical responsibility</li> </ol>	
<b>Contribution to professional component:</b>	
<b>Relationship to Program Outcomes:</b> Recognize need for additional knowledge; recognize leadership issues, recognize leadership built on character, capacity, and competence	
<b>Grading Scheme:</b>	Weekly SCRUM reports: 10%; Team Design notebook: 20%; Final and Scrum Team Presentations: 10%; Mentor Evaluation 15%; Homework 5%; Quizzes 12.5%; Exams 12.5%; Final Poster: 5%; Final Video: 10%
<b>Sample Topics:</b>	
Open-ended design Proposal writing Project management and associated tools Oral presentations Leadership vision	Engineering Constraints Design standards Engineering design process Intellectual property in the workplace