**Course number and name:**
EL 4396 – Design Capstone II: Development & Evaluation

**Course Description:** 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.

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<tr>
<th>Course Credit:</th>
<th>3 ---</th>
<th>Contact Hours:</th>
<th>8</th>
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<tbody>
<tr>
<td>Prerequisites:</td>
<td>EL 4395</td>
<td>Co-requisites:</td>
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**Instructor/Course Coordinator:** David Novick - TA Guillermo Beckmann

**Textbook(s) & required materials:**
- *Leadership – Theory & Practice* by Northouse

Selected readings to be assigned from the instructors and the industry mentor

**Course Learning Outcomes:**
On completion of the course, the student will be able:
1) To accomplish the general scope and feasibility of the design and complete it with full documentation during the second semester
2) To demonstrate that the design has met objectives by considering various alternatives and meeting predefined constraints
3) To understand both the impact of engineering solutions in a global and societal context and one’s professional and ethical responsibility

**Contribution to professional component:**

**Relationship to Program Outcomes:** Recognize need for additional knowledge; recognize leadership issues, recognize leadership built on character, capacity, and competence

**Grading Scheme:**
- 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%
- Mentor Evaluation 15%
- Final Poster: 5%
- Final Video: 10%

**Sample Topics:**
- 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