The MAE 4287/4188 Senior Design (SD) sequence requires the completion of a substantive technical project whose purpose is to emulate a professional, team-based engineering experience. The projects are open-ended in nature, integrate engineering knowledge from multiple subject matters, and touch on multiple phases of the design cycle—from problem definition through prototyping.

For each two-semester SD cohort, the course begins with the formation of student teams and assignment of projects. During the first class period, SD faculty discuss a series of project prompts around which student teams come together and bid according to preference. These project prompts are drawn from faculty research and industry partners.

Alternatively, interested student teams are invited to submit a project prompt of their own creation for a product whose development they would like to undertake. Such “entrepreneur track” project prompts are subject to the following guidelines:

1. Project prompts must be submitted for consideration by a student team comprising at 4-5 members (minimum 5 for Fall 2016). Individual team members explicitly agree to:
   a. Remain together for SD purposes (i.e., not “jump” to a different project)
   b. Appoint a team captain to communicate with SD faculty on the team’s behalf

2. Submissions will be evaluated on:
   a. technical merit
   b. business case
   c. quality of write-up and supporting information (visuals, references, etc.)
   d. strength and feasibility of deliverables
   e. anticipated costs
   f. overall suitability as an MAE Senior Design project

3. **At the discretion of SD faculty**, project prompts thus submitted will be accepted or declined. Student teams will be notified promptly of the decision.

4. **At the discretion of SD faculty**, projects which are accepted may be modified in scope and deliverables to meet the standards of the MAE Senior Design course.

5. **At the discretion of SD faculty**, student teams whose proposal is declined may be directly assigned to another project or offered to select from other available projects.
Entrepreneurial track projects follow in lockstep with other SD projects and share the same rigor in engineering analysis. Importantly, they are not “blue-sky” technology development. They are expected to focus on the prospect of a commercial product, and must therefore address basic business model topics (a nominal business plan or canvas is a required deliverable; see, for example, https://www.sba.gov/writing-business-plan or http://businessmodelgeneration.com). A Faculty Advisor will be assigned and act as a formal “Client” for the team.

Confidentiality and Intellectual Property. The MAE Senior Design sequence is an academic requirement conducted fully under university auspices and utilizing university resources in an open, shared environment. Although creativity is encouraged and intellectual property may be discovered, the expectation is that this course is not a platform for the pursuit of ideas or business enterprises which are individual or private in nature—potentially interfering with learning outcomes. Accordingly:

6. While students may bring their own ideas to Senior Design, and may own intellectual property developed, students acknowledge that public disclosure of their project work is an integral part of the course (e.g., class presentations), and that such public disclosure may result in a loss of the ability to pursue intellectual property rights in the future.

7. In the event that intellectual property is developed, conceived and/or reduced to practice as a result of performance of the projects, students have the option to disclose such intellectual property to UTA’s Office of Technology Management (OTM) via the OTM email address: otm@uta.edu. UTA’s Intellectual Property Disclosure Form may be found on the OTM website, at http://www.uta.edu/research/_docs/IPD-Short-Form-Fillable-7-13.pdf.

8. University employees such as faculty, staff and student employees, who may be involved to interact with students and may in fact contribute to intellectual property, are, as University employees using University facilities, subject to policies of the Board of Regents of The University of Texas System (“Regents”) as set forth in the Regents’ Rules and Regulations, at http://www.utsystem.edu/board-of-regents/rules, including IP Series 90000.

Submission. Student teams, together or through their captain, are encouraged to discuss their project ideas with SD faculty in advance. Project prompts must be submitted to Dr. Fernandez via email by the team captain prior to the first class meeting, following the PPT format provided. The write-up in the second slide, or attached document, should succinctly address these topics to the best of your ability:

- Project background (briefly describe unmet need and its importance)
- Business case (describe your thoughts regarding commercial viability if the need can be met)
- Anticipated resource needs (best guess of need for equipment, financial support, etc. throughout the duration of the Senior Design course; some funds may be made available based on merit)
- Anticipated deliverables (analyses, tests, prototypes, etc.)
- References (links to websites for competing products, ideas, evidence of need, etc)