# Mechanical and Manufacturing Engineering
## Senior Design Policy

The Senior Design project represents the practical execution of engineering skills and knowledge gained from all sources during the college career. The Senior Design sequence (MME 480, 481) represents the capstone design experience that requires both teamwork and individual skills. The burden for successful completion of the Senior Design project falls upon the student teams, not the advisor.

A) The MME department has the following Senior Design guidelines:
   1. Only MME majors with a major GPA of at least 2.50 and in good standing are eligible.
   2. Three or four member per project team unless approved by faculty.
   3. The following table lists the pre- and co-requisities for both MME majors for MME 480:

|  | BS in Mechanical Engineering | BS in Manufacturing Engineering |
| --- | --- | --- |
| **Prerequisites: (should be taken prior to MME 480)** | GENG 380 Eng. Communication<br>MME 333 Mfg Processes<br>MME 342 Fatigue and Machine Design<br>MME 352 Measurement and Sensors | GENG 380 Eng. Communication<br>MME 333 Mfg Processes<br>MME 342 Fatigue and Machine Design<br>MME 352 Measurement and Sensors |
| **Corequisite: (can be taken the same semester as MME 480)** | MME 303 Fluids and Convection | MME 334 Lean Manufacturing OR<br>MME 461 Quality Engineering |

   4. An MME faculty member must agree to act as team advisor and help define the project.
   5. The Senior Design sequence must be taken in two consecutive semesters starting in either Fall or Spring (senior design is not offered in the summer).

B) Senior Design course requirements include:
   1. A student team works together and with an MME faculty advisor on a design project.
   2. Students must be enrolled for two consecutive semesters (MME 480 and 481).
   3. Attendance at scheduled Senior Design activities is required as advertised by the senior design coordinator faculty.
   4. An F grade in 480 terminates the sequence. An F grade in 481 results in a grade change of 480 to an F.
   5. Periodic progress reports will be required, some may be written and some by presentation.
   6. Teams will give a final presentation to the class and host company (if applicable). Final presentation may be in the form of an oral or a poster presentation.
   7. All presentation materials need to be approved by the sponsoring company in writing to be cleared for public viewing.

8. A draft written project report must be provided to faculty and host for review two (2) weeks prior to the end of the project.
9. The faculty advisor and sponsoring company must be given copies of the final report which includes input from the sponsor.
10. The final project report needs to include applicable industry and design codes and standards relevant to the experience.

C) Projects are selected as follows:
1. Department will have a number of senior design projects available which will be announced to you during the first two weeks of MME 480.
2. Identify subspecialty in the MME field of interest. Students can bring appropriate projects to the department through their internship or co-op experiences for consideration (subject to faculty approval).
3. Find two (in some cases three) other students who have compatible project interests. List your preferred projects.
4. Your final project assignment and your faculty advisor will be determined by MME faculty and be announced to you by the end of the second week of MME 480.
5. Secure approval of the sponsor company (if applicable). Having a sponsoring company does not assure success and incurs some risk of unplanned project changes. Faculty advisors dictate project change implications to the definition of course success. Hosts may provide grade input.

D) Deviations from this policy must be approved by the entire department.

**Note:** Completing the senior design project on time is solely the responsibility of the student team and typically requires a minimum average of nine hours per week for the entire senior year for each team member. Many teams work extended hours including over winter and spring breaks to finish on time. For a variety of reasons, some projects do not finish on time and graduation is delayed. Most faculty advisors require more student independence and autonomy than in typical classes. The faculty advisor serves as a management and technical resource but is not part of the team.

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