**ME 481 Schedule**  
**Fall 2023**  
Schedule is subject to change as circumstances during the course of the semester demand.  
Bold items denote items that MUST be turned in for credit.  
[Faculty Lecturers: MN: Dr. Mehrdad Nejhad, TS: Dr. Trevor Sorensen]

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Weekly Tasks/Milestones</th>
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</thead>
</table>
| 1    | Welcome & Introduction  
(TS & MN)  
(Sec 1: No Lab, Sec 2: Finalizing Teams) | Design Process Overview  
([MN][ZT])  
During Lab Sections:  
Project Shopping/Scopes | -Finalize projects  
-Initial team and sections selections  
-Design Notebooks Guidelines |
| 2    | Design Process Overview  
([MN]) | Project Management [TS]  
(WBS; GANTT charts; reviews - SRR, PDR, CDR, TRR; risk) management; | -Assumption of Risk  
-Design Lab Access [Forms available on-line on RIP]  
-Freeze teams and Schedule Weekly Meeting Times  
-Background information and Literature Search |
| 3    | NO CLASS - Labor Day | Project Management – cont  
([TS])  
(WBS; GANTT charts; reviews - SRR, PDR, CDR, TRR; risk) | -Objective Statements/Functional Requirements  
-Request for Proposal (RFP), sample posted  
-Report Outline  
-Design Process Examples (Lab Sections) |
| 4    | Project Management – cont  
([TS])  
(Requirements Definition & Management [TS]) | Safety Training & Release Forms (Lewis Moore)  
([MN]) | -Literature Search  
-Brainstorming  
-Order-of-magnitude analysis  
-Project Proposal Guidelines (Lab Sections) |
| 5    | Engineering Communication (Oral Communication) [MN] | Literature Survey, library resources, finding reports and patents, search strategies, engineering database - [TS] | -Strategies  
-Group Check  
-Report Outline, and Draft  
-Project Proposal Report Reviews (Lab Sections) |
| 6    | Engineering Communication (Writing Communication) [MN] | Systems Engineering - [TS] | Literature Search  
-Concepts  
-Project Proposal Report Due (Lab Sections) |
| 7    | Systems Engineering - cont. [TS] | Ethics - The basics and ASME code [MN]  
Ethics - Evaluation Theories [MN] | -Concept Selection  
-Modules  
-Safety Training (Moore) - 30 min (Mandatory) |
-MCM  
-Proof of Concept |
| 9    | Concepting [MN]  
Modeling [MN] | FSAE Lecture on CAD, FEA, CFD: 2:30 – 4:30 PM on Zoom | -Solid Modeling Workshop Checkoffs  
-FEA Workshop (Solid Works)  
-Modeling & Analysis  
-Website/Wiki and Design Notebook Checks |
| 10   | Finite Element Analysis (FEA) & FEA Boundary Conditions [MN] | Failure Analyses [MN] | -Bench level/Prototype testing  
-Group Check |
| 11   | Patents and Intellectual Property (IP)  
Preliminary Design Reviews (During Lab Sections) |
| 12   | Team Dynamics [MN] | Failure Mode & Effect Analysis (FMEA) [TS] | -Detailed Analyses and Material Selections  
Preliminary Design Report Due |
| 13   | Engineering Economics [TS]  
Selling your idea/Sales Pitch [TS]  
Vincent Kimura, Office of Innovation and Commercialization | | -Detailed Analyses and Final Materials Selections  
Revise/iterate |
-Panic --- Then finish loose ends! |
| 15   | "Good Grades do Count, but That’s Not All" [MN] | No Lecture Class | -Sales pitch and Website/Wiki  
-Website/Wiki and Design Notebook Checks  
-Design Freeze |
| 16   | Final Presentation/CDR (1)/Lab Sections  
Final Presentation/CDR (2)/Lab Sections  
Last Day of Classes for ME 481 | | -Comprehensive Design Review/Presentation (CDR) |
| 17   | -Final Website Check | | -Comprehensive Design Report (CDR) |

12/13: - Comprehensive/Critical Design Report  
-Design Notebooks  
-Peer Evaluations Due by 8 AM 12/14/2023