

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]

Week	Monday		Wednesday		Weekly Tasks/Milestones
1	8/21	Welcome & Introduction [TS & MN] (Sec 1: No Lab, Sec 2: Finalizing Teams)	8/23	Design Process Overview [MN] During Lab Sections: Project Shopping/Scopes	-Finalize projects -Initial team and sections selections -Design Notebooks Guidelines
2	8/28	Design Process Overview [MN]	8/30	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	9/4	NO CLASS - Labor Day	9/6	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	9/11	Project Management – cont [TS] (WBS; GANTT charts; reviews - SRR, PDR, CDR, TRR; risk) Requirements Definition & Management [TS]	9/13	Safety Training & Release Forms (Lewis Moore) [MN]	-Literature Search -Brainstorming -Order-of-magnitude analysis -Project Proposal Guidelines (Lab Sections)
5	9/18	Engineering Communication (Oral Communication) [MN]	9/20	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	9/25	Engineering Communication (Writing Communication) [MN]	9/27	Systems Engineering - [TS]	-Literature Search -Concepts - Project Proposal Report Due (Lab Sections)
7	10/2	Systems Engineering - cont. [TS]	10/4	Ethics - The basics and ASME code [MN] Ethics - Evaluation Theories [MN]	-Concept Selection -Modules - Safety Training (Moore) - 30 min (Mandatory)
8	10/9	Concepting [MN]	10/11	Solid Works Solid Modeling Lecture [ZT] and Workshop Assignments [ZT, TS, & MN]	- Solid Modeling Workshop (Solid Works) -MCM -Proof of Concept
9	10/16	Modeling [MN]	10/18	Solid Works Finite Element Analysis (FEA) Lecture [ZT] and Workshop Assignments [ZT, TS, & MN]	- -FEA Workshop (Solid Works) -Modeling & Analysis -Website/Wiki and Design Notebook Checks
10	10/23	- Finite Element Analysis (FEA) & FEA Boundary Conditions [MN]	10/25	-Failure Analyses [MN]	-Bench level/Prototype testing -Group Check Solid Modeling Workshop Checkoffs
11	10/30	Materials Selection [MN]	11/1	Patents and Intellectual Property (IP) Patent Attorney (or from UH-OTT) [MN]	- FEA Workshop Checkoffs Preliminary Design Reviews (During Lab Sections)
12	11/6	Failure Mode & Effect Analysis (FMEA) [TS]	11/8	FSAE Lecture on CAD, FEA, CFD: 2:30 – 4:30 PM on Zoom [MN]	--Detailed Analyses and Material Selections Preliminary Design Report Due
13	11/13	Engineering Economics [TS]	11/15	Selling your Idea/Sales Pitch [TS] Vincent Kimura, Office of Innovation and Commercialization	-Detailed Analyses and Final Materials Selections -Revise/iterate Sales pitch and Website/Wiki
14	11/20	Ethics - Case Studies [TS]	11/22	In-Class Sales Pitch [TS] & [MN]	- Website/Wiki and Design Notebook Checks Begin Final Report Draft -Panic --- Then finish loose ends!
15	11/27	Team Dynamics [MN]	11/29	"Good Grades do Count, but That's Not All" [MN]	-Design Freeze
16	12/4	Final Presentation/CDR (1)/Lab Sections	12/6	Final Presentation/CDR (2)/Lab Sections Last Day of Classes for ME 481	- Critical Design Review/Presentation (CDR)
17	12/11	- Final Website Check	12/13	- Critical/Comprehensive Design Report - Design Notebooks - Peer Evaluations Due by 8 AM 12/14/2023	- Critical/Comprehensive Design Report (CDR)