

**ME125: industry-Associated Capstones for Mechanical Engineering (iACME)
SPRING 2018
SYLLABUS**

Week	Date	What
1	Jan. 15	<ul style="list-style-type: none"> • Lecture: MLK Birthday Holiday—no lecture • Assignment: Review available Capstone Projects and fill out Google Survey, identifying areas that you can contribute and projects of interest
2	Jan. 22	<ul style="list-style-type: none"> • Lecture: Course Introduction and Expectations • In-Class Assignment: Team formation based on completed Google Surveys
3	Jan. 29	<ul style="list-style-type: none"> • Lecture: O'Connell/Sohn Team Interviews (note that we will notify accepted teams within 48 hrs) • 2 Assignments: 1) Accepted teams will conduct 1st Interviews with Industry Mentors; 2) Teaming exercise with collaborative plan
4	Feb. 5	<ul style="list-style-type: none"> • Lecture: Invited Speaker, Sara Beckman—Identifying customer/client needs and surveys • Assignment: Interview potential users/people in the ecosystem (results are due Feb. 19 in class)
5	Feb. 12	<ul style="list-style-type: none"> • Lecture: Brainstorming, product specifications and plan, and storyboarding—Alice Agogino, tentative speaker • Assignment: Brainstorm 20+ ideas. Define and prioritize product specs to narrow down design idea to your top 3 ideas. Develop a plan for prototyping etc. (Ghantt chart) and proposed budget
6	Feb. 19	<ul style="list-style-type: none"> • Lecture: President's Day—no lecture • Assignment: 2nd Interview with Industry Mentor regarding brainstorming/product concepts;
7	Feb. 26	<ul style="list-style-type: none"> • Lecture: Project experiences from mid-career engineer (Boeing) • Assignment: Develop a low-fidelity prototype
8	March 5	<ul style="list-style-type: none"> • Lecture: Robust design and testing products (Apple) • 2 Assignments: 1) Define project-specific test factor and output measures and develop 'works like' prototypes for testing; 2) Prepare Team Check-In presentation, Team Summary, Self- and Peer-Evaluations
9	March 12	<ul style="list-style-type: none"> • Lecture: Rep. from large company about full design process (P&G); Team presentations • Assignments: Testing and reflecting

10	March 19	<ul style="list-style-type: none"> • Lecture: Invited Speaker, Ian Shain (startup) • 2 Assignments: 1) 3rd interview with Industry Mentor; 2) redesign prototype based on experiments/testing
11	March 26	<ul style="list-style-type: none"> • Lecture: Spring Vacation—no lecture • Assignments: 1) Prepare Team Check-In presentation, Team Summary, Self- and Peer-evaluations; 2) Develop and create higher-resolution complete prototype—works and looks like product (Due on 4/23)
12	April 2	<ul style="list-style-type: none"> • Lecture: Managing projects; Team presentations • Assignment: None
13	April 9	<ul style="list-style-type: none"> • Lecture: Intellectual property (Lynn Hollyer, tentative speaker) • Assignment: None
14	April 16	<ul style="list-style-type: none"> • Lecture: Open design • Assignment: None
15	April 23	<ul style="list-style-type: none"> • Lecture: Final Presentations • Assignment: 4th Interview with Industry Mentor
16	RRR—date to be decided	<ul style="list-style-type: none"> • Demo Day, Final project report & Self- and Peer-evaluations due