Industrial Systems Engineering Senior Design Project

EIN 4335 Section 2611
Class Periods: Tuesdays | Period 6 – 8 (12:50 PM - 3:50 PM)
Location: WEIM 1064
Academic Term: Fall 2025

Instructors:
Dr. Mengyu Li (co-teacher)
Email: mengyu.li@ufl.edu
Office Location: 379 Weil Hall
Office Phone: 352-294-6391
Office Hours: Tuesdays 2:30 – 3:50 pm, or by appointment

Teaching Assistant/Peer Mentor/Supervised Teaching Student:
N/A

Course Description
The integration of industrial and systems engineering methodologies with emphasis on methods of successful implementation on a real-world problem. A project and case-study oriented course.
Credits: 3

Course Pre-Requisites / Co-Requisites
None

Course Objectives
The purpose of this course is to give students skills in carrying out a project for a designated client, just as practicing engineers. This course brings together many of the tools presented in previous courses to solve the problems defined in the project. Students also acquire additional experience in giving presentations and technical writing. Students will:

- Solve a client-driven problem and present their answer for review
- Gain exposure to ISE as a profession
- Illustrate the use of ISE in practice
- Acquire background in professionalism, including business etiquette, ethics, and teamwork
- Integrate a variety of ISE tools and use those tools in problem-solving
- Further develop writing and presentation skills

Materials and Supply Fees
There are no required supplies, but you may have to purchase project related items such as (binders, printing, etc.) not to exceed $50 per team.

Relation to Program Outcomes (ABET):
This is supports the follow PEOs of our BSISE program:
Within five years of graduation, BSISE graduates:

- Are successful professional using industrial and systems engineering skills;
- Acquire advanced knowledge through continuing education or advanced degree programs;
- Are active leaders in their profession and/or community.

Outcome	Coverage*
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	High
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of	High

public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
3. An ability to communicate effectively with a range of audiences	High
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	Medium
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	High
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	Medium
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	High

*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not covered or assessed in the course.

Required Textbooks and Software

- None

Recommended Materials

- None

Required Computer

Recommended Computer Specifications: https://it.ufl.edu/get-help/student-computer-recommendations/
HWCOE Computer Requirements: https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/

Course Schedule*

**This is a tentative outline. The instructor reserves the right to make changes as she sees necessary.*

Week	Dates	Topic(s)
Week 1	8/26/2025	Introduction to Senior Design / Project Introductions
Week 2	9/2/2025	Project Assignments / Team Building / Team Charter & Agreement
Week 3	9/9/2025	Interacting with Clients
Week 4	9/16/2025	*Project Work Time*
Week 5	9/23/2025	Career Week Prep and Beyond - Karissa Singh & Sara Jay, Career Connections Center
Week 6	9/30/2025	*Career Week! No Class*
Week 7	10/7/2025	Presentation/Report Writing Skills & Midterm Requirements
Week 8	10/14/2025	Presentation Workshop
Week 9	10/21/2025	**Midterm Presentation *Required**
Week 10	10/28/2025	Report Writing/Project Work Time/Check-in
Week 11	11/4/2025	Game of Life
Week 12	11/11/2025	Moving Forward

Week 13	11/18/2025	*Project Work Time*
Week 14	11/25/2025	*Holiday*
Week 15	12/2/2025	**Poster Session *Required**

Attendance Policy, Class Expectations, and Make-Up Policy

- Attendance is required (unless instructed otherwise) and shall be monitored. The first absence is -5 points, the second absence is -20, and the third absence is -25. **If you miss more than 3 class periods you will not pass the class.** Students unable to attend should notify the instructor of excused absences via email IN ADVANCE of the planned absence; in emergencies, the notification should occur BEFORE THE NEXT SCHEDULED LECTURE.
- Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. Click here to read the university attendance policies: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/
- Regardless of whether an absence is excused or unexcused, students are responsible for any coursework missed as a result of the absence.
- You are expected to be present for the Midterm Presentation, Poster, and Final Presentation session. Please plan accordingly.

Evaluation of Grades

Assignment	**Total Points**	**Percentage of Final Grade**
Class Participation/Attendance	50	5.0%
Team Charter	50	5.0%
Team Agreement	25	2.5%
Midterm Presentation	100	10.0%
Midterm Report	100	10.0%
Midterm Peer Eval (Individual)*	25	2.5%
Poster	100	10.0%
Final Presentation	100	10.0%
Final Report	200	20.0%
Final Peer Eval (Individual)*	25	2.5%
Other Deliverables (Meeting Minutes, etc.)	50	5.0%
Sponsor Eval	50	5.0%
Faculty Eval	50	5.0%
Instructor Eval	75	7.5%
TOTAL	**1000**	**100%**

Grading Policy

Percent	**Grade**	**Grade Points**
93.0 - 100.0	A	4.00
90.0 - 92.9	A-	3.67
87.0 - 89.9	B+	3.33
83.0 – 86.9	B	3.00
80.0 – 82.9	B-	2.67
77.0 - 79.9	C+	2.33
73.0 – 76.9	C	2.00
70.0 - 72.9	C-	1.67
67.0 - 69.9	D+	1.33
63.0 - 66.9	D	1.00
60.0 - 62.9	D-	0.67

0 - 59.9	E	0.00

Academic Policies & Resources

To support consistent and accessible communication of university-wide student resources, instructors must include this link to academic policies and campus resources: https://go.ufl.edu/syllabuspolicies. Instructor-specific guidelines for courses must accommodate these policies.

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu