Department and Professional Orientation
EML 2920 Section 6060
Class Periods: T 5th period, 11:45-12:35
Location: Online by Zoom
Academic Term: Spring 2023

Instructor:
Name: James Trainham
Email Address: jtrainham@ufl.edu
Office Phone Number: 303-408-1069 (M), please text to arrange an appointment.
Office Hours: M/W: 4:00-5:00 PM by Zoom

Teaching Assistant/Peer Mentor/Supervised Teaching Student:
Please contact through the Canvas website
* Name, email address, office location, office hours: **N/A**
* Name, email address, office location, office hours: **N/A**

Course Description
Principles of mechanical and aerospace engineering practice, professional standards, engineering ethics. 1 Credit

Course Pre-Requisites / Co-Requisites
None

Course Objectives
The purpose of the course is to provide students with exposure to wide-ranging aspects of mechanical and aerospace engineering, including:
• Breadth of MAE subdisciplines
• Diversity of MAE engineers and endeavors
• Career paths, including graduate school
• Excitement, relevance, and societal impact of MAE
• Ethical practices and regulatory affairs
• Professional resources, e.g., recent graduates and professional societies
• Peer-reviewed research
• Intellectual property
To accomplish these broad objectives, specific knowledge and skills will be built through discussions and assignments on the National Academy of Engineering Grand Challenges in Engineering that include:
MAKE SOLAR ENERGY ECONOMICAL; PROVIDE ENERGY FROM FUSION; DEVELOP CARBON SEQUESTRATION METHODS; PROVIDE ACCESS TO CLEAN WATER, RESTORE, AND IMPROVE URBAN INFRASTRUCTURE; ENGINEER BETTER MEDICINES; SECURE CYBERSPACE; ADVANCE PERSONALIZED LEARNING

Materials and Supply Fees
None

Required Textbooks and Software
None

Required Computer:
This is discussed on both the department and college websites:
* https://www.eng.ufl.edu/students/resources/computer-requirements/
* https://mae.ufl.edu/academics/prospective/undergraduate/computer-requirements/
Bottomline: if you don't have a laptop, you need one.

Recommended Materials

ASME Ethics Link
https://www.asme.org/about-asme/governance/ethics-in-engineering

Relation to Program Outcomes (ABET):
The table below is an example. Please consult with your department's ABET coordinator when filling this out.

Outcome	Coverage*
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	Low
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of 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	Medium
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	High
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	Medium
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	Medium

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

Course Schedule
Meet each Tuesday starting August 29th to December 5th via Zoom. Generally, guest lecturers will present topics outlined in the course objectives. Then, there will be an open Q/A session. The lecture period will conclude with a group-based breakout session. Office hours via Zoom will be M/W 4:00-5:00 PM.

Zoom Links:
Lecture: https://ufl.zoom.us/j/97578682828?pwd=c3dmWU53emUzdC9uemRyeXM1QXpmUT09

Office Hours: https://ufl.zoom.us/j/95509325126

Attendance Policy, Class Expectations, and Make-Up Policy

The objective is to provide a live Zoom class. Attendance is required and recorded by logging in through the Zoom lecture link. For the best results, log in using a computer consistent with UF policy. Required attendance starts August 29th. There will be at least one extra bonus meeting for students to make up for missed classes. The lecture periods are not recorded. You are responsible for participating, staying up to date on all announcements, in-class lectures, posted video lectures, reading assignments, homework, and group assignments. Canvas quizzes are found in Canvas under "Quizzes" and these are usually time sensitive. Zoom polls occur during class while in

Zoom. Course notes will not always be supplied on the Canvas webpage. Late homework is not generally accepted. Late group project submission is not generally accepted. Makeup work is only allowed for students with extreme, documented circumstances. Students must contact the instructor as soon as possible to provide documentation and request make-up work. Note: club sport activities are not excused absences, personal vacations are not excused absences, job interviews are not excused absences.

Group participation is required for some assignments. Individual grades for group project assignments are subject to change (+/-) based on peer evaluations.

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/

Evaluation of Grades

Assignment	Total Points
Individual Work -Attendance -Canvas Quizzes, Individual assignments -Zoom Polls	50%
Group, Project Work	50%
Total:	100%

*Note: *Group Project Grade subject to adjustment (+/-) based on peer evaluations.*
Note: No Final Exam

Grading Policy
The following is given as an example only.

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Students Requiring Accommodations
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

In-Class Recording
Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without the permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive 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, including the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information, and veteran status.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:
• Your academic advisor or Graduate Program Coordinator
• HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
• Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu

• Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html

Campus Resources:

Health and Wellness

> **U Matter, We Care:**
> Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.
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> **Counseling and Wellness Center:** https://counseling.ufl.edu, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
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> **Sexual Discrimination, Harassment, Assault, or Violence**
> If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu
>
> **Sexual Assault Recovery Services (SARS)**
> Student Health Care Center, 392-1161.
>
> **University Police Department** at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

> **E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.
>
> **Career Connections Center**, Reitz Union, 392-1601. Career assistance and counseling; https://career.ufl.edu.
>
> **Library Support**, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.
>
> **Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus: https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/;https://care.dso.ufl.edu.

On-Line Students Complaints: https://distance.ufl.edu/getting-help/; *https://distance.ufl.edu/state-authorization-status/#student-complaint*.