

# EML 2920 Departmental and Professional Orientation

## Spring 2020 Syllabus

Tuesdays Period 6 (12:50-1:40pm) \* NPB 1001



*Modifications to this syllabus may be required during the semester.  
Any changes to the syllabus will be posted on the course web site and announced in class.*

**Catalog Description:** Principles of mechanical & aerospace engineering practice, professional standards and ethics. Credits: 1. *Prerequisites:* Mechanical Engineering or Aerospace Engineering Major

**Instructor:** Dr. Chelsey Simmons, Office: MAE-B 222

**Office Hours:** Wednesdays 1:00-2:30pm, *Confirm timeslot at* <https://doodle.com/meetme/qc/VCQB03zcB9>

**Course eLearning:** <http://elearning.ufl.edu/> — all documents, homework, grades, etc. will be posted in UF Canvas

**Textbook:** None required

### 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 M&A 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 four modules focused on grand challenges in engineering: *Food and Water, Security, Healthcare, and Energy and the Environment.*

### Assessments

This is a graded class, and grades will be assigned based on the following individual and team deliverables.

#### Group Projects (50%)

- “Food and Water” Group Project
- “Security” Ethics Project
- “Healthcare” Ethics Project
- “Art+Engineering” Project

#### Individual Assignments and Participation (50%)

- Resume and LinkedIn Profile
- Pre-lecture reading quizzes
- Ethics test
- Other attendance-based assignments

### Attendance:

While attendance is not strictly monitored, it is extremely important that students attend class regularly. Participation, including weekly pre-lecture quizzes, does count as part of your grade. If you miss a lecture, you are responsible for finding out from a classmate what we did in class. Select material will be made available online, but not all content covered during lecture will necessarily be available online. Furthermore, students will be held responsible for knowledge of all scheduling and policy announcements made in class. If you have a documented and excusable absence for a sustained period, please contact the professor.

### Relationship of course to program and professional outcomes:

EML 2920 supports several program outcomes enumerated in the Mission Statement of the Department of Mechanical and Aerospace Engineering (MAE), especially outcomes related to ethics and professionalism.

Outcome	Coverage
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	Moderate, assessed by group projects
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	Moderate, assessed by group projects
3. An ability to communicate effectively with a range of audiences	Moderate, assessed through writing assignments and presentations
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, assessed through two comprehensive team projects and individual ethics exam
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	Moderate, assessed by peer review of performance
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	Moderate, assessed through assignments supporting extracurricular engagement

**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 (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-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. Note that failure to comply with this commitment will result in disciplinary action compliant with the UF Student Honor Code Procedures. See <http://www.dso.ufl.edu/sccr/procedures/honorcode.php>

**Accommodation for Students with Disabilities:** Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that s/he must provide to the course instructor when requesting accommodation.

**UF Counseling Services:** Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, <http://www.counseling.ufl.edu/cwc/Default.aspx>, counseling services and mental health services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.
- University Police Department 392-1111

**Software Use:** All faculty, staff and student 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 Evaluations:** Students are expected to provide feedback on the quality of instruction in this course online at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.