

Learning and Teaching in Engineering

EGS 6056 Section 21923

Class Periods: N/A (Asynchronous)

Location: Online/Canvas

Academic Term: Spring 2025

Instructor:

Dr. Jeremy A. Magruder Waisome

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Website: <https://www.eng.ufl.edu/eed/faculty-staff/jeremy-waisome/>

Office Hours: Tuesdays, 3rd Period (9:35 – 10:20 AM) and by appointment

To join virtually via Zoom [click this link](#) to join the Waiting Room

Course Description:

Learn and apply evidence-based teaching and assessment techniques. Understand how to create course content based on the student-centered learning approach to teaching. Be introduced to methods to foster an inclusive classroom environment to support diverse learners in your classroom. Develop teaching philosophy based on the principles provided through this course. (1cr).

Course Pre-Requisites / Co-Requisites:

Enrolled in a graduate-level engineering program

Course Objectives:

- Understand current practices in pedagogy in engineering
- Create a diversity statement that describes the environment they will aspire to provide to support students of various attributes, backgrounds, and beliefs
- Create measurable student learning objectives using Bloom's Taxonomy to address lower-order and higher-order thinking skills
- Apply best practices to create a functional engineering class session plan
- Plan engineering class sessions to promote student engagement and learning

Required Textbooks and Software:

- Teaching and Learning STEM: A Practical Guide
- Richard M. Felder and Rebecca Brent
- 2016, 1st edition
- ISBN 978-1118925812

Please note that there is a newer version of this book. Please be sure to purchase the 1st edition.

Recommended Materials:

- Optional recommended course materials are located in Canvas within each module. Please review these materials at your leisure.

Course Schedule:

The following course schedule provides the dates all assignments are due. It is the student's responsibility to complete the relevant course content before the due dates to inform their submissions.

Week 01: Start here: Welcome to Learning and Teaching Engineering **due 1/17/2025**

- Syllabus Quiz

Week 02: Module 01: Introduction to College Teaching **due 1/24/2025**

- Module 1 Discussion **(initial post due 1/21/2025)**
- Module 1 Intro to College Teaching Quiz
- Module 1 UF FERPA Training

Week 3: Module 02: Writing Learning Objectives **due 1/31/2025**

- Module 2 Assignment: Service Statement for Syllabus

Week 04: Module 03: Creating an Accessible and Collaborative Environment **due 2/07/2025**

- Module 3 Assignment: Writing Student Learning Objectives

Week 05: Module 04: Planning Class Sessions **due 2/14/2025**

- Module 4 Discussion **(initial post due 2/11/2025)**
- Module 4 Assignment: Comic Book Panel & Class Session Plan

Week 06: Module 05: Teaching Effectively **due 2/28/2025**

- Module 5 Assignment: Lecture Video
- Module 5 Assignment: Teaching Script

Week 07: Module 06: Writing a Teaching Philosophy **due 3/07/2025**

- Module 6 Assignment: Writing a Teaching Philosophy

Week 08: Module 07: Adopting Active Learning **due 3/14/2025**

- Module 7 Assignment: Active Learning

Week 09: Module 08: Teaching with Technology **due 3/28/2025**

- Module 8 Discussion **(initial post due 3/24/2025)**

Week 10: Module 09: Evaluating Knowledge, Skills, and Values **due 4/04/2025**

- Module 9 Assignment: Instructions and Rubric

Week 11: Module 10: Teaching Teamwork Skills **due 4/11/2025**

- Module 10 Discussion **(initial post due 04/07/2025)**

Week 12: Module 11: Enhancing Problem-Solving Skills **due 04/18/2025**

- Module 11 Learning Process Reflection

Week 13: Module 12: Teaching Professional Skills **due 04/23/2025**

- Module 12 Assignment: Professional Skills

Week 14: Module 13: Revisiting Learner-Centered Teaching **due 04/30/2025**

- Module 13 Assignment: Writing a Teaching Philosophy Revision

Online Course Recording

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Attendance Policy, Class Expectations, and Make-Up Policy

Although this is an online course, students are expected to review all material posted on the course E-Learning site (i.e., lectures, articles, videos, etc.), as scheduled, and to read their textbook in the order posted. Students are also expected to complete all quizzes, individual assignments, and discussion posts on schedule. Assignments are due by 11:59 pm EDT on the day assigned unless otherwise specified.

Students unable to complete assignments due to documented, excused absences or extenuating circumstances must contact the course instructor no less than 48 hours before a planned absence (e.g., university event, religious holiday) and no more than 48 hours after an unplanned absence (e.g., illness). Make-up opportunities will be offered for absences for which documentation is provided.

Excused absences must be consistent with university policies in the Graduate Catalog (<https://catalog.ufl.edu/graduate/regulations>) and require appropriate documentation. Additional information can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Module Assignments	100 each	30%
Discussions	100 each	20%
Quizzes	100 each	10%
Lecture and Script Assignments	100 each	20%
Teaching Philosophy and Revision Assignments	100 each	20%
		100%

An assignment is due every week.

- **8 Module Assignments** such as Completing FERPA Training, Writing a Service Statement for a Syllabus, Writing Student Learning Objectives, etc.
- **4 Discussion Assignments** where students interact with other students in the course
- **2 Lecture and Script Activities** where students write a script for an online lecture and record it
- **2 Teaching Philosophy Writing Activities** where students go through the iterative process to write their teaching philosophy statement

Grading Policy

Percent	Grade	Grade Points
94.0 - 100.0	A	4.00
90.0 - 93.9	A-	3.67
87.0 - 89.9	B+	3.33
84.0 - 86.9	B	3.00
80.0 - 83.9	B-	2.67
77.0 - 79.9	C+	2.33
74.0 - 76.9	C	2.00
70.0 - 73.9	C-	1.67
67.0 - 69.9	D+	1.33
64.0 - 66.9	D	1.00
61.0 - 63.9	D-	0.67
0 - 60.9	E	0.00

More information on UF grading policy may be found at: <http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020-grades>

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.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

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/policies/student-honor-code-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 broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. 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
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

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 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.

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.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

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 Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.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://care.dso.ufl.edu>

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>