

EGS6056 Learning and Teaching in Engineering

Instructor:

Dr. Andrea M. Goncher

andreagoncher@eng.ufl.edu

Office: 502 Nuclear Science Building

Office hours: by appointment or use the **Conversations (Inbox)** tool within Canvas

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

Recommended Materials

- None

Course Schedule

Start here: due 01/12/2020

Start Here: Welcome to Engineering Supervised Teaching

- Syllabus quiz

module 1: due 01/19/2020

Module 1: Introduction to College Teaching

- Module 1 Discussion (initial post due 01/17/2020)
- Module 1 Intro to College Teaching Quiz
- Module 1 UF FERPA Training

module 2: due 01/26/2020

Module 2: Creating an Inclusive Environment

- Module 2 Diversity, Equity, and Inclusion
- Module 2 Creating an Inclusive Environment
- Module 2 Diversity Statement for Syllabus

module 3: due 02/02/2020

Module 3: Writing Learning Objectives

- Module 3 Writing Learning Objectives

module 4: due 02/09/2020

Module 4: Planning Class Sessions

- Module 4 Discussion (initial post due 02/07/2020)

- Class Session Plan Formation

module 5: due 02/16/2020

Module 5: Teaching Effectively

- Module 5 Writing a Teaching Script
- Module 5 Lecture Video

module 6: due 02/23/2020

Module 6: Writing a Teaching Philosophy

- Module 6 Writing a Teaching Philosophy

module 7: due 03/08/2020

Module 7: Adopting Active Learning

- Module 7 Active Learning Assignment

module 8: due 03/15/2020

Module 8: Teaching with Technology

- Module 8 Social Media Activity Discussion (initial post due 03/13/2020)

module 9: due 03/22/2020

Module 9: Evaluating Knowledge, Skills, and Values

- Module 9 Assignment Instructions and Rubric

module 10: due 03/29/2020

Module 10: Teaching Teamwork Skills

- Module 10 Teamwork Reflection Discussion (initial post due 03/27/2020)

module 11: due 04/05/2020

Module 11: Enhancing Problem-Solving Skills

- Module 11 Learning Process Reflection

module 12: due 04/12/2020

Module 12: Teaching Professional Skills

- Module 12 Professional Skills Assignment

module 13: due 04/19/2020

Module 13: Revisiting Learner-Centered Teaching

- Module 13 Writing a Teaching Philosophy Revision

module 14: moving forward

- No assignments due in this module

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 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 (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation.

Evaluation of Grades

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

An assignment is due every week.

8 Module Assignments such as Completing FERPA Training, Writing a Diversity Statement for a Syllabus, Writing Student Learning Objectives, etc.

3 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 requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. 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/>.

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://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.

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: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Diversity Statement

I believe an inclusive, equity-minded environment includes access to higher- and continued education. As an instructor, I aim to develop flexible, efficient, and accessible learning environments that welcome and support diversity. Diversity can include disability, age, socioeconomic status, ethnicity, race, nationality, religion, gender identity, sexuality, and culture. I expect you to act respectfully towards others (online and in person) and to utilize differences of opinion as learning opportunities. I also want you to feel comfortable asking for reasonable accommodations so that all students can participate in this course equitably. Please consult the Disability Resource Center <https://disability.ufl.edu/>, and for further on-campus resources, refer to the following sections in this syllabus.

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 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://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

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