Instructional Design in Engineering Education
EGS6051   Class#28994
Class Periods: M4 and W3-4
Location: NSC 520
Academic Term: Spring 2024

Instructor:
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NSC 202D
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352-392-9054
Office Hours: TBD

Course Description
Introduces students to the design of instructional interventions in engineering education that are focused on facilitating students' learning. Includes how to align the content, assessment and pedagogy of these interventions guided by the premises of a learning theory.

Course Pre-Requisites / Co-Requisites
None

Course Objectives
- Develop and articulate an engineering design approach for content, assessment and pedagogy.
- Critically describe the research-based features of content, assessment and pedagogy.
- Apply the principles and theories to the design of a course, module, lesson plan, or other instructional setting.

Materials and Supply Fees
None

Required Textbooks and Software
There is no required text, as relevant topics are spread across multiple sources. Readings (book chapter, journal articles, etc.) will be assigned and posted on the course Canvas site.

Recommended Materials
None

Course Schedule

Week	Topic
Week 1 Jan 8-12	Course overview Getting to know you Introduction to the instructional design process
Week 2 Jan 15-19	Identifying the need for instruction Learning theory and instructional theory
Week 3 Jan 22-26	Learner, contextual, and task analysis
Week 4 Jan 26-Feb 2	Instructional objectives: CAP model

Week 5 Feb 5-9	Who's who in instructional design presentations (Topical presentation)
Week 6 Feb 12-16	Designing the effective instruction: Sequencing, strategies, messaging
Week 7 Feb 19-23	Developing instructional products Linking content and assessment Design considerations for technology-based instruction
Week 8 Feb 26-Mar 1	Evaluation in instructional design
Week 9 Mar 4-8	Using evaluation to enhance programs: Formative and summative evaluations
Week 10 Mar 11-15	**Spring Break – NO CLASS**
Week 11 Mar 18-22	Planning for instructional implementation Instructional design project management
Week 12 Mar 25-29	Making learning whole
Week 13 Apr 1-5	Motivation and individual differences
Week 14 Apr 8-12	Pedagogies of engagement
Week 15 Apr 15-19	Instructional design project presentations & peer review
Week 16 Apr 22-24	Instructional design project presentations & peer review

Finals Week	Final instructional design project paper due – **May 1 (Wed) 11:59pm EST**

Attendance Policy, Class Expectations, and Make-Up Policy

This class is primarily discussion-based and therefore attendance is expected. 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://gradcatalog.ufl.edu/graduate/regulations/

Students are expected to read the materials before class and be prepared to have an in-depth discussion about these readings. It is assumed that students who enroll in this class are self-motivated and sufficiently competent with computers to complete the assigned tasks independently. The assignments and discussions require the students to utilize an effective and concise technical writing style with appropriate grammar and spelling. Students are expected to be able to effectively communicate ideas in both a written and multimedia format.

Evaluation of Grades

Assignment	Percentage of Final Grade
Pre-class discussion	15%
Project activities	20%
Who's who presentation (Topical presentation)	10%
Final presentation	20%
Final instructional design project paper	30%
Self-assessment	5%

Pre-class discussion (15%)
The purpose of this assignment is for the students to reflect on the reading assignments prior to meeting in class.
Project activities (20%)
The instructional design project is the largest and most important set of activities within the course. This is a real-world instructional design project broken into several parts to make the learning experience more manageable. The following are the activities:
- Instructional design topic selection
- Instructional design report
- Needs assessment and analysis report
- Instructional objectives and activities report
- First draft of instructional materials
- Evaluation of instructional materials report (includes peer review - each student will provide a peer review of at least two other students' work)
- Lessons learned on instructional design
- Final project presentation slides

Topical presentation (10%)
Each student will give a 5-minute presentation on a scholar of instructional design that interests them. Topics will be identified and approved by the instructor ahead of time.
Final project paper (30%)
There are three components to the paper assignment:
- Draft paper: 5 points; Full credit for turning in a draft. Due: April 17th
- Peer review: 10 points; Each student will provide a peer review of two other draft papers. Due April 24th
- Final paper: 15 points, Due May 1st

Course self-assessment (5%)
You will provide a grade for yourself for the course, along with a justification for that grade.

Grading Policy

Percent	Grade	Grade Points
93.0 - 100	A	4.00
90.0 – 92.9	A-	3.67
87.0 - 89.9	B+	3.33
84.0 - 86.9	B	3.00
81.0 - 83.9	B-	2.67
78.0 - 80.9	C+	2.33
75.0 - 77.9	C	2.00
72.0 - 74.9	C-	1.67
69.0 - 71.9	D+	1.33
66.0 - 68.9	D	1.00
63.0 - 65.9	D-	0.67
0 - 62.9	E	0.00

More information on UF grading policy may be found at:
UF Graduate Catalog
Grades and Grading Policies

Communication Policy
- This course will use Canvas as a Learning Management System. All questions related to the course materials and activities should be sent via Canvas messaging (preferred) or e-mailed to gloriakim@ufl.edu. When emailing the instructor, you must include your full name, the course you are enrolled in, and a clear description of the matter. Please use your official UF email account for all communication with the instructor.
- The instructor reserves the right to not answer email messages sent from non-UF email accounts such as Yahoo, Hotmail or Gmail.
- Students can meet with the course instructor during regular office hours or by appointment.
- Instructor Response Time: Please allow 24-48 hours for the instructor to respond to your messages/emails. Messages/emails sent during weekends may not be responded until the following week.

Netiquette
All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and synchronous chats. Netiquette for online students can be found at https://www.cise.ufl.edu/wp-content/uploads/2019/08/CISE_Netiquette_Guide.pdf

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 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.

Counseling and Wellness Center: https://counseling.ufl.edu, 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 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.*