Educational Learning Methods for BME Learning Assistants

BME4931   Class 28269
Class Periods: F | P7 3:00 – 3:50pm
Location: HPNP 1101
Academic Term: Spring 2024

Instructor:
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Course Description
1 credit course – This course is the mandatory pedagogy course of the Learning Assistant (LA) Program in the department of Biomedical Engineering. Undergraduate students who serve as an LA in a BME LA-supported course must enroll in this course. The course trains LAs to integrate educational learning methods into core BME courses.

Course Pre-Requisites
Undergraduate students must have been matched to a BME LA-supported course. More detail about the BME-LA Program and the application process can be found on the BME-LA handbook website.

Course Goals:
The pedagogy course serves as a condensed personal development training in which LAs acquire knowledge of college-level, collaborative pedagogy techniques that help them 1) learn about and recognize Kolb's learning cycle 2) learn about metacognition, questioning techniques, and cognitive engagement 3) learning techniques and their utility 3) understand team formation, team dynamics, and engagement 4) learn about asset vs. deficit-based models a, 5)acquire communication, inclusivity and anti-racism skills that shall increase student engagement, 6) get introduced to and possibly participate in engineering education research.

Learning Objectives:
Upon completion of the course, LAs are expected to:
- Expand the LA's learning toolkit by exploring research-based pedagogical strategies, like learning theories, learning techniques and their utility, cognitive engagement, metacognition, asset vs. deficit learning models, and team formation and dynamics.
- Transform the LA's communication skills to be more constructive and supportive by learning the art of listening and questioning and how to guide students to the answer without providing the solution.
- Strengthen the LA's leadership skills through the apprenticeship model of the LA program and by applying different bridging techniques with the students. LAs practice the following scenario: Where do I want my students to get to and when?

What do the students know/don't know now? How can we help them fill the gap and get there?
- Learn how to identify and actively remedy forms of implicit bias and racism in the classroom and help promote diversity, equity, and inclusivity.

Materials and Supply Fees: None

Relation to Program Outcomes (ABET):

ABET Outcome	Coverage*
1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	
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	High - Introduced
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	
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	
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	High - Introduced

Recommended Material
Resources and supplemental reading will be provided by the instructor on Canvas (Files/Resources).

Tentative Course Schedule

Week#	Week of	Topic
1	01/08	Introduction and course expectations
2	01/15	Implicit bias, Inclusivity, and "safe spaces"
3	01/22	Inclusive Questioning techniques and LAA#1 development
4	0129	Learning Theory (Kolb's cycle)
5	02/05	Learning Techniques and their utility + LAA#2 development
6	02/12	LAA#2 development
7	02/19	Metacognition and SRL + LAA #3 development
8	02/26	**LA – team meeting**
9	03/04	**No Class**
10	03/11	**No Class**
11	03/18	Cognitive Engagement + LAA #4
12	03/25	Cooperative Learning (Team formation, dynamics & engagement) 1
13	04/01	Cooperative Learning (Team formation, dynamics & engagement) 2

14	04/08	End-of-semester discussion
15	04/15	**LA – team meeting**

LA = Learning Assistant , LAA = Learning Activity Assignment

Attendance and Participation:

Students are expected to attend the weekly course meeting and engage in discussions about the assigned reading material. Attendance is monitored through the attendance assignment on Canvas and is **worth 5 points per week**. Students can miss no more than **four** class meetings with a legitimate excuse as per University policy. Missing more than **four** class meetings will result in a failing grade. Furthermore, excused absences must be consistent with university policies in the undergraduate catalog and require appropriate documentation. Students are responsible for making up the material or activities covered in their absence. After due warning, the instructor has the right to prohibit further attendance and subsequently assign a failing grade for excessive absences. More information can be found in the undergraduate catalog.

Absence due to religious observances: Students are excused from class or other scheduled academic activity to observe a religious holy day of their faith, upon prior notification to their instructors. Students will be permitted a reasonable amount of time to make up the material or activities covered in their absence and will not be penalized because of the religious observances. I will do my best to keep religious holidays in mind while scheduling major academic events. Please notify me if you think I have overseen a religious holiday. No documentation is required to prove the religious observance. Furthermore, a student who believes that he or she has been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Punctuality: Students are expected to arrive on time for class. Late arrivals (beyond 10 minutes) will affect the attendance grade. Class will start and be dismissed on time.

Class expectations:

The class will follow a reading group format where students must complete a reading assignment (one or more research articles) before coming to class. Preparing for the class is **mandatory** as the class will be very interactive and relies primarily on your participation. **Unprepared attendance will cause 50% deduction of the attendance grade (see attendance section)**. In each class, we will discuss and share our thoughts about the article and brainstorm ideas to implement new learning techniques in the BME LA-supported classroom. So, bring your best self to class to ensure a great learning experience. Keep up with the pace and always ask questions. If you feel like you are falling behind, raise your hand and notify the instructor immediately. Having a bad day in general, drop me a Canvas note (see Health and Rest section).

Communication Policy:

Communication is a cornerstone of the success of the student's learning experience. Hence, to ensure a message doesn't get lost and to receive a timely response, all correspondence to/from the instructor and TA should be made via Canvas messages. All important dates, tips, and announcements will be made through Canvas. Students are fully responsible for

every piece of information on Canvas and must check it regularly for updates (turn on notifications).

Class Material:
Research Articles:
All reading material will be made available to the students on Canvas. Articles will be assigned on weekly basis.
Assignments: Will be available and submitted via Canvas. Late submissions, within 48 hours of the deadline, will be allowed 80% of the full points. Homework received 48 hours past the deadline will be allowed 50% of the full points. Submission integrity (correct file, extension, and format) is the responsibility of the student. Always view your submission after you submit!

Evaluation of Grades:
"You are not defined by your grade, but by your effort and morals" ~Dr. Mansy
Assignments are educational tools to evaluate and assess the learning objectives listed above. This *happens* to result in a grade. As such, asking questions and seeking help early on can significantly improve the outcome.

Assignment	% of Final Grade	Objective
Participation	10%	Ensure attendance and engagement in class discussion
Reflection [x4] and self-assessments [x2]	40%	Assess your abilities as a learner
Appraise/Critique the techniques suggested in the research article
Describe implementation ideas
Report implementation results
Learning Activity development and implementation [x4]	50%	Develop in-class activities to explore/test a new learning concept
Total	100%	Overall class performance

Grading Policy:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
%	≥95	94-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	< 60

Most assignments will be graded for completion. An aggregate percentage of 70% is required for a passing grade. More information on UF grading policy may be found at
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Class Ethics:
- Collaboration or teamwork in class discussions is absolutely encouraged, but each student must make individual submissions of their own work/reflection.
- Plagiarism, the act of verbatim copying of text, figures, and/or images (essentially anything) from the web without proper citation or paraphrasing, is strictly prohibited. Plagiarism is a common infraction to the UF Honor Code. If you are confused as to what

constitutes plagiarism, see here: https://guides.uflib.ufl.edu/copyright/plagiarism . Also, note that copying solutions for any assignment, regardless of the source (e.g., other students' notes, instructor-provided solutions on Canvas, pirated website solutions, blogs, forums…etc.), will be treated as plagiarism. Turnitin will be enabled randomly, and students will be notified of any detected plagiarism.
<u>Any violations of the above, or attempts thereof, will be immediately reported to the Dean of Students as a UF Student Honor Code violation</u>

Students Requiring Accommodations
No one is perfect, and we all have something we struggle with. If you are aware of a particular difficulty, please do the following:
1. Register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation.
2. Email mmansy@bme.ufl.edu your accommodation letter, along with any additional information and set up an appointment to discuss your needs with the instructor.
3. Register for the tests through the DRC to ensure testing accommodations are met.
<u>* This should be done as early as possible in the semester ***</u>**

Should you, however, feel the need for accommodation at any other point in the semester, please do not hesitate to contact the instructor immediately. This can manifest in various forms, so inform the instructor of any sudden changes you experience regarding the class (see Communication Policy).

Course Evaluation
I'm personally committed to improving your learning experience. I, therefore, value and appreciate all forms of constructive feedback (positive and negative) at ANY time during the semester. Help me help you!
End of the term course evaluations are mandatory. 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/.

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, Inclusive and Anti-racist Learning Environment

I, personally, strive for an anti-racist, inclusive, and supportive classroom that welcomes every student. 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, therefore, expected that every person in this class will treat one another with dignity and respect regardless of race, ethnicity, religion, gender, sexuality, disability, age, socioeconomic status, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind (implicit or explicit), please contact your instructor (mmansy@bme.ufl.edu) 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

• 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

Furthermore, you are allowed to change your "Display Name" on Canvas to match your personal preference. To update your display name, you must go to one.uf.edu. Click the dropdown arrow next to your profile icon in the top right corner then click Directory profile. There you can edit your Display name. It may take a business day for the update to reflect in Canvas.

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

Health and Rest:

Your academic success relies on your combined physical, mental, and emotional health. Take care of your health by dedicating at least (bare minimum) 1 hour per week to exercise and 6-8 hours per day to sleep. Please speak to the instructor if you feel drained or exhausted or reach out to the many resources available on campus (see Resources section).

UF Student Success:

For improving study skills to connecting with a peer tutor, peer mentor, success coach, academic advisor, and wellness resources, go to http://studentsuccess.ufl.edu

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

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