Introduction to Electrical & Computer Engineering
EEL 3000   Section 12216
Class Periods: Friday, Periods 2 & 3, 8:30 am – 10:25 am
Location: Pugh Hall, Room 170
Academic Term: Spring 2020

Instructor:

	Prof. Henry Zmuda
	hzmuda@ufl.edu
Office:	235 Larsen Hall
Office Phone Number:	(352) 392 – 0990

Mobile Phone Number (text me anytime, voice calls for emergencies only please):

	(850) 225 – 9200
Office Hours:	TBA, always by chance or appointment

Teaching Assistant: Please contact through the Canvas website

	Bhavana Subramanian
	Email: bsubramanian@ufl.edu
Office location:	NEB 213 (IEEE Office)
Office hours:	TBA

Course Description
(2 credits) Introduces electrical and computer engineering tools, both hardware and software. Professional ethics, career development. Assemble and test hardware project to provide hands-on experience.

Course Pre-Requisites / Co-Requisites: None

Course Objectives: Learn about the Electrical and Computer Engineering profession, particularly the differences in sub-fields. Explore career opportunities and how to prepare for them, and become aware of the tools and resources used in industry. Demonstrate the ability to communicate effectively and knowledge of professional issues such as ethics, contemporary issues, and continuing education.

Materials and Supply Fees: None

Professional Component (ABET):
State the contribution of the course to meeting the professional components of the ABET-accredited degree.

Relation to Program Outcomes (ABET):
The table below is an example. Please consult with your department's ABET coordinator when filling this out.

Outcome	Coverage[*]
1. An ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics.	
2. An ability to apply both analysis and synthesis in the engineering design process, resulting in designs that meet desired needs.	
3. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	
4. An ability to communicate effectively with a range of audiences	High

5. 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	
6. An ability to recognize the ongoing need for additional knowledge and locate, evaluate, integrate, and apply this knowledge appropriately.	High	
7. An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty	Medium	

*Coverage is given as high, medium, or low. An empty box indicates that this outcome is not covered or assessed in the course.

Required Textbooks and Software: None
Access to MATLAB (available free through ECE Department VPN)

Recommended Materials
Access to MATLAB is required (available free through ECE Department VPN)

Course Schedule
Week 1: Overview of Course, Learning Styles
Week 2: Representatives from ECE and College of Engineering Student Services
Week 3: Introduction to MATLAB Programming
Week 4: Introduction to the Arduino Processor
Week 5: Engineering Career Development
Week 6: Engineering Professionalism
Week 7: Engineering Ethics
Week 8: Engineering Innovation and Entrepreneurship
Week 9: Intellectual Property and Patent Law
Week 10: Computer Engineering Area Overview
Week 11: Signals and Systems Area overview
Week 12: Electronics Area Overview
Week 13: Devices Area Overview
Week 14: Electromagnetics Area Overview
Week 15: Final Matlab/Arduino Quiz

Attendance Policy, Class Expectations, and Make-Up Policy

Attendance is required and is monitored electronically via i-clicker. The attendance app will remain open for you to sign in from 8:15 am to 8:40 am. You will not be able to sign in after 8:40 am and will be marked absent. You must arrive for class on time. The i-Clicker app is location sensitive, so attempts to sign-in from outside the classroom will be detected and indicated as such. You must be physically present in the room to be marked present for the class. **You MUST remember to sign in. Forgetting to sign in is not an acceptable excuse. The app will not let you sign in after 8:41!** The attendance app will be manually run a second time during class if students are seen leaving early. Students arriving after 8:40 pm will be marked as absent. You **may** be given partial credit for attendance if a valid, verifiable excuse is provided. Students seeking partial credit for attendance must see the instructor during scheduled office hours to resolve the issue. Attendance is not taken the first day of class. One (1) unexcused absence is allowed. **Students may not leave early from class unless approved in advance**. Any abuse of the attendance system (e.g., signing in and leaving early) is interpreted as "cheating" on the attendance and will be considered an offence of the UF Honor Code and reported to the Dean of Students Office.

As a matter of courtesy and respect for presenters, **electronic devices** (e.g., laptops, tablets, phones, etc.) **are to be put away and NOT used during class unless instructed to so as part of the class.** Any student violating this policy will be marked absent for that class at the instructor's discretion. Students who take notes using an electronic device (e.g. tablet, laptop) must sit in the first two rows of the classroom. **All students must post a recognizable photograph of their face on the Canvas page. An attendance grade will not be issued unless an appropriate photograph is posted.**

Make-up Work

Makeup work is contingent on appropriate justifications and legal documents (UF Dean of Students, certified physician, military active duty, jury duty, etc.)

Since the class consists mainly of guest speakers, some make-up classes are not possible.

If a MATLAB assignment is missed (including the final quiz) for legitimate reasons (UF Dean of Students, certified physician, military active duty, jury duty, etc.) the make-up will consist of a project, possibly of greater difficulty than the original assignment.

Policy on Late Submissions

Assignment submissions are due by 11:59 pm of the assigned due date. Late assignments will receive a 50% deduction in grade for first day late (submitted within 24 hours of the due date), a 75% deduction in grade for second day late (submitted within 48 hours of due date). No assignments will be accepted (no credit given) after 48 hours. Assignments are submitted electronically by uploading them onto Canvas. Late projects (i.e., Siren Kit) are treated the same as late written assignments. Excused late submissions MUST be approved by the instructor in advance.

Excused absences must be consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.

Evaluation of Grades

Assignment	Total Points	Percentage of Final Grade
Attendance (with photo)	1 each	25%
Essays (4)	10 each	20%
Electronic Kits/Projects (2)	10	15%
MATLAB Assignments (3)	10	20%
Final Exam	100	20%
		100%

Grading Policy

Numeric Cutoff	Letter Grade	Grade Points
≥ 93	A	4.00
≥ 90	A-	3.67
≥ 87	B+	3.33
≥ 83	B	3.00
≥ 80	B-	2.67
≥ 77	C+	2.33
≥ 73	C	2.00
≥ 70	C-	1.67
≥ 67	D+	1.33
≥ 63	D	1.00
≥ 60	D-	0.67

< 60	E	0.0

More information on UF grading policy may be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

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 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 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
• 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:

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/.

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.