

## EEL 3000: Introduction to Electrical & Computer Engineering

Updated 12/19/18

### Syllabus – Spring 2019

**Instructor:** Dr. Henry Zmuda  
[zmuda@ece.ufl.edu](mailto:zmuda@ece.ufl.edu)  
(352) 392 – 0990 (office)  
(850) 225 – 9200 (mobile – voice calls for emergencies only please, but you can text me anytime.)  
Office: 235 Larsen Hall

**Office hours:** TBD – Always available by appointment – just send me an email or text me anytime if you'd like to schedule a time.

**TA:** Aamir Rahim  
[arahim306@ufl.edu](mailto:arahim306@ufl.edu)  
Office: NEB 213 (IEEE Office)

**Office hours:** TBD

**Class Meeting:** Wednesday periods 8<sup>nd</sup> and 9<sup>rd</sup> (3:00 – 4:55), Room: Williamson Hall, Room 0100.

**Catalog 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.

**Pre-requisites:** None

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

**Textbook Required:** None

**Software Required:** Access to MATLAB (free version available through UF Apps)

**Grading:** Attendance – 25%  
Assignments:  
MATLAB (3) – 20%  
Essay assignments (4)– 20%  
Electronic kits/projects – 15%  
Exams – MATLAB Quiz 20%

## Grading Scale:

Numeric Cutoff	Letter Grade	Grade Points
≥ 90.00	A	4.00
≥ 86.67	A-	3.67
≥ 83.33	B+	3.33
≥ 80.00	B	3.00
≥ 76.67	B-	2.67
≥ 73.33	C+	2.33
≥ 70.00	C	2.00
≥ 66.67	C-	1.67
≥ 63.33	D+	1.33
≥ 60.00	D	1.00
≥ 56.67	D-	0.67
< 56.67	E	0.0

**There is zero tolerance for academic dishonesty of any sort. Any suspected infraction will be reported to the Dean of Students Office.**

**Classroom Policy:** 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 do so as part of the class.** Any student violating this policy may be marked absent for that class at the instructor's discretion.

Students who would like to take notes using an electronic device (e.g., tablet or laptop) must sit in the first two rows of the classroom.

### **Make-up Work and Attendance Policy**

Attendance is not taken the first day of class (add/drop week).

One (1) unexcused absence is allowed.

Excused absences **MUST** be approved in advance by the instructor.

**Students may not depart early from class unless the reason for leaving early is approved in advance.** Leaving early is interpreted as “cheating” on the attendance and will be handled as an infraction of the UF Code of Honor. See the **University Honesty Policy** below.

**Attendance will be taken electronically using i-clicker.** You must install the i-clicker app on your phone or computer.

To create an account, follow the instructions on:

<https://macmillan.force.com/iclicker/s/article/Checklist-Getting-Started-with-iClicker-Reef>

The Course ID is: **Introduction to ECE**

The attendance app will remain open for you to sign in from 3:00 to 3:10 pm. You will not be able to sign in after 3:10 pm and will be marked absent. **You must arrive for class on time.**

The i-Clicker app is location sensitive. You must be physically present in the classroom to be marked present for the class. The i-Clicker app identifies sign-ins from locations that are outside the classroom, and this does not count toward attendance.

The attendance may be taken a second time before class ends if students are seen leaving class early.

### **Make-up Work**

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

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

If the final MATLAB/Arduino quiz is missed for legitimate reasons (excused by UF Dean of Students, certified physician excuse, military active duty, service for jury duty, etc.) The make-up quiz will consist of a project and may be of greater difficulty than the original quiz.

### **Policy on Late Submissions**

Assignment submissions are due by 11:59 pm on the assigned due date. Late assignments will receive a 25% deduction for first day late (submitted within 24 hours of due date), a 50% deduction for second day late (submitted within 48 hours of due date). No assignments accepted if more than 48 hours late.

Should there be an extenuating circumstance that results in a late submission you must notify the instructor as soon as possible, otherwise the standard late submission policy applies.

### **Course Outline** (see schedule for dates)

#### **I. Introduction**

- Overview of course - syllabus, class Website on Canvas

#### **II. What is Electrical and Computer Engineering?**

- Representatives from ECE and College of Engineering Student Services
- Representative from ECE Technical Support
- Career Development
- Overview of EE curriculum and CE programs
- ECE areas in department (faculty guest speakers)
- Undergraduate curriculum
- Grad school and research in ECE
- What are the career opportunities?

- Student and alumni perspectives
- ECE student leaders; IEEE, WECE
- Invited alumni speakers

### **III. MATLAB**

- Tutorial and three homework assignments.

### **IV. Electronic Kits & Arduino Project**

- Construct a European Siren – really an exercise in learning how to solder
- Arduino microprocessor project

### **V. Learning to Write Concisely and Well**

- Four short writing assignments to develop lifelong skills.
- Ethics essay used in determination of Sias Award

### **VI. Ethical issues for engineers**

- Student honor code, case examples
- IEEE code of ethics, case examples
- Ethical Issues - patents, copyrights

### **VII. Other topics**

- Finding a job, career choices
- Career Resource Center (guest speaker)
- Interns, co-ops, jobs, interview skills
- Documentation, patents, copyrights
- Industry trends

### **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.

### **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/>.

### **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>

### **Campus Resources:**

*Health and Wellness*

### **U Matter, We Care:**

If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392-1575 so that a team member can reach out to the student.

**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](mailto: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](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf). **On-Line Students Complaints:** <http://www.distance.ufl.edu/student-complaint-process>.