

EEL 6686 - Embedded Systems Seminar – Spring 2019

General Information

Time: Tuesday 5:10-6, Thursday 5:10-6:50 Location: MAEA 327

Instructor: Ann Gordon-Ross

Email: Via Canvas email only

Office: 319 Benton Hall

Office Hours: By appointment only

Catalog Description

(3 credit hours) An embedded system is any computing system other than a traditional computer system. Examples include set-top boxes, digital cameras, alarm systems, automotive systems, aerospace systems, and cell phones. This course is structured as a seminar course and will review cutting-edge publications with student presentations.

Prerequisites

- Computer Architecture
- Digital logic design
- Basic UNIX/LINUX OS and compiler knowledge
- Programming experience with C and/or C++
- Assembly language

Course Objectives

This course will cover a wide variety of design issues for embedded system. The course will be taught as a seminar course, where students will read several state of the art conference/journal papers per week and lectures will consist of student presentations covering these papers. Semesters with large enrollment will require students to pre-record and submit some presentations and/or work in groups

Textbook and Materials

There is no required textbook. Readings will consist of conference/journal papers as selected by you for presentation. Papers will be uploaded throughout the semester.

Excellent programming references:

- C++ How to Program - Great beginner/intermediate C++ programming guide
- The C++ Programming Language - Written by the creator of the C++ programming language, Bjarne Stroustrup. This book is an excellent book and is highly advanced -- a must for any serious C++ programmer

Grading

The course is divided into three graded components, combined as a weighted sum to total 100%:

- 45% - Tests (not cumulative)
 - 15% - Midterm 1
 - 15% - Midterm 2
 - 15% - Midterm 3
- 15% - Class Participation
- 40% - Class Presentations (tentative pending final enrollment)
 - 30% - Two long presentations, 40 minutes each
 - 10% - One short presentation, 20 minutes

Letter grades will be assigned roughly according to the standard 90/80/70/60 scale out of 100 percentage points overall, with a 90 and above corresponding to an A, 80 and above to a B, 70 and above to a C, 60 and above to a D, and less than 60 to an F. +/- grades will also be given where appropriate and available, with approximate dividing lines at the upper and lower 3% of a grade area (e.g., 87% to 89.999% is a B+; 80% to 83% is a B-). Students are not competing against one another, but rather against this scale -- all students can get good grades if all do well. I may scale ("curve") an individual item **ONLY** if it **HELPS** the class and I feel that scaling is appropriate given the circumstances. In order to graduate, graduate students must have an overall GPA and an upper-division GPA of 3.0 or better (B or better). Note: a B- average is equivalent to a GPA of 2.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies.

Absolutely **no** late work is accepted. Regrades must be submitted within one week of returned materials.

Academic Integrity and Collaboration Policy

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others. Please be aware that I am very strict about cheating and any infraction may result in failure in the course.

Attendance

Attendance is compulsory, and class participation is a portion of your grade. You are expected to attend class and provide constructive feedback on your peers' presentations, as they will be giving you constructive feedback. Another portion of your grade includes your presentation skills, knowledge transfer, and development, and these skills can only be refined by attending class and participating in the discussions.

Cell phones

Please remember to turn your phones off during lecture. Absolutely no phone conversations can take place during lecture. It is distracting to both the students and to me.

Communication with the instructor and/or TAs

All emails involving this course must be sent via Canvas. Any email sent to an instructor/TAs personal email account (campus or otherwise) will be ignored. Please try to be professional and use reasonable grammar and formatting.

Make-up Exam Policy

Missed exams cannot be made up except in the case of a documented medical emergency. Absolutely no late work is accepted. Regrades must be submitted within one week of returned materials.

Accommodation for Students with Disabilities

Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation
UF Counseling Services

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
- Career Resource Center, Reitz Union, 392-1601, career and job search services.

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 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