EEL 4924C  Electrical and Computer Engineering Design 2

1. Catalog Description – (3 credits) Selected design projects involving engineering applications in the various areas of electrical engineering. Must be taken prior to the semester of graduation. Laboratory.

2. Pre-requisites – EEL 3923C

3. Course Objectives - To provide the framework for specification of a design problem in a written design proposal, communication and discussion of design progress at oral project briefing meetings at weekly intervals, documentation of technical approaches in a patent style notebook checked and signed at weekly intervals, and demonstration, presentation, and written documentation of the completed design project.

4. Contribution of course to meeting the professional component (ABET only – undergraduate courses) - 3 credits of Engineering Design

5. Relationship of course to program outcomes: Skills student will develop in this course (ABET only undergraduate courses) - EE2, b, c, d, e, f, g, h, i, j

6. Instructor – Dr. Erik Schwartz
   a. Office location: 321 MAE-B
   b. Telephone: 392-2541
   c. E-mail address: ems@mil.ufl.edu
   d. Class Web site: http://mil.ufl.edu/4924/
   e. Office hours:

7. Teaching Assistant -
   a. Office location:
   b. Telephone:
   c. E-mail address:
   d. Office hours:

8. Meeting Times – T 4th, R 4th-5th

9. Class/laboratory schedule - 3 class periods consisting of 50 minutes each

10. Meeting Location – Lectures: 101 NEB, Labs: 212 NEB

11. Material and Supply Fees - $113.05

12. Textbooks and Software Required - None
   a. Title:
   b. Author:
   c. Publication date and edition:
d. ISBN number:

13. Recommended Reading - None
   a. Title:
   b. Author:
   c. Publication date and edition:
   d. ISBN number:

14. Course Outline – This is a partial list of class events
   Group and Project Selection – 2 members per group
   Project Selection Abstract Due (Preliminary Project Proposal)
   Preliminary Design Reports Due
   Preliminary Design Presentations (held during class)
   Guest Lectures – Generally given by class faculty or guests.
   Attendance is mandatory unless you have already seen the presentation in
   Junior Design.
      o Microcontrollers (e.g., Atmel’s AVR, Microchip’s PIC, TI’s MSP430)
      o Demos on: Soldering, Digital Scope, LSA, NI’s LabView, X-Bee
      o Printed circuit board design (layout and routing) software (National
        Instrument’s Ultiboard)
      o Intellectual Property
      o Career Resource Center
   Intermediate Design Reviews (Hardware and Software)
   Periodic In-lab Presentations
   Final Design Report Due Along with Final Project Presentation/Demo
   Demo and Poster Session

15. Attendance and Expectations - This is a short list of expectations: Turn off all cell
    phones, beepers, laptop sound effects, and other noise making devices before
    entering our classroom. If a noisemaking device goes off during class, I reserve the
    right to lower your course grade. If a noise-making device goes off during an exam,
    your will lose a significant number of points on this exam. No text messaging during
    class or exams. No eating or drinking in the lab, No development boards or Arduino
    devices can be used in your final project without written approval from the instructor,
    All projects must have significant digital, analog, and software component unless
    written approval is given by the instructor, Attendance at some classes and labs are
    required, No breadboards (also known as protoboards) can be used in your final
    project
Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

16. Grading – Grades are determined by the quality of work with 10 specific course requirements. In order to pass the class (and graduate) students must finish their design projects and show a working demonstration.

17. Grading Scale (e.g., 90-100 A, 85-89 B+, 80-84 B, etc.) If grades are to be curved, so state. Values should not overlap and the full grade to percentage/points map must be included. –
   A: 93-100
   A-: 90-92
   B+: 87-89
   B: 83-86
   B-: 80-82
   C+: 77-79
   C: 73-76
   C-: 70-72
   D+: 67-69
   D: 63-66
   D-: 60-62
   E: 0-59

“A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. For more information on grades and grading policies, please visit: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

18. Make-Up Exam Policy - If you have a University-approved excuse and arrange for it in advance, or in case of documented emergency, a make-up exam will be allowed and arrangements can be made for making up missed work. University attendance policies can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Otherwise, make-up exams will be considered only in extraordinary cases, and must be taken before the scheduled exam. The student must submit a written petition to the instructor two weeks prior to the scheduled exam and the instructor must approve the petition.

19. Honesty 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.

“…failure to comply with this commitment will result in disciplinary action compliant with the UF Student Honor Code Procedures (http://www.dso.ufl.edu/sccr/procedures/honorcode.php)

20. 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.

21. 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.

22. Software Use – All faculty, staff and student 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.