EEL 3834 Programming for Electrical and Computer Engineers

1. Catalog Description – (3 credits) Develop computer skills and the art of writing good computer programs. Examples and exercises relevant to Electrical and Computer Engineering are used.

2. Pre-requisites and Co-requisites – None

3. Course Objectives - To implement and debug solutions to programming problems using C++; to use problem solving techniques to understand, formulate, and/or apply basic algorithms involving control flow constructs, functions, classes, and data structures.

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, a, d, e, k

6. Instructor – Dr. Paolo Zicari
   a. Office location: 317 Larsen
   b. Telephone:
   c. E-mail address: zicari@hcs.ufl.edu
   d. Class Web site:
   e. Office hours: TBD

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

8. Meeting Times – Monday, Wednesday, Friday, 3rd Period

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

10. Meeting Location – 303 MAE-A

11. Material and Supply Fees - None

12. Textbooks and Software Required -
   a. Title: Absolute C++
   b. Author: Walter Savitch
   c. Publication date and edition: 2010
   d. ISBN number: 978-0-13-608381-8
13. Recommended Reading -
   a. Title: Professional C++
   b. Author: Marc G Gregoire, Nicholas A. Solter, Scott J. Kleper
   c. Publication date and edition: 2011, 2nd edition
   d. ISBN number: 978-0470932445

14. Course Outline –
   Introduction to problems solving and software engineering
   Data types, expressions and assignments, console program I/O
   Conditional statements: if, else, switch, nesting
   Loops: while, do-while, for, break, continue, nesting
   Functions: prototypes, passing-by-value, passing-by-reference, scope, overloading
   Recursive functions
   Files and streams (text mode only)
   Arrays: searching and sorting arrays, multidimensional arrays
   Strings and character manipulation
   Introduction to pointers
   Dynamic arrays
   Classes and inheritance
   Polymorphism and virtual functions
   Templates
   Data structures

15. Attendance and Expectations - Attendance is expected. Cell phones and other electronic devices are to be silenced. No text messaging during class or exams.

   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 – Exam 1: 30%, Exam 2: 30%, Final: 40%

17. Grading Scale –

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   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.