The University of Texas at Tyler
Department of Electrical Engineering

EENG 2201: Programming for Engineers (required)

Syllabus

Catalog Description:

Introduction to C Programming; Structured Program Development in C, Program Control; C Functions, Arrays. Pointers, Characters and Strings, Formatted Input/Output; C Structures, Unions, Bit Manipulations and Enumerations; File Processing; Data Structures; Preprocessor; Introduction to object-oriented programming in C++ and JAVA; Engineering Application Examples. Two hours of lecture with integrated lab. 2 credit hours.

Prerequisites:	Calculus I (MATH 2413)
Credits:	2 (2 hours lecture, 0 hours laboratory per week)
Text(s):	Deitel & Deitel, **C How To Program, 5th ed**., Prentice Hall, 2007. ISBN: 0-13-240216-8
Additional Material:	None
Course Coordinator:	Daron Walls, Adjunct Instructor

Topics Covered: (paragraph of topics separated by semicolons)

Introduction to C Programming; Structured Program Development in C, Program Control; C Functions, Arrays. Pointers, Characters and Strings, Formatted Input/Output; C Structures, Unions, Bit Manipulations and Enumerations; File Processing; Data Structures; Preprocessor; Introduction to object-oriented programming in C++ and JAVA.

Evaluation Methods: (only items in dark print apply)

1. Examinations / Quizzes
2. Homework
3. Report
4. Computer Programming
5. Project
6. Presentation
7. Course Participation
8. Peer Review

Course Objectives[1]:

By the end of this course students will be able to:

1. apply the structured programming approach to software development. [1-4, 7]
2. design programs in the C language by utilizing different data types, control statements, functions and standard libraries. [1-4]
3. perform formatted input/output of data to files and devices like the keyboard and the computer screen. [1-4, 7]
4. demonstrate data manipulation using arrays, pointers, strings, structures and unions. [1-4, 7]

[1] *Numbers in brackets refer to method(s) used to evaluate the course objective.*

Relationship to Program Outcomes[2]: (only items in dark print apply)

This course supports the following Electrical Engineering Program Outcomes, which state that our students will:

1. have the ability to apply knowledge of the fundamentals of mathematics, science, and engineering; [1-4]
2. have the ability to use modern engineering tools and techniques in the practice of electrical engineering; [1-4]
3. have the ability to analyze electrical circuits, devices, and systems;
4. have the ability to design electrical circuits, devices, and systems to meet application requirements;
5. have the ability to design and conduct experiments, and analyze and interpret experimental results;
6. have the ability to identify, formulate, and solve problems in the practice of electrical engineering using appropriate theoretical and experimental methods;
7. have effective written, visual, and oral communication skills;
8. possess an educational background to understand the global context in which engineering is practiced, including:
   a. knowledge of contemporary issues related to science and engineering;
   b. the impact of engineering on society;
   c. the role of ethics in the practice of engineering;
9. have the ability to contribute effectively as members of multi-disciplinary engineering teams;
10. have a recognition of the need for and ability to pursue continued learning throughout their professional careers.

[2]Numbers in brackets refer to course objective(s) that address the Program Outcome.

Contribution to Meeting Professional Component: (in semester hours)

Mathematics and Basic Sciences:		hours
Engineering Sciences and Design:	2	hours
General Education Component:		hours

Grade Replacement:

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to file an intent to use grade forgiveness will result in both the original and repeated grade being used to calculate your overall grape point average. A student will receive grade forgiveness (grade replacement) for only three (undergraduate student) or two (graduate student) course repeats during his/her career at UT Tyler. (2006-08 Catalog, p. 35)

Disability Services:

If you have a disability, including a learning disability, for which you request disability support services/accommodation(s), please contact Ida MacDonald in the Disability Support Services office so that the appropriate arrangements may be made. In accordance with federal law, a student requesting disability support services/accommodation(s) must provide appropriate documentation of his/her disability to the Disability Support Services counselor. For more information, call or visit the Student Services Center located in the University Center, Room 282. The telephone number is 566-7079 (TDD 565-5579).
Additional information may also be obtained at the following UT Tyler Web address: http://www.uttyler.edu/disabilityservices.

Prepared By: Daron Walls, Adjunct Instructor Date: 26-August-2007