University of Texas at El Paso
Electrical and Computer Engineering Department
EE2372 Software Design I
Fall 2016

INSTRUCTOR:	Arka Talukdar
OFFICE:	ENG Bld E 319(UNIX Lab) office E
EMAIL:	atalukdar@utep.edu
OFFICE HOURS:	TR 11:15 AM-12:45 PM or by appointment
TEXT book suggestion :	Programming in C by Stephen G. Kochan C How To Program by Paul Deitel and Harvey Deitel (7th Edition) GNU/Linux Application Programming by M. Tim Jones (2nd Edition) Linux Pocket Guide by Daniel J. Barrett (2nd Edition)

Pre-requisites: EE 1305 with a grade of "C" or better

Course Description:

An introduction to software design with a structured computer language that focuses on the construction of programs consisting of multiple functions residing in multiple files. Covers program creation and top-down-design, basic elements and operations, modular program construction, and the use of programming tools such as makefiles. Introduces object oriented programming techniques..

Class Outcomes:

Students completing this course will be able to:

1. Understand high-level language programming constructs
2. Understand and follow structured software design strategies.
3. Understand and utilize fundamental data structures
4. Understand the software development process.

Topics covered:

- Introduction
- C language programming constructs: variables, algebraic expressions, simple I/O
- C language programming constructs: decision statements and iterative control statements
- Structured software design: the procedural programming paradigm
- Standard library
- Fundamental data structures: arrays and structures
- Fundamental data structures: strings and string processing
- Software development process (specification à validation)
- Fundamental data structures: pointers and linked-lists
- Structured software design: the object-oriented programming paradigm

Grading Policy:

Final letter grades will be based on the standard scale 90% > A 80% - 89% = B, 70% - 79% = C, 60% - 69% = D, Below 59% = F.	Homework…….. ……..……..... 40 % Exam1...……..……..……. 15 % Exam 2……... ……..……. 15 % Final Exam (Comprehensive)…… 30 % **Total……** **100 %**

GENERAL COURSE POLICIES

- You are required to come to class and be on time. You may be dropped after three unjustified absences at the discretion of your professor. However, if you do want to be dropped you must contact your professor.

- Academic dishonesty will not be tolerated. You must submit your work only. A grade of zero will be given to any assignment, quiz, etc. that is not your own work.

- All cell phones must be turned silenced before the beginning of the class. If a student repeatedly forgets to do so, he/she will be asked to leave the classroom and may only return with the professor's permission.

- The Professor will be available only during the assigned office hours or by appointment.

- Samples of student work will be collected for quality assurance purposes. Please notify the professor, in writing, if there is any confidentiality requirement.

- Class assistance is required. There might be quizzes or group assignments that count toward the final grade.

- **For Homework Assignments:**

  - ✓ Read all instructions of each assignment to fully understand the work that needs be to turned-in

  - ✓ In order to obtain full credit, each assignment:
    - Must be turned in on time.
    - A copy of your program must be on your assigned account
    - On your account, create different directories for each assignment
    - Each program must have its header and comments in the program
    - Have your program compile without errors
    - Have your program execute all that is asked on the assignments
    - Turn in a hard copy or email your code as instructed

- You don't have to program on the machines of the UNIX lab. You may use other environments to work on your assignments, but you must still have a copy of a working program in your account in its proper directory.

- You are encouraged to work in collaboration with classmates; however, each homework assignment must be done and turned in on an individual basis.

Academic Dishonesty:

As an entity of The University of Texas at El Paso, the Department of Electrical and Computer Engineering is committed to the development of its students and to the promotion of personal integrity and self-responsibility. The assumption that a student's work is a fair representation of the student's ability to perform forms the basis for departmental and institutional quality. All students within the Department are expected to observe appropriate standards of conduct. Acts of scholastic dishonesty such as cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in the whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts will not be tolerated. Any case involving academic dishonesty will be referred to the Office of the Dean of Students. The Dean will assign a Student Judicial Affairs Coordinator who will investigate the charge and alert the student as to its disposition. Consequences of academic dishonesty may be as severe as dismissal from the University. See the Office of the Dean of Students' homepage at www.utep.edu/dos/acadintg.htm for more information.

American Disabilities Act:

If you feel you may have a disability that requires accommodations, contact the Disabled Student Services Office at 747-5148 or go to Room 106E Union.

One Final Note:

I welcome you to a new semester. I will do my best to teach you and I want you to do your best to learn. Remember programming is like math, it requires practice to learn it. Practice as much as you can. You will not learn by watching others write programs, you must do them yourself. Let's make this a great semester.