CS2308 - Foundations of Computer Science II Spring 2015

(Section 256)

Instructor: Dr. Vangelis Metsis

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Faculty Profile: http://cs.txstate.edu/Personnel/Faculty/v_m137
Office Hours: http://cs.txstate.edu/Personnel/Faculty/v_m137
MW 12:00pm - 1:00pm, and 3:30pm - 5:00pm

Section Information: CS2308-256

Time and Place of Class Meetings: MW 2:00pm - 3:20pm, DERR 234 Course webpage: http://cs.txstate.edu/~v m137/cs2308 spr2015

TRACS URL: https://tracs.txstate.edu/portal/site/79b4b68b-7698-456c-a13f-63d1f2db64d7

We will use the TRACS website for the following:

- Grades (Gradebook2 tool)
- Programming assignment submissions (Assignments tool)
- Lecture notes and Resources (code you can use in your programing assignments)
- The course schedule and assignments will also be posted on the class webpage.

Description of Course Content:

Fundamentals of object-oriented programming. Introduction to abstract data types (ADTs) including lists, stacks, and queues. Searching and sorting. Pointers and dynamic memory allocation. A continuation of CS 1428. Prerequisite: "C" or higher in CS 1428.

Course objectives:

- 1. An in depth understanding of structured programming in terms of modules and functions.
- 2. An in depth understanding of pointers and memory operations.
- 3. An introduction to linked-lists in terms of concept, implementation, and operations.
- 4. An introduction to Data Structures including Stacks and Queues.
- 5. An introduction to classes and object-oriented programming.
- 6. Ability to program in the Linux environment.
- 7. Algorithm development. Develop fluency in the development of algorithms. Comparing different algorithms for the same task (for example searching & sorting).
- 8. Testing and debugging code.

Course Materials:

Class notes and source code provided by the instructor.

Required Textbook:

 Tony Gaddis, Starting out with C++: From Control Structures through Objects, 8th Edition, ISBN: 0133769399

Useful resources:

- http://www.cplusplus.com/
- http://www.tutorialspoint.com/unix/unix tutorial.pdf
- http://vic.gedris.org/Manual-ShellIntro/1.2/ShellIntro.pdf

Grading:

Quizzes and class participation: **5%**Programming Assignments: **25%**Midterm Exam 1: **20%** (Monday, 3/2)
Midterm Exam 2: **20%** (Monday, 4/13)

Final Exam (comprehensive): 30% (Monday, 5/11)

Class Attending Policy and Homework Policy:

Must attend class and submit homework on time. Excessive absences may influence your final grade. **All assignments are to be done individually!** You may discuss general strategies for solving assignment problems with other students in the class and you may help each other debug, but you must write your own code.

Late assignments will incur 10% penalty per day, for up to 3 days. After the 3 days, no submission will be accepted.

Make-up Exams:

Make up exams will be allowed <u>only</u> to students that were not able to take the original exam due to a health condition justified by the related paperwork from a doctor. Absence due to other reasons will be graded with zero.

Drop Policy:

You must follow the withdrawal and drop policy set up by the University and the College of Science. You are responsible for checking the drop deadlines and making sure that the drop process is complete. http://www.registrar.txstate.edu/registration/drop-a-class.html

*Students will not be automatically dropped for non-attendance.

*Last day to drop: March 26, 2015.

Accommodations for students with disability:

Any student with a special need requiring special accommodations should inform me during the first two weeks of classes. The student should also contact the office of disability services at the LBJ student center.

Academic Honesty:

You are expected to adhere to both the University's Academic Honor Code as described here: http://www.txstate.edu/effective/upps/upps-07-10-01.html, as well as the Computer Science Department Honor Code, described here: 2013 0426 HonestyPolicy CSPPS.doc.

- Except where explicitly and specially allowed (such as group project), all work submitted in the class is expected to be your individual work. Plagiarism will not be tolerated and if detected will result in automatic "F" grade.
- Do not include code (or other materials) obtained from the Internet in your assignments (except what is provided or allowed by the instructor).
- Do not email your program to anyone (except your partner or the instructor).
- The penalty for submitting a program that has been derived from the internet or any other non-approved source will be a 0 for that assignment. Violators will be reported to the Texas State Honor Code Council (http://www.txstate.edu/honorcodecouncil/).