CS 1428: Foundations of Computer Science I
Fall 2017

Sections 006 & 007

Instructor: Dr. Jill Seaman
Comal 210D
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Course Webpage: http://www.cs.txstate.edu/~js236/cs1428

Office Hours: M, W: 11:00am – 12:30pm
T, R: 2:30pm – 3:30pm
and by appt.

Meeting Time/Place: Section 006: TR 9:30AM-10:50AM   ELA 218
Section 007: TR 12:30PM-1:50PM   DERR 329

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

List of recommended/required readings:
Chapters 1-7, 11.1-11.8
See course website for a weekly schedule.

Required In-Class Response system: We will be using the **Top Hat** classroom response system in class. You will be able to submit answers to in-class questions using smartphones, tablets, laptops, or text messaging on a mobile phone. An email invitation has been sent to your school email account. If you didn't receive this email, you can register by visiting: **https://app.tophat.com/e/183129** for section 006 and **https://app.tophat.com/e/406605** for section 007. Top Hat will require a paid subscription.

Course Description: Introductory course for computer science majors, minors and others desiring a technical introduction to computer science. The course emphasizes problem solving, algorithm development, structured programming, good coding style, and programming in C++.

Prerequisites: MATH 1315

Course Objectives:

At the end of the course, the students should be able to:
1. Describe the properties of good algorithms.
2. Design and develop good algorithms using a top-down approach.
3. Use the C++ programming language to implement, test, and debug algorithms for

solving simple problems.
4. Explain the concepts of data types, variables, and literals and use them in programs.
5. Write C++ code that solves computational problems.
6. Use an if or if-else construct to implement branching in an algorithm.
7. Use a for loop for definite iteration.
8. Use a while or do-while loop for indefinite iteration.
9. Use functions and parameters to simplify longer programs and reuse code from previous solutions.
10. Demonstrate the mechanics of parameter passing with emphasis on the difference between pass by value and pass by reference.
11. Manipulate data in arrays.
12. Create a new data type by using a structure.
13. Analyze and explain the behavior of simple programs involving the fundamental programming constructs covered in this class.
14. Modify and expand short programs that use the constructs covered in this class.
15. Describe strategies that are useful in debugging.
16. Use a Windows- or Mac-based editor and compiler environment to develop programs in C++.

Grading:

Participation:	8%	Top Hat	
Programming Assignments:	20%	lowest of 7 is dropped	
Lab:	12%	From your lab instructor	
Exam I:	15%	Oct 5 (Thurs)	
Exam II:	15%	Nov 16 (Thurs)	
Final Exam (comprehensive):	30%		
	section 006: Thurs Dec 14	8:00am - 10:30am	
	section 007: Thurs Dec 14	11:00am - 1:30pm	

Participation: Bring a web-enabled device or a phone with texting capabilities to every class to access the Top Hat system. Top hat questions are spread throughout the lecture: .5 point for any answer + .5 points if it is the correct answer. Your participation grade is computed as follows: the minimum of: TopHat course average / 80% and 100%.

Makeup Policy: Missed Top Hat questions and programming assignments cannot be made up. Exams may be made up in exceptional circumstances, with approval from the instructor.

Late policy for programming assignments: see the class webpage.

Notifications from the instructor: Notifications related to this class will be sent to your Texas State e-mail account. Be sure to check it regularly.

TRACS: We will use the TRACS website for the following:
- Grades (Gradebook2 tool)
- Programming assignment submissions (Assignments tool)

Everything else will be on the class webpage (including lecture presentations)

Campus Labs: Use **MCS 590** to work on your programming assignments. You may also use your own computer, but you should install CodeBlocks (or some other C++ IDE) first. The lab instructors and tutors can help you with the installation.

HELP: In addition to the instructor's office hours, there are other places to obtain assistance. Lab tutors and instructors are available in MCS 590 and your lab instructors will hold office hours in their respective offices.

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

Last day to drop with automatic "W": October 30, 2017.

Classroom Behavior: The main rule is to not disrupt or distract other students during class.

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.

- You may work together on your programming assignments. If you submit a program that is the result of group work, you must list the names of all contributors in the file header. Each student must submit their own program, even if it is the same as another students'.

  Note: In order to do well on the exams, you must be able to write code on your own, so you must practice this.

- Do not include code obtained from the internet or any other source in your programming assignment (except what is provided by the instructor during the current semester).

  The penalty for submitting a program that includes code from the internet or any other source outside of the class will be a 0 for that assignment.

Accommodations for students with disability:
Any student with needs requiring special accommodations should contact the office of disability services at the LBJ student center. Students who qualify for extra time for exams must take their test with ATSD and must schedule their test at the same time the test is given in class. Note: you must submit your request with ATSD at least 2 business days before the exam date!