

CS1337 Course Syllabus

Spring Semester, 2016

Course:	CE 1337.001 – 16S (22535) CS 1337.001 – 16S (22531) TE 1337.001 – 16S (22741) CE 1337.005 – 16S (23070) CS 1337.005 – 16S (23068) TE 1337.005 – 16S (23071)
Where:	ECSS 2.410
When:	1337.001 – Tues & Thurs 8:30am – 9:45am 1337.005 – Mon & Wed 10:00am – 11:15am
Instructor:	Gordon Arnold gordon.arnold@utdallas.edu 972.883.7518
Office:	ATEC 1.605
Office Hours:	Thurs 10:00am – 12:00pm or by appointment
Graders:	Gopichand Vanka gxv151030@utdallas.edu Vignesh Sethuraman vxs144030@utdallas.edu
Prerequisites:	CS 1336 or equivalent

Description:

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Programming language of choice is C/C++.

Course Expectations:

After successful completion of this course, the student should have an:

1. Ability to use single and multi-dimension arrays
2. Ability to implement linear and binary searches
3. Ability to implement simple sorting algorithms
4. Ability to implement structured data types
5. Ability to define and implement a class
6. Ability to use fundamentals of object-oriented design

Textbook and Materials:

- *Starting out With C++: From Control Structures Through Objects*, 8th Edition, by Tony Gaddis
- *Turning Point Response Card Clicker*
 - This course will require the use of a clicker. A clicker is an audience response device that resembles a small calculator. This allows you to provide real-time feedback to your instructor during class. Class summary results are displayed graphically, providing students and the instructor a gauge as to how well the class is grasping the material. You can purchase (and sell back) your clicker at the UTD Bookstore.
 - If you do not want to buy a clicker, you may use an equivalent compatible app on your personal mobile device. This, however, is not supported by the instructor or the UTD IT department.

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Course Requirements:

There will be regularly assigned reading and homework problems.

The homework problems will require the student to spend time programming a computer.

Programming assignments should be turned in by means of eLearning. Assignment files contain:

- A text copy of all source code (.CPP).
- Documentation in the program should include algorithms and, if required, class diagrams. If additional Documentation is required, it should be submitted as a Microsoft Word, PDF, or text file. Please do not use rtf or file types as they are not readable in e-learning.
- An executable version of your program that can run on a Windows CS Lab machine.(.EXE)

Programming assignments will be graded on a 100 point basis, utilizing the following criteria:

Program design (did you think about it?)	30%
Program Execution (does it work?)	20%
Satisfaction of Specifications (does it do what it is supposed to do?)	20%
Coding style (is it easy to read/understand/maintain?)	20%
Comments (are there enough?)	10%

Keep in mind that you always want to write code that is easy to understand and is also easy to maintain.

Course Schedule:

This schedule is tentative and subject to change. Reading is in the textbook specified in the syllabus.

Week	Section	Date	Topic	Reading
1	005	11-Jan	Syllabus review, course requirements, terminology.	Ch. 1
	001	12-Jan	Syllabus review, course requirements, terminology.	Ch. 1
	005	13-Jan	Introduction to C++	Ch. 2
	001	14-Jan	Introduction to C++	Ch. 2
2	005	18-Jan	Martin Luther King Day -- No class	
	001	19-Jan	Using Visual Studio, the Memory Window, and the Debugger	
	005	20-Jan	Using Visual Studio, the Memory Window, and the Debugger	
	001	21-Jan	Expressions and Interactivity	Ch. 3
3	005	25-Jan	Expressions and Interactivity	Ch. 3
	001	26-Jan	Making Decisions	Ch. 4
	005	27-Jan	Making Decisions	Ch. 4
	001	28-Jan	Loops and Files	Ch. 5
4	005	1-Feb	Loops and Files	Ch. 5
	001	2-Feb	Functions	Ch. 6
	005	3-Feb	Functions	Ch. 6
	001	4-Feb	Arrays	Ch. 7.1-7.10
5	005	8-Feb	Arrays	Ch. 7.1-7.10
	001	9-Feb	Arrays; Searching and Sorting Arrays	Ch. 8
	005	10-Feb	Arrays; Searching and Sorting Arrays	Ch. 8
	001	11-Feb	Pointers	Ch. 9
6	005	15-Feb	Pointers	Ch. 9
	001	16-Feb	Pointers, continued	Ch. 9
	005	17-Feb	Pointers, continued	Ch. 9
	001	18-Feb	Exam 1 Review	Chapters 1-9
7	005	22-Feb	Exam 1 Review	Chapters 1-9
	001	23-Feb	Exam 1	Chapters 1-9
	005	24-Feb	Exam 1	Chapters 1-9

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	001	25-Feb	Characters, C-Strings, and the String class	Ch. 10
8	005	29-Feb	Characters, C-Strings, and the String class	Ch. 10
	001	1-Mar	Structured Data	Ch. 11.1-11.10
	005	2-Mar	Structured Data	Ch. 11.1-11.10
	001	3-Mar	Structured Data, continued	Ch. 11.1-11.10
9	005	7-Mar	Structured Data, continued	Ch. 11.1-11.10
	001	8-Mar	Introduction to Classes	Ch. 13
	005	9-Mar	Introduction to Classes	Ch. 13
	001	10-Mar	Introduction to Classes, continued	Ch. 13
10	005	14-Mar	Spring Break	
	001	15-Mar	Spring Break	
	005	16-Mar	Spring Break	
	001	17-Mar	Spring Break	
11	005	21-Mar	Introduction to Classes, continued	Ch. 13
	001	22-Mar	More About Classes	Ch. 14
	005	23-Mar	More About Classes	Ch. 14
	001	24-Mar	Exam Review	Chapters 10, 11, 13, 14
12	005	28-Mar	Exam Review	Chapters 10, 11, 13, 14
	001	29-Mar	Exam 2	Chapters 10, 11, 13, 14
	005	30-Mar	Exam 2	Chapters 10, 11, 13, 14
	001	31-Mar	Recursion	Ch. 19
13	005	4-Apr	Recursion	Ch. 19
	001	5-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
	005	6-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
	001	7-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
14	005	11-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
	001	12-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
	005	13-Apr	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15
	001	14-Apr	The Standard Template Library; Error Handling	Ch. 16
15	005	18-Apr	The Standard Template Library; Error Handling	Ch. 16
	001	19-Apr	Advanced File Operations	Ch. 12
	005	20-Apr	Advanced File Operations	Ch. 12
	001	21-Apr	Advanced File Operations	Ch. 12
16	005	25-Apr	Advanced File Operations/Exam Review	Chapters 12, 15, 16, 19
	001	26-Apr	Exam Review	Chapters 12, 15, 16, 19
	005	27-Apr	Final Exam	
	001	28-Apr	Final Exam	

Course & Instructor Policies:

- Electronic devices in the classroom (except for the “clickers”) are neither necessary nor required. Video and still photography will not be allowed. You are, however, strongly encouraged to take notes.
- All make-up exams are scheduled during final week at the discretion of the instructor. Make-up exams are only given to those students who coordinate the missing of an exam prior to the originally scheduled exam date and time or who have a valid medical excuse.
- Quizzes will not be announced and may not be made up.
- Course credit is only given for work assigned and scheduled in the course schedule. No extra work will be assigned nor will extra credit be given for any extra work performed by a student.

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- Late assignments will lose 20 points per day or portion thereof that they are late. Assignments more than 5 days late will not be accepted and will be recorded as a zero. Assignments are due on the date set in eLearning. This date will generally be posted with the assignment, as well, but eLearning is the real deadline.
- Class attendance is not required except for exams, but will be recorded. There is a strong, direct correlation between class attendance and class performance. Those students who regularly attend class tend to make significantly higher final grades than those who don't.
- Students are expected to be respectful to each other and to the course instructor. Disruptive behavior in the classroom is not tolerated.
- Each student in the class is encouraged to join/form a study group. Members of each study group are strongly encouraged to assist one another in learning and understanding the course material. However, your work must be your own.
- All exams are closed book, closed notes, no electronics.
- Programming projects and exams determine grades. Your grade is determined by the following formula:

Programming Assignments and Homework	25%
Exams and Quizzes	75%

Points on quizzes will be added to your cumulative test grade. Points on small programming problems (designated "homework" rather than "Assignment") will be added to your cumulative programming assignments grade

- The grading scale in this class may use a curve. The purpose of the curve is not to improve the student's grade, but instead to take into account any problems with measurement of the student's aptitude. Whether or not a curve will be used will not be decided until all grades are in. Your midterm grade will have a limited number of data points and may or may not be an accurate reflection of your final grade, just your proficiency up to that point. The base grading scale given below may be adjusted based upon the performance of the class as a whole:

98-100	A+	☺
92-97	A	
90-91	A-	
88-89	B+	
82-87	B	
80-81	B-	
78-79	C+	
72-77	C	
70-71	C-	
68-69	D+	
62-67	D	
60-61	D-	
Below 60	F	☹

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.