	Course	CE/CS/TE 1337 Computer Science I
	Professor	Don Vogel
	Term	Spring 2020
		Section CE/CS/TE 1337.013 Tuesday & Thursday : 11:30 am – 12:45 pm Class Room Location: ECSS 2.306

Professor's Contact Information

Office Phone	972-883-3551
Office Location	ECSS 3.603
Email Address	don.vogel@utdallas.edu
Office Hours	Tuesday and Thursday: 10:00 am – 11:00 am and 1:15 pm – 2:15 pm Wednesday : 11:00 am – noon and 1:00 pm – 2:30 pm Available by appointment for other times

General Course Information

Prerequisites	CS 1336 is a prerequisite for this course
Course Description	**Programming Fundamentals** 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.
Learning Outcomes	• Ability to use single and multi-dimension arrays • Ability to implement simple searching and sorting algorithms • Ability to implement pointers and perform simple memory management • Ability to implement structured data types • Ability to define and implement a class • Ability to use fundamentals of object-oriented design
Suggested Materials	• C++ language tutorial http://www.cplusplus.com/files/tutorial.pdf • C++ reference: http://www.cppreference.com • C++ tutorial http://www.learncpp.com/
Text and Project Environment	There is a text book and a lab environment that are used for this course. The text book for the course is: • Starting Out with C++, From Control Structures through Objects (9th edition); Gaddis, Tony; Addison-Wesley Publishing. ISBN 9780134498379 For the lab environment, you **MUST** get a subscription to zyBooks. See the *Course Homepage* section on eLearning for details on purchasing a subscription to zyBooks. There are two ways to get access to the zyBooks materials. **Option 1:** • Sign in or create an account at http://learn.zybooks.com. Use your UTD e-mail address (netid@utdallas.edu). You will need to create a password for this account. You should ***not*** use your UTD e-mail password.

	• Enter zyBook code **UTDALLASCE1337CS1337TE1337VogelSpring2020** • Subscribe • The section number is your course code and section number: CS1337.013. A subscription is **$25** and will last until May 22, 2020. You need to subscribe right away so you can do the reading, homework and labs. **Option 2:** The second way is to purchase a copy at the UTD bookstore. The ISBN is **978-1-5418-9297-2**. The price may be different from the price for option 1. You need to get this right away.
C++ Compiler (Required)	All programming assignments (homework and projects) must be submitted to zyLabs. The zyLabs environment will run a series of tests. If your program fails one or more of the tests you can update your program and fix the issues. You can do this multiple times until the due date. You may use any IDE that is compatible with MinGW-64. The version used in the open lab (ECSS 2.104) is version 8.1. The version on zyBooks.com (zyLabs) is version 6.2. The key is that you should have a version of C++ that supports C++14 (or later). You are free to install the C++ compiler on your own computer, but you don't have to. You can make use of the computers in the labs in rooms ECSS 2.104 (preferred) and ECSS 2.103 (when not being used for CS 1134 and CS 1136 labs). In class, the Integrated Development Environment (IDE) that I will be using is Eclipse. This is a free download for Windows. I will post a document to eLearning stating how you can install the compiler and Eclipse. You can also find a copy at URL: http://utdallas.edu/~dgv130030/pdfs/Eclipse_for_Windows_MinGW_w64_8_1_0.pdf For Mac users, I recommend using xcode or creating a Windows partition to install MinGW and an IDE. Be advised that there is a Mac version of Eclipse, but I have not used it. If a student uses a compiler other than MinGW 8.1 for development, he/she is responsible for verifying prior to submission that the code compiles properly with the stated compiler. No compiler is perfect and each one has its own quirks. It is the student's responsibility to make sure that the program functions as expected with the compiler that will be used for grading (MinGW 8.1). This is an issue with the Microsoft VisualStudio which is NOT based on MinGW. If you intend to use your own computers to write the class assignments, it is important that you get a compiler downloaded, installed, and running on your computer as soon as possible. If you don't have a computer, or if you're having problems getting a compiler installed, you should write your programs in the labs until the problems are resolved. In any case, please note that you are responsible for getting the programming assignments written and turned in on time. Since there are many computers available on campus, problems with your local machines will not be accepted as an excuse for not doing the assignments or late submissions. If you are using MinGW, MinGW-64, or xcode you should use the following compiler options:

	-pedantic-errors -Wall -Wextra -Wconversion

Tentative Class Schedule (all dates are subject to change at the discretion of the instructor)

Week of (Monday)	Tuesday	Thursday	Description
January 13	Syllabus introduction and Searching and Sorting	Searching and Sorting	Read Chapter 8 (Searching and Sorting) and Chapter 11 (Structured Data)
January 20	Searching and Sorting and Structured Data	Structured Data	
January 27	Structured Data and Advanced File Operations	Advanced File Operations	Read Chapter 12 (Advanced File Operations)
February 3	Advanced File Operations	Advanced File Operations	Read Chapter 9 (Pointers)
February 10	Pointers	Pointers	Read Chapter 13 (Introduction to Classes)
February 17	Pointers	Introduction to classes	
February 24	Introduction to classes	More About Classes	Read Chapter 14 (More About Classes)
March 2	**Test 1 - March 3 - (11:15 AM - 12:45 PM) - 75 minutes**	More About Classes	
March 9	More About Classes	More About Classes	
March 16	Spring Break	Spring Break	Read Chapter 15 (Inheritance, Polymorphism and Virtual Functions)
March 23	Inheritance, etc	Inheritance, etc	Read Chapter 16 (Templates and Exceptions) - templates only, and Chapter 17 (Linked Lists)
March 30	Templates	Templates and Linked Lists	Read Chapter 20 (Recursion)
April 6	Linked Lists	Recursion	Read Chapter 16 (Templates and Exceptions) - exceptions only
April 13	Exceptions	Introduction to C	
April 20	Introduction to C	STL	
April 27	Move semantics	Iterators	
May 4	**Test 2 - May 5 – (11:15 AM - 2:45 PM) - 75 minutes**		

Important Dates (Preliminary). All project and homework due dates will be posted to eLearning and zyBooks. Any changes to test dates and times will be posted on eLearning.

January 13	Classes start
January 20	Martin Luther King Day (School Closed)
January 29	Census Day, Last day to drop a class without a "W"
March 3	Test # 1 at the testing center from 11:15 am to 2:45 pm
March 16 – March 22	Spring break
March 26	Last Day to Withdraw
April 30	Last day of classes
May 1	Reading day
May 5	Test # 2 at the testing center from 11:15 am to 2:45 pm

Course Policies

Communications	I will be communicating with you via eLearning and e-mail. If you need to send me an e-mail make sure it is using your UTD e-mail address. Always include your course and section number in any correspondence (CS1337.013). Make sure you are checking eLearning announcements and checking your UTD e-mail frequently (once a day at the minimum). I will not respond to you via gmail or any other non-UTD e-mail system. I need to verify that you are my student and I can only do that with the UTD e-mail system.
Make-up Work	Currently none is planned
Extra Credit	Currently none is planned
Homework	Homework assignments are generally short coding assignments that can be done in 1-2 hours. These assignments will typically be due 1 week from the date given. Make sure you check your use submit mode on zyBooks to submit your homework assignments. See "Your Work" below for additional information.
Late Homework	Homework will not be accepted late. If your assignment is not submitted to zyBooks at the time posted on eLearning and zyBooks, it is late and will receive a grade of 0. If it is not submitted it will get a grade of 0. Homework is only accepted via zyLabs. You need to make sure you submit the homework (on zyLabs) using the submit feature. You can do multiple submits before the due date.
Projects	Projects will be major programming assignments that reinforce recently discussed topics and should be completed in two weeks. Projects are intended to take approximately 15-20 hours to complete; this includes the design, coding and testing process. Do not wait until a couple of days before the due date to start the project. This is a very bad idea and almost never ends well for the student. Programming assignments will be graded on a 100-point basis. Not only will your project be graded on proper execution, but also things like

	efficiency, implementation and documentation. Keep in mind that you always want to write code that is easy to understand and is easy to maintain. Fewer lines do not necessarily mean a better program. Please use comments liberally. You are responsible for testing your project thoroughly before submission to zyLabs. You will get feedback from zyLabs and can make multiple submissions before the due date. See "Your Work" below for additional information.
Late projects	Projects will be accepted late at the penalty of 5% per hour late (rounded up, so one second late will be counted as one hour) for up to 6 hours past the due date/time. If the project is submitted more than 6 hours late the grade will be 0. Missing projects will be given a grade of 0. If you believe that you have a valid excuse for your work being late then you must make arrangements with the instructor BEFORE the due date. In no cases will lab submissions be accepted more than two weeks after the original due date. Medical excuses will require a note from your Doctor.
Missed Exams	All exams will be at the testing center. You must sign up for the test at least 72 hours before the tests. The tests are already scheduled and you should sign up NOW for the tests. You are responsible for being available during the exam times. The midterm exam is during class time. The second exam will be during the exam time assigned on Galaxy. If you cannot make an exam time you must let me know BEFORE the exam date and time. Medical emergencies will require a note from your Doctor. **Missed exams will result in a grade of 0 for that exam.**
Your work	Homework and project assignments are individual endeavors and students are not to work in groups on any assignment. Feel free to share ideas on solving the problem presented by a homework or project assignment, but DO NOT SHARE ANY CODE. When discussing logic, keep it general. If you give out every little piece of logic you have, there is a good chance the person you are helping will have very similar code as yours and may be flagged for being too similar. Students should avoid using web sites like GitHub and Chegg for help on projects. Copying code from a web site is considered plagiarism and will be treated as such. If you find code on a web site, it is highly likely another student will find it as well which may cause both submissions to be flagged for similarity. All projects will be submitted in zyBooks and will be compared for originality. Any projects that are approximate or identical copies will be reported to the Office of Community Standards and Conduct, and I will accept their decision in regards to the grade if they believe that academic dishonesty has occurred. Homework assignments will be graded on a 50 point basis. Project assignments will be graded on a 100 point basis. Not only will your

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<tr><td></td><td>project be graded on proper execution, but also things like efficiency, implementation and documentation.

Keep in mind that you always want to write code that is easy to understand and is also easy to maintain. Fewer lines do not necessarily mean a better program. Please use comments liberally.

You are responsible for testing your project thoroughly before submission. I will not give you all of the test cases that will be used for grading before the project is due. As a computer scientist, you must be able to identify all possible input and make sure that your code produces proper output and does not crash.</td></tr>
<tr><td>Grading Disputes</td><td>All grade disputes must be reported within 1 week of the grade in question being posted in eLearning.

I am responsible for grading your exams. If you have questions regarding your exam, please contact me. Please note that due to FERPA, I cannot discuss grades via e-mail.

Everything else will be graded by a TA. Please address any grading concerns you have regarding these grades with the TA. When you email the TA with questions about your grade, please copy me on the email so that I am aware of the situation and can make sure it is resolved.</td></tr>
<tr><td>Class Attendance</td><td>Three consecutive absences leads to one letter grade drop (as an example, your grade could drop from an A- to a B-). Four consecutive absences leads to an F.</td></tr>
<tr><td>Tutoring</td><td>A discussion board is available for help with homework and project assignments. See the Discussion Board area on eLearning.

For programming assistance in CE/CS/TE 1337, a tutoring lab will be maintained. The schedule usually comes out a couple of weeks after the semester begins. Once the tutoring schedule for this semester has been released, an announcement will be posted on eLearning. In addition, it is part of the TA’s job to help you, so please of course, I’ll be happy to help as well.

URL for the hours for the mentor center:
https://csmc.utdallas.edu</td></tr>
<tr><td>Classroom Citizenship</td><td>Professional at all times</td></tr>
<tr><td>Grading (credit) Criteria</td><td>Grading Policy

Homework, and quizzes – 10%
Class Participation – 5%
Exam 1 – 20%
Exam 2 – 25%
Projects – 40% (4 projects, each worth 10%)

Grading:

Grades are not rounded in any way

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<tr><td>A+</td><td>97 and above</td></tr>
<tr><td>A</td><td>93 - 96 (93 or more and less than 97)</td></tr>
<tr><td>A-</td><td>90 - 92 (90 or more and less than 93)</td></tr>
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	B+	87 - 89 (87 or more and less than 90)
	B	83 - 86 (83 or more and less than 87)
	B-	80 - 82 (80 or more and less than 83)
	C+	77 - 79 (77 or more and less than 80)
	C	73 - 76 (73 or more and less than 77)
	C-	70 - 72 (70 or more and less than 73)
	D	60 - 69 (60 or more and less than 70)
	F	Below 60
Comet Creed	*This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:* *"As a Comet, I pledge honesty, integrity, and service in all that I do."*	
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.	

Descriptions and timelines are subject to change at the discretion of the Professor.