UT|D

Course	**CS 1337 002 Computer Science I**
Professor	Dr. Miguel A. RAZO
Term	Spring 2017
Meetings	10:00 AM-11:15 AM Mon & Wed, ECSS 2.312

Professor's Contact Information

Office Phone	972-883-4240
Office Location	ECSS 3.605
Email Address	mrazo@utdallas.edu(use CS 1337.002 as subject)
Office Hours	Mon/Wed 11:30AM-12:30 PM, or by appointment

General Course Information

Pre-requisites, Co-requisites, & other restrictions	Prerequisite: CS 1336 with a grade of C or better or equivalent.
Course Description	Introduction to object-oriented software analysis, design, and development. Classes and objects. Object composition and polymorphism. Sorting, searching, recursion. Strings using core classes. Inheritance and interfaces. Graphical User Interfaces. Includes a comprehensive programming project 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
Required Texts & Materials	Starting out with C++, From Control Structures through Objects, Seventh Edition, Tony Gaddis, Ed. Addison Wesley, ISBN: 0132774178
Suggested Texts, Readings, & Materials	Syllabus, calendar, slides, sample programs, assignments, and online quizzes will be available in the eLearning section for the course at https://elearning.utdallas.edu. P. Deitel & H.. Deitel, "C++ How to Program", 8th ed., Prentice Hall, ISBN: 978-0132662369. Stan Lippmann, Josie Lajoie & Barbara Moo , "C++ Primer" 5th ed, Addison Wesley, 2012, ISBN: 978-0321714114. Bjarne Stroustrup: "Programming: Principles and Practice using C++" Addison-Wesley 2009, ISBN 978-0321543721. Andrew Koenig, Barbara E. Moo, "Accelerated C++ Practical Programming by Example", Addison-Wesley, 2000, ISBN 0-201-70353-X. http://www.cplusplus.com/doc/tutorial/ http://www.learncpp.com/

Assignments & Academic Calendar
*The schedule is **tentative** and **subject** to change*

Week	Topic	Reading
1-6	Syllabus review, course requirements, & introduction to computers and programming(C++) and equivalent C code	Ch. 1 & 2
	Expressions and Interactivity	Ch. 3
	Making Decisions	Ch. 4
	Loops and Files	Ch. 5
	Functions	Ch.6
	Arrays	Ch. 7, Sections 7.1 to 7.10
	Searching and Sorting Arrays Review!	Ch. 8
	Exam 1(February 15)	Ch. 1-8
7	Pointers	Ch. 9
8&9	Characters, C-Strings, and the string class Structured Data	Ch. 10 Ch. 11, Sections 11.1-11.10
10 & 11	Introduction to Classes Review	Ch. 13
	Exam 2(March/29)	
12	More about Classes	Ch. 14, Sections 14.1, 14.3 and 14.4
13	Inheritance, Polymorphism, and Pure Virtual Functions	Ch. 15, Sections 15.1-15.7
14	Linked Lists	Ch. 17, Sections 17.1- 17.4
15	Review/ Project Due	
	Exam 3(April 26)	
16	GUI(Optional)	

Class Assignments:
There will be regularly assigned reading and homework problems. Reading assignments should be done before the class lecture. Homework problems will require the student to spend time programming a computer outside of class. It includes a test/sample scenario to demonstrate the correct operation of the assigned tasks.

Submitting Assignments
Programming assignments should be submitted using your elearning account. Each homework assignment should contain the following files:

       1. A text copy of all source code including its documentation
       2. A text copy of your programs input and displayed output (.txt)
       3. A copy of the executable code

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

Criteria	Sub Criteria		Maximum Score
Source Code	Program Design	Partitioning	5%
		Organization	5%
		Efficiency	5%
		Coupling	5%
	Comments		10%
	Coding Style	Formatting	5%
		Naming	5%
		Capitalization	5%
Execution	Program Execution	No crashes	5%
		Error Recovery	5%
		Efficiency	5%
	Specification	Nominal cases	25%
		Special cases	5%
Documentation			10%
	Total		*100%*

Try to write code that is easy to understand and maintain. ***More details will be given in class***.

Optional Ad Hoc
These include: quizzes (pop or otherwise), writing/researching on class related topics, or submissions of other types. What fills this category is entirely at my discretion, and I will make those judgments as the semester progresses.

Course Tools:
- **C++ Compiler:** All of the programs we write this semester will be in C++. It is not essential that you use a particular C++ compiler. However, it is essential that your programs can be compiled and run by the TA's on their systems. Few options will be provided through elearning, for example, every student has access to a free student version of MicroSoft's Visual C++ compiler, and there are some free downloadable compilers available as well.

- **Help Desk:** For help with issues regarding your computer, UTD maintains a walk-in help desk. Visit their Web site for details: ***http://www.utdallas.edu/ir/helpdesk/***

- **Tutoring:** For programming assistance in CS1337, 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 feel free to engage with him/her at any time. And, of course, I'll be happy to help as well.

Course Policies

Grading (credit) Criteria	**Optional Ad-Hoc** **10%** **Homework Assignments** **20%** **Programming Project** **10%** **Exam 1** **20%(Closed Book/notes)** **Exam 2** **20%(Closed Book/notes)** **Exam 3** **20%(Closed Book/notes)**
Reviewing Grades	**Students have one week after the results of an assignment or exam is returned to request a review/correction of their grade. A review can result in the lowering of a grade.**
Make-up Exams	**There will be no make-up exams unless previously requested and approved by the instructor**
Extra Credit	**Extra credit assigments will not be given to individual students.**
Late Work	**Each programming assignment will include a due date and time. You may submit an assignment up to 24 hours after the due date and time with a 20 point penalty.**
Special Assignments	**There will be no special assigments**
Class Attendance	**CS Department Policy:three consecutive absences leads to one letter grade drop. Four consecutive absences leads to an F.** **You are expected to attend the lectures for this course. There is a strong, direct correlation between class attendance and class performance. Students who regularly attend class and pay attention to the lecture tend to make significantly higher grades than those who do not.** **You are responsible for all material discussed in lecture whether you are present for lecture or not.** **An attendance sheet will be sent around each lecture. You will be considered absent if you have not signed the attendance sheet when it is collected by the instructor.** **Pop quizzes may be given at any time during the lecture. If you are not present at the time the quiz is given, you will receive a 0 for the quiz.**
Classroom Citizenship	**Class participation is given consideration**
Student Conduct and Discipline	The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of

	these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391). A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.
Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal from Class	The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.
Student Grievance Procedures	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor,

	administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.
Incomplete Grades	As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Disability Services	The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.
	
	     The contact information for the Office of Disability Services is:
	     The University of Texas at Dallas, SU 22
	     PO Box 830688
	     Richardson, Texas 75083-0688
	     (972) 883-2098 (voice or TTY)
	
	Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.
	
	It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days	The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

	The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.
Off-Campus Instruction and Course Activities	Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean.

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