CS/CE1337.501 – COMPUTER SCIENCE I SPRING 2023 SYLLABUS

CONTACT INFORMATION

Professor: Office: Office phone: Email:	Khiem Le, Ph.D. ECSS 3.703 972-883-6217 (use MS Teams to call) Khiem.Le@utdallas.edu (best way to reach me) Always use your UTD email account and include class and section number in the
Lecture: Office hours:	subject Mondays and Wednesdays, 5:30 PM to 6:45 PM, ECSS 2.312 By appointment, on MS Teams. See "Procedures" on eLearning for details.
Grader: Email: Office hours:	TBD

COURSE MODALITY AND EXPECTATIONS

Instructional Mode	In-person
Course Platform	eLearning, zylabs, Piazza
Expectations	Lectures: You are expected to attend at the specific lecture day/times.
	Tests and quizzes: You should take them at specific times.
	Homeworks: You usually have 1 week to complete a homework. Late and very late submissions are usually accepted, with penalties. In specific instances, the time allocated may be different than one week, or late/very late submissions are not accepted. You will be notified if and when that happens.

Syllabus Policies and Procedures: Please see https://go.utdallas.edu/syllabus-policies

PREREQUISITES AND COREQUISITES

Prerequisite: <u>CS 1336</u> with a grade of C or better or equivalent. The course has no corequisite.

TEXTBOOK AND REQUIRED TOOLS

TEXTBOOK

Recommended, but not required: Starting Out With C++, From Control Structures through Objects Author: Tony Gaddis, Publisher: Pearson, Ninth Edition, Copyright: 2018 ISBN 9780134498379.

It's \$163.50 used at UTD Bookstore, but you can get it from any source you wish.

Do not buy the electronic version called REVEL.

ZYLABS SUBSCRIPTION

You need to subscribe to zyLabs (auto-grading tool) for the homework coding assignments and the Exos. Follow these steps to subscribe:

- 1. Logon to elearning
- 2. Click on "link_to_subscribe_to_zylabs" under "General info and tools" in eLearning (**Do not go directly to the zyBooks website and create a new account**)
- 3. Subscribe. You will be asked to give your section number and your student ID. For the student ID, use your NetID.

A subscription is **\$24**. Subscriptions will last until May 31, 2023.

PROGRAMMING TOOLS

You will need a stand-alone Integrated Development Environment (IDE) and its compiler to develop your programs. You are not required to use a particular IDE or compiler, but if you use Windows, you have the option to install the CodeBlocks IDE, refer to "CodeBlock Notes" for details on how to install and configure it. You can also use various IDEs on the PCs in the Computer lab in ECSS 2.104.

COURSE DESCRIPTION

Computer Science I (3 semester credit hours) 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++.

STUDENT LEARNING OBJECTIVES

The Learning Objectives of this class are as follows:

- 1. Ability to use single and multi-dimension arrays
- 2. Ability to implement simple searching and sorting algorithms
- 3. Ability to implement pointers and perform simple memory management
- 4. Ability to implement structured data types
- 5. Ability to define and implement a class
- 6. Ability to use fundamentals of object-oriented design

GRADING

Your letter grade will be determined from an overall numerical score, calculated as a weighted average with the weights below:

Test #1 score:	20%
Test #2 score:	20%
Test #3 score:	25%
Homeworks average:	20%
Quizzes average:	5%
Participation score:	10%

The overall numerical score is possibly curved and then converted to a letter score, as follows. Curving, if any, will always be in your favor.

Overall numerical score (possibly curved)	Grade
≥97	A+
≥93	А
≥90	A-
≥87	B+
≥83	В
≥80	B-
≥77	C+
≥73	С
≥70	C-
≥67	D+
≥63	D
≥60	D-
Less than 60	F

If your homework average is less than 70, your letter grade cannot be better than C-, regardless of your overall numerical score. For example, if your score is 81, your grade according to the table is B-, but if your homework average is less than 70, your grade will be C-.

TESTS

- Tests are cumulative.
- Tests are taken on eLearning at the Testing Center. You are allowed a 8.5 by 11 double sided, handwritten only, cheat sheet, that you must hand-in at the end of the exam.
- Each test is graded out of 100
- The test dates are shown in the "Schedule" section below. If you have unforeseen problems, such as medical issues or emergencies, you should contact me ASAP with the proper documentation. A makeup exam may be given at my discretion
- You are required to reserve your seat at the Testing Center at least 48 hours prior to the test through this link: <u>https://ets.utdallas.edu/testing-center/students/</u>. The Center does not allow walk-ins. Be sure to select the right section. If you fail to reserve your seat, you may not be able to take your test, and there is no guarantee I can reschedule the test for you. If I have to reschedule your test due to your negligence, there will be an automatic 10% penalty on your test score.

HOMEWORKS

- Homeworks are programming assignments designed for you to practice the concepts learned. You will usually have one week to do each one, but in specific instances, the time allocated may be different than one week. You are notified of the due date when a homework is assigned.
- You will develop your program using a stand-alone Integrated Development Environment (IDE) and its compiler, then submit your program to the zylabs auto-grader for grading. To submit to zyLabs, you will need a zyLabs subscription.

- A late submission is a submission made less than 24 hours past the due date. It will receive a 10% penalty on the grade.
- A very late submission is a submission made more than 24 hours, but less than 72 hours past the due date. It will receive a 30% penalty on the grade.
- For some homeworks, it could be that late submissions and/or very late submissions will not be accepted. If and when that happens, you will be notified when the homework is assigned.
- All submissions must be your individual work. If you get help from others (other students, CSMC) you
 must ensure that you submit only work that you have personally done. There are no group
 assignments in this class. 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. You should avoid copying code
 from web sites on the Internet. Copying code from a web site or another source 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. Non observance of
 these rules will be considered as academic dishonesty and handled accordingly. The only exception
 is when I give you code to use as part of your program submission, in which case you are allowed to
 use that code that you did not write.
- Refer to "Homework Notes" posted on eLearning under "General Info and Tools" for more details on how your homeworks will be graded.

QUIZZES

- Quizzes usually take place about a week after a chapter has been completed
- They are low stakes mini-tests designed to give you a gauge as to how well you grasped the material, and prepare you for the tests and homeworks
- There is no makeup quiz. If you miss a quiz due to an unexcused absence, you will get no credit.
- The maximum achievable score on each individual quiz may vary from quiz to quiz, as it depends on the number of questions in the quiz.
- The quiz average is the weighted average of the quiz scores, where the weight of a quiz is proportional to the maximum achievable score of the quiz.

IN-LECTURE EXOS

I teach the programming concepts by illustrating them with a program that I type, compile and run as a demonstration during the lecture. You will be asked to type, compile and run the same program. Exos are very important to learn the concepts. To give you an incentive to engage in the Exos, they count for the participation score. To get participation credit, you have to click on the Exo submission link when told during the lecture and submit the Exo to zylabs by 11:59 PM on the day after the lecture.

CLASS PARTICIPATION AND INVOLVEMENT

Class participation score is based on:

- Exo scores: If you don't submit the Exo by the deadline, you get zero participation point. If you submit by the deadline, you get the participation points from the zylabs automatic grading (0 point or 1 point). If you are unable to submit the Exo by the deadline due to an emergency or medical reason, I will waive the Exo for you, provided that you submit acceptable documentation.
- Quiz participation: Non participation counts as zero point, participation counts as 1 point (this is different from the quiz score which counts in the quiz average). If you are unable to take the quiz due

to an emergency or medical reason, I will waive the quiz for you, provided that you submit acceptable documentation

- Survey and other task assignments (other than homeworks): For each survey or task, completion by deadline counts as 5 points, otherwise counts as zero point
- Non observance of instructions may lead to participation points being deducted, at my discretion.
- Disruptive behavior will not be tolerated.

ISSUES ABOUT GRADING

Grade Dispute: Students are required to bring up any grading issue within a week of grade posting.

- Contact the grader for questions about the homework scores. Please copy me on all your emails with the grader so I am aware of the situation and can make sure it is resolved.
- Contact me for questions about the quiz and test scores.

COMMUNICATION

Tests, quizzes, lecture material, grades and announcements are posted on eLearning. Announcements are also emailed out to the whole class. In addition, you may also receive individual emails from me or the grader. It is your responsibility to timely logon to eLearning and check your UTD email to stay abreast of assignments, announcements and other information. Technical requirements for eLearning can be found at <u>Getting Started with eLearning</u>. Tutorials can be found at <u>Student eLearning Tutorials</u>.

DISCUSSION FORUM

We will use Piazza as a discussion forum where you can post questions. Please sign up by clicking on the link below, and be sure to use your UTD email address (if you don't use your UTD email address, the system cannot recognize you properly, and you won't get credit):

https://piazza.com/utdallas/spring2023/csce1337s23

When you post your question on Piazza, everyone can answer and everyone can benefit from the answer. Piazza makes it easy for students to discuss among themselves and benefit from the collective wisdom and knowledge of the students, Prof and grader. I encourage you to ask questions in particular when you're struggling to understand a concept.

Posting questions and/or answering questions also counts as participation and citizenship. Please follow these rules:

- If you want to be anonymous, post privately or anonymously to the class.
- If the nature of your question is private, you can post a private question to me or the grader.
- If you have problems or feedback for the developers, email <u>team@piazza.com</u>.
- Never post publicly your code. If other students copy your code, you will end up with similar submissions. The graders and myself can see your code by logging to zylabs. It's OK to post the zylabs error message.
- Read through the existing posts before you post your question. Often times somebody else posted the same question and already got an answer.
- If your issue has been resolved, be kind enough to post an update. Click on the "Resolved" button if it's available, or just post an update saying your problem has been solved.

SCHEDULE (MAY BE ADJUSTED AS NEEDED)

	Date	Lecture – Chapters are Gaddis textbook chapters
1	Jan 18	Syllabus and Chapter 8 (Searching and sorting)
2	Jan 23	Chapter 8, chapter 9 (Pointers)
3	Jan 25	Chapter 9
4	Jan 30	Chapter 9
5	Feb 1	Chapter 9
6	Feb 6	Chapter 9
7	Feb 8	Chapter 10 (Chars and strings)
8	Feb 13	Chapter 10
9	Feb 15	Chapter 11 (Structures)
10	Feb 20	Chapter 11
11	Feb 22	Chapter 11 and test review
12	Feb 27	Test # 1 - No lecture on that day
13	Mar 1	Chapter 13 (Intro to classes)
14	Mar 6	Chapter 13
15	Mar 8	Chapter 13
	Mar 13	Spr break
	Mar 15	Spr break
16	Mar 20	Chapter 13
17	Mar 22	Chapter 14 (More on classes)
18	Mar 27	Chapter 14
19	Mar 29	Chapter 14
20	Apr 3	Chapter 15 (Inheritance)
21	Apr 5	Test Review
22	Apr 10	Test # 2 – No lecture on that day
23	Apr 12	Chapter 15
24	Apr 17	Chapter 15
25	Apr 19	Chapter 15
26	Apr 24	Chapter 16 (Exceptions)
27	Apr 26	Chapter 16
28	May 1	Cushion/TBD
29	May 3	TBD/ Test review
	May 9	Test # 3 - No lecture on that day

FROM UTD

CLASS MATERIALS

The instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the <u>Student Code of Conduct</u>.

CLASS ATTENDANCE

The University's attendance policy requirement is that individual faculty set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

CLASS PARTICIPATION

Regular class participation is expected. Students who fail to participate in class regularly are inviting scholastic difficulty. A portion of the grade for this course is directly tied to your participation in this class. It also includes engaging in group or other activities during class that solicit your feedback on homework assignments, readings, or materials covered in the lectures (and/or labs). Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

CLASS RECORDINGS

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the <u>Student Code of Conduct</u>.

NOTE: if the instructor records any part of the course, then the instructor will need to add the following syllabus statement:

The instructor may record meetings of this course. These recordings will be made available to all students registered for this class if the intent is to supplement the classroom experience. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law.

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."

ACADEMIC SUPPORT RESOURCES

The information contained in the following link lists the University's academic support resources for all students.

Please see http://go.utdallas.edu/academic-support-resources.

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 review the catalog sections regarding the <u>credit/no credit</u> or <u>pass/fail</u> grading option and withdrawal from class.

Please go to <u>http://go.utdallas.edu/syllabus-policies</u> for these policies.

THE DESCRIPTIONS AND TIMELINES CONTAINED IN THIS SYLLABUS ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE PROFESSOR