CS1336.003 – PROGRAMMING FUNDAMENTALS FALL 2022 SYLLABUS

CONTACT INFORMATION

Professor: Khiem Le, Ph.D. Office: ECSS 3.703

Office phone: 972-883-6217 (use MS Teams to call)

Email: <u>kvl140030@utdallas.edu</u> (best way to reach me)

Always use your UTD email account and include CS1336.003 in the subject

Lecture: Tuesdays and Thursdays, 8:30 to 9:45 AM, ECSS 2.312

Office hours: By appointment, on Blackboard Collaborate. See "Procedures" on eLearning for details.

Grader: TBD

Email: Office hours:

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

This course has no prerequisite, but it has a co-requisite: CS1136 (a companion lab section).

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. This subscription is separate from the zylabs subscription in CS1136. Follow these steps to subscribe:

- Logon to elearning
- 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**. Students may begin subscribing on Aug 08, 2022 and the cutoff to subscribe is Dec 04, 2022. Subscriptions will last until Jan 03, 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

COURSE DESCRIPTION

Programming Fundamentals (3 semester credit hours) Introduction to computers. Primitive data types, variable declarations, variable scope, and primitive operations. Control statements. Methods/functions. Arrays, and strings using primitive data arrays. Output formatting. Debugging techniques. Designed for students with no prior computer programming experience. This class cannot be used to fulfill degree requirements for majors in the School of Engineering and Computer Science. Note that a grade of C or better is required in order to register for CS 1335 or CE/CS/TE 1337.

STUDENT LEARNING OBJECTIVES

The learning objectives of this class are:

- 1. Develop algorithmic solutions for use on computers
- 2. Perform console input and output, know data types, utilize basic operators, and perform sequential processing
- 3. Utilize the basic control structures for selection logic
- 4. Utilize the basic control structures for repetition logic
- 5. Perform sequential file input and output
- 6. Develop programs in a functional form
- 7. Process data in arrays

GRADING

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

Test #1 score: 35%
Test #2 score: 35%
Homework average: 15%
Quiz average: 5%
Class participation: 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. In addition, if you are <u>borderline</u>, at my discretion, I may decide to bump you up based on considerations such as active involvement in class (see "Class participation and involvement" section).

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

Important notes:

- If your homework average is less than 70, your letter grade will be min(C-, grade mapped from score using the table). For example, if your score is 68, your grade will be D+. 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-.
- A grade of C or better in CS 1336 is a prerequisite for CS 1337.

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 72 hours prior to the test through this link: https://ets.utdallas.edu/testing-center/students/. 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. You submit them to zylabs by 11:59 PM on the day of the lecture. To get credit, use the links on eLearning to submit, do not go straight to zyBooks.com.

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 at the normal time or alternate time 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.

In addition, if you are borderline, I may decide, at my discretion, to bump you up based on your participation score and other considerations such as:

Active involvement (asking questions, contributing to discussions, answering other students'
questions) during the lectures or on the Piazza discussion forum

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 guiz 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 Getting Started with eLearning. Tutorials can be found at Student eLearning Tutorials.

LECTURES

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.

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):

piazza.com/utdallas/fall2022/cs1336f22

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 team@piazza.com.
- 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)

The chapters are the Gaddis textbook chapters.

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	Date	Lecture – Chapters are Gaddis textbook chapters			
1	Aug 23	Review of syllabus, introduction and textbook chapter 1			
2	Aug 25	Review of syllabus, introduction and textbook chapter 1			
3	Aug 30	Chapters 2 and 3			
4	Sep 1	Chapters 2 and 3			
5	Sep 6	Chapters 2 and 3			
6	Sep 8	Chapters 2 and 3			
7	Sep 13	Chapters 2 and 3			
8	Sep 15	Chapters 2 and 3			
9	Sep 20	Chapter 4			
10	Sep 22	Chapter 4			
11	Sep 27	Chapter 4			
12	Sep 29	Chapter 4			
13	Oct 4	Chapter 6			
14	Oct 6	Chapter 6			
15	Oct 11	Cushion			
16	Oct 13	Test review			
17	Oct 18	Test #1 at the Testing Center – No lecture on that day			
18	Oct 20	Chapter 6			
19	Oct 25	Chapter 6			
20	Oct 27	Chapter 5			
21	Nov 1	Chapter 5			
22	Nov 3	Chapter 5			
23	Nov 8	Chapter 5			
24	Nov 10	Chapter 5			
25	Nov 15	Chapter 7			

26	Nov 17	Chapter 7
	Nov 22	Fall break
	Nov 24	Fall break
27	Nov 29	Chapter 7
28	Dec 1	Chapter 7
29	Dec 6	Cushion
30	Dec 8	Test review
	Dec 12	Test #2 at the Testing Center – 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 <a href="mailto:credit/no credit/no credit/n

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