CS1337.011 – COMPUTER SCIENCE I
SPRING 2019
SYLLABUS

CONTACT INFORMATION

Professor: Khiem Le, Ph.D.
Office: ECSS 3.703
Office phone: 972-883-6217
Email: kvl140030@utdallas.edu (best way to reach me)
Lecture: Tuesdays and Thursdays, 1:00 to 2:15 PM @ECSS 2.312
Office hours: Tuesdays and Thursdays, 5:30 to 6:30 PM, or by appointment

Grader: TBD
Email: TBD
Office hours: TBD
Location: TBD

Note: Email is the best way to reach me. Make sure you always use your UTD email account and include the class number and section (e.g. CS1336.XXX, where XXX is the section number), and remember to sign your email. That will help me respond to you sooner. I will not respond to any mail not sent from a UTD email address, as I have to verify you are my student.

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++.

PREREQUISITES AND COREQUISITES

Prerequisite: CS 1336 with a grade of C or better or equivalent.

TEXTBOOK AND MATERIAL

Reference textbook: Starting Out With C++, From Control Structures through Objects, Ninth Edition, by Tony Gaddis, Addison Wesley, 2018.

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

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. For example, if you have an overall numerical score of 91 before curving, you are guaranteed to get at least A-.

In addition, if you are borderline, at my discretion, I may decide to bump you up based on considerations such as

• Class attendance and citizenship

• Your seeking help from tutoring resources when needed. Resources include the Computer Science Mentoring Center (CSMC), see "Assistance" section for details. If you go to the CSMC, make sure your going to the CSMC is recorded.

• Improvement throughout the semester

Overall numerical score (possibly curved)	Grade
≥97	A+
≥93	A
≥90	A-
≥87	B+
≥83	B
≥80	B-
≥77	C+
≥73	C

≥70	C-
≥67	D+
≥63	D
≥60	D-
Less than 60	F

Important notes:

- **In order to receive a grade higher than a C-, you must have a homeworks average of at least 70%.**

- **According to the CS department attendance policy (http://cs.utdallas.edu/education/undergraduate/attendance-policy/), if you have three consecutive unexcused absences, your grade will be automatically downgraded by one letter grade. For example, an A- would be downgraded to a B-. If you have 4 consecutive unexcused absences, your grade will automatically be an F.**

TESTS

- Each test covers all the handouts + information given during lectures + homeworks + class discussions + exos + quizzes, up to the exam. This means test #3 is a comprehensive exam

- Electronic devices (e.g. computers, laptops, cell phones, tablets) and backpacks will not be allowed at desks during tests

- Closed book, closed notes

- Tests are taken on eLearning. Types of questions that may be found in tests are essay, true/false and multiple choice questions. By essay, I mean any question for which you do not answer simply by checking a box

- Each test is graded out of 100

- **You are required to take the tests on the regular date. Exceptions to this policy are only made in very rare circumstances, typically due to unforeseen circumstances such as a medical or family emergency. All makeup exams are scheduled and given at the discretion of the instructor.** They are only given to students who contact the instructor prior to the originally scheduled exam date/time, or for a justified emergency with documentation.

HOMEWORKS

- Homeworks are programming projects 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 for grading.

- All homework assignments will be submitted to the zyLabs auto-grading tool. When you submit for grading, the zyLabs auto-grader automatically runs your program on predefined

test cases, and immediately provides a zylabs score to you. In response, you can immediately determine and fix mistakes, and resubmit to improve your score. Another part of your total score will be determined manually by the grader. Your total score, along with the grader's feedback, is posted on eLearning.

- You will need a zyLabs subscription, and details on the zyLabs subscription can be found in the "zyLabs" section below.

- Each individual homework assignment will be graded out of 100.

- For details on what is expected from you for the homeworks, refer to "Homework Notes" posted on eLearning.

- The homeworks average is the average of the individual homework scores.

SUBMISSION POLICIES

- An assignment that is turned in late, but is still within the first 24 hours after the due date, will receive a 20% penalty on the grade. That is, the homework is graded normally, and the score is multiplied by 0.80 to yield the actual score for that homework. Assignments more than 24 hours late are not accepted.

- For some specific homeworks, it could be that 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 using web sites on the Internet for help on projects. 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.

QUIZZES

- Quizzes usually take place about a week after a section or chapter has been completed.

- They are designed to give you a gauge as to how well you grasped the material, and prepare you for the tests and homeworks.

- Quizzes are taken in class and could be true/false, multiple choice or essay questions. The questions relate to the key points of the section or chapter that has been covered

- 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. The average is normalized to be a score out of 100. For example, assume there are 3 quizzes, and quiz-1, quiz-2 and quiz-3 have 10, 20 and 30 questions respectively. If each question is 5 points, the maximum achievable scores of quiz-1, quiz-2 and quiz-3 are 50, 100 and 150 respectively. The quizzes average will be $(s1+s2+s3)*100/(50+100+150)$, where s1, s2 and s3 are your scores on quiz-1, quiz-2 and quiz-3 respectively.

IN-CLASS EXOS

I often teach the programming concepts by illustrating them with a live program that I type, compile and run as a demonstration in class. You will be asked to type, compile and run the same program along with me in class, and to submit your program on eLearning before the end of the lecture. Your program will not be graded, the main purpose of the exos are to engage you in the learning and take your attendance. **It is not critical that your program compiles. It is more important that you pay attention and listen than trying to make your program work.** If the classroom is not equipped with a PC for each student, I strongly recommend you bring your own personal laptop. Another means to take your attendance will be used if you cannot bring your laptop.

CLASS ATTENDANCE AND CITIZENSHIP

- Class attendance

    o Students who regularly attend class tend to make significantly higher grades than those who do not.

    o Attendance record is based on quiz participation and in-class exo submissions. At my discretion, other means to take attendance may be used.

- Citizenship

    o Good citizenship, which is behavior demonstrating effort to learn and respect of other students' effort to learn

    o You are encouraged to participate in class discussions and ask questions, whether in class or out

    o Disruptive behavior in class is not tolerated.

    o You are expected to be on time and stay till the end of the lecture. If you ever need to leave early or come late, you must minimize disruption to the lecture.

- Class attendance and behavior will be a consideration for possibly bumping you up if you are a borderline case.

- Some absences are automatically excused by the school and won't count against you. These include absences for sporting events (if you're a member of a UTD sports team) and other situations. If any of these apply to you, you have to contact me beforehand and we'll make arrangements for it. In addition, absences for medical reasons will be excused with documentation.

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 and quiz 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 test scores.

ASSISTANCE

You are encouraged to go to the Computer Science Mentoring Center (CSMC) if you need tutoring or help on the assignments. The CSMC provides tutoring on a walk-in basis. Details on the CSMC location and schedule can be found at https://csmc.utdallas.edu/.

You can also see me or the grader at office hours, or by appointment.

Note you must have put effort into solving your problem before you seek help. That will make the tutoring more effective than if you come with a blank sheet of paper.

Study groups are also an option, but make sure you comply with the Academic Integrity policy and your submission is the product of your individual effort.

COURSE TOOLS

COMMUNICATION

Assignments, 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**.

PROGRAMMING TOOLS

You will submit your homeworks to zylabs, which will automatically compile and run your code against various test cases to determine a grade for the compilation and execution part of the total homework grade.

You may use the Integrated Development Environment (IDE) and associated compiler of your choice to develop your programs, but you should be aware that different compilers may behave differently, and your program may compile without error or warning with your compiler, but have compilation errors or warnings when compiled on zylabs. zylabs will notify you immediately of any compilation issue, and you will have a chance to fix your program and resubmit. **It is your responsibility to fix your program so that it can be compiled by zylabs.** To minimize compilation issues with zylabs, use the compiler settings in "Homework notes".

If you intend to use your own computer to write the code, it is important to get an IDE downloaded, installed, and running on your computer as soon as possible. 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. If you don't have a computer, or if you're having problems getting a compiler installed, you may write your programs in the UTD PC 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 personal machines will not be accepted as an excuse for not doing the assignments or late submissions.

ZYLABS

You need to subscribe to zyLabs to be able to use zyLabs. Please do the following to subscribe to zyLabs:

1. Sign in or create an account at learn.zybooks.com. **Use your UTD e-mail address** (netid@utdallas.edu). **If you have a UTD email alias (such as khiem.le@utdallas.edu), do not use it**. You will need to create a password for this account, **do not reuse your UTD e-mail password**.

2. Enter zyBook code: UTDALLASCE1337CS1337TE1337LeSpring2019

3. Subscribe

4. Your section number is 011.

A subscription is **$19** and will last until May 24, 2019. You will be able to subscribe until April 22, 2019, but you should subscribe before the first homework. You can also buy the zylabs subsription through the UTD bookstore, which may give a discounted price.

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/

SCHEDULE (MAY BE ADJUSTED AS NEEDED)

- From Jan 15 to Feb 14: Review of syllabus, chapters 8, 9, 10, 11, review for test #1.
- **Test # 1: Feb 19, at the Testing Center**. Test is one hour. **Go to** https://www.registerblast.com/utdallas/Exam/List **to sign up for a one hour slot between 1 and 3 PM**
- From Feb 21 to Mar 28: Chapter 13, 14, review for test #2. (No class on Mar 19 and Mar 21 due to Spring break)
- **Test # 2: Apr 2, at the Testing Center**. Test is one hour. **Go to** https://www.registerblast.com/utdallas/Exam/List **to sign up for a one hour slot between 1 and 3 PM**
- From Apr 4 to May 2: chapters 15, 16, and as time permits, additional material. Review for test #3.
- **Test # 3: May 7, at the Testing Center.** Test is one hour. **Go to** https://www.registerblast.com/utdallas/Exam/List **to sign up for a one hour slot between 1 and 3 PM. Test # 3 is the Final exam**.

Go by the above test schedule and not what is posted on Galaxy.

UNIVERSITY'S POLICIES AND PROCEDURES

Please go to http://go.utdallas.edu/syllabus-policies for information on the university's policies and procedures, which include in particular:

- Student Conduct & Discipline
- Academic Integrity
- Withdrawal from Class
- Student Grievance Procedures
- Incomplete Grade Policy
- Disability Services
- Religious Holy Days

These descriptions and topics are subject to change at the discretion of the Instructor.