CS1336.501 – Programming Fundamentals
Fall 2016
Syllabus

Contact Information

Professor: Khiem Le, Ph.D.
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Lecture: Tuesdays and Thursdays, 5:30 to 6:45 PM@ECSS 2.312
Office hours: Posted on eLearning

Grader: TBD
Email:
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Note: Email is the best way to reach me, and your email must have a subject title starting with "CS1336.501". Remember to sign your email, so I know where it is coming from. That will help me respond to you sooner.

Course Description

Programming Fundamentals. 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.

Prerequisites and Corequisites

No prerequisite.
Corequisite: CS1136 (a companion lab section)

Required Textbook and Material

Textbook

Starting Out With C++, From Control Structures through Objects, Eighth Edition, by Tony Gaddis, Addison Wesley, 2015.

Additional course materials, such as assignments, sample programs, and other materials will be provided as needed through eLearning at http://elearning.utdallas.edu.

Student Learning Objectives

Our goal this semester is to cover specifically Chapters 1 through 7 in the Gaddis text. After successful completion of this course, the student should be able to:

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 with the weights below:

Weight of test #1 score: 35%
Weight of test #2 score: 35%
Weight of homeworks average: 25%
Weight of quizzes average: 5%

The overall numerical score is possibly curved and then converted to a letter score, as follows. If there is curving, it 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 underline, at my discretion, I may decide, at my discretion, to bump you up based on considerations such as:

- Class attendance and citizenship
- Your going to the Computer Science Mentoring Center (CSMC) to get help when needed. If you go there, make sure your attendance 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 D+, you must meet both of the following requirements: (1) have a test average of at least 70 points AND (2) have a homeworks average of at least 70 points.
- According to the new CS department 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.

According to the university catalog a grade of C or better in CS 1336 is a prerequisite for CS 1337.

Tests

- Each test covers all the handouts + information given during lectures + homeworks + class discussions + exos + quizzes, up to the exam. This means test #2 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 to supplement our class discussions and the textbook, and give you an opportunity to practice the concepts learned. You will have a week to do each one.
- All homework assignments will be submitted to eLearning. The TAs will download them, grade them, and upload the resulting grade with comments in the "Feedback to Learner". Read the "Feedback to Learner" to learn about what mistakes, if any, you made so you can learn from your mistakes
- Each individual homework assignment will be graded out of 100.
- The homeworks average is the average of all 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.
- 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. Non observance of these rules may be considered as academic dishonesty and handled accordingly. There are no group assignments in this class.

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 1 point, the maximum achievable scores of quiz-1, quiz-2 and quiz-3 are 10, 20 and 30 respectively. The quizzes average is $(s1+s2+s3)*100/(10+20+30)$, 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 you will have 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.

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 the discretion of the instructor, 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.

All homework assignments will be graded by the TA's. Therefore, if you have any questions concerning the homework gradings, please speak with the TA about it first. Please copy me on all your emails with the TA so I am aware of the situation and can make sure it is resolved. Note that even if you were to approach me first, we would still have to go back to the TA to find out what happened. Consequently, it will save time on all sides if you simply start with the TA's when you are trying to resolve a homework related problem.

If for any reason you are dissatisfied with the result, please come see me about the issue and we will get it straightened out. You have every right to pursue any issue that concerns you. I'm on your side and will always work with you to find a reasonable solution.

We encourage you to be very proactive on this point. Any issue that concerns you also concerns us by definition, and we will do whatever we can to help you. But you must take responsibility for addressing the issues in the first place. In general, it is very important to understand why you missed any points, whether on homework assignments or on an exam.

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 logon to eLearning and check your UTD email to stay abreast of assignments, announcements and other information.

Programming Tools

All of the programs we write this semester will be in C++, and we will be using C++ compilers to generate them. It is not required that you use a particular C++ compiler. It is, however, essential for grading that the TA's are able to compile and run your programs on their machines. It is your responsibility to make sure your programs can be compiled by the TA.

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.

More details on the programming tools and the compiler will be posted on eLearning.

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/

CSMC

If you need tutoring, you are encouraged to go to the Computer Science Mentoring Center (CSMC). Tutoring is on a walk-in basis. Note you must have put effort into solving your problem before you seek tutoring help. Do not expect the tutors to solve your problem if you come with a blank sheet of paper.

Additionally, optional review sessions will be offered at the CSMC, where each session will focus on a particular textbook chapter. The schedules and location, once available, will be posted on eLearning. Your going to the CSMC to get help when needed will be a consideration for possibly bumping you up if you are a borderline case.

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.

Schedule (tentative, may be adjusted as needed)

Date		Lecture
Aug 23	1	Review of syllabus, introduction and textbook chapter 1
Aug 25	2	Review of syllabus, introduction and textbook chapter 1
Aug 30	3	Chapters 2 and 3
Sep 1	4	Chapters 2 and 3
Sep 6	5	Chapters 2 and 3

Sep 8	6	Chapters 2 and 3
Sep 13	7	Chapters 2 and 3
Sep 15	8	Chapters 2 and 3
Sep 20	9	Chapter 6
Sep 22	10	Chapter 6
Sep 27	11	Chapter 6
Sep 29	12	Chapter 6
Oct 4	13	Chapter 4
Oct 6	14	Chapter 4
Oct 11	15	Cushion for test review
Oct 13	16	Test review
Oct 18	17	Test #1 (at Testing Center) - Go immediately to http://www.registerblast.com/utdallas/Exam to reserve your seat
Oct 20	18	Chapter 4
Oct 25	19	Chapter 4
Oct 27	20	Chapter 5
Nov 1	21	Chapter 5
Nov 3	22	Chapter 5
Nov 8	23	Chapter 5
Nov 10	24	Chapter 5
Nov 15	25	Chapter 7
Nov 17	26	Chapter 7
Nov 22		Break
Nov 24		Break
Nov 29	27	Chapter 7
Dec 1	28	Chapter 7
Dec 6	29	Test review
Dec 13		Test #2 (at Testing Center) - Go immediately to http://www.registerblast.com/utdallas/Exam to reserve your seat

- Homeworks and quizzes take place throughout the semester.

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.