

Computer Science Fundamentals - CS 1319 - 251
Spring 2024
Class Syllabus

Instructor: Husain Ghooloom

E-mail: hag10@txstate.edu

Office: CMAL 301 F

CLASS TIME: MW 2:00 p.m. – 3:20 p.m. Trauth-Huffman Hall 310

Office Hours: MW 11:45 am - 2:00 p.m. (Virtual)

Other times by appointment only.

WEB PAGE: <http://husainghooloom.com/classes.html>

Course Description:

This course provides fundamental knowledge of the six layers of computer science as specified in the Association for Computing Machinery CS curriculum. The information, hardware, programming, operating system, applications and communications layer are presented along with appropriate open computer exercises. This is a breadth-first background course providing the information everyone should know about computers. No prerequisites.

Purpose:

This course is intended for anyone with no prior exposure to concepts unique to the field of computer science or those who take only a single computer science theory course as part of their college studies. It can be taken for a non-advanced science credit in all degree programs other than computer science (majors and minors) and math education.

Course Goals and Objectives:

If this is the only computer science course taken during college, it should provide a sound basis for future independent learning and general use and management of a microcomputer. It is a breadth first background course that contains knowledge and skill building exercises. The course provides an overview of computers from an inside-out approach beginning with underlying fundamental knowledge of historical developments and representational systems. The content consists of fundamental information required to understand the information, hardware, programming, operating system, applications and communications layers of computer systems. In addition the course exposes you to the new high level programming language.

Brief Course Outline:

1. Computer Systems - the big picture, historical developments, social impacts, limitations of computing.
2. The Information Layer - binary values and number systems, data representation.
3. The Hardware Layer - gates and circuits, computing components.
4. The Programming Layer - problem solving and algorithm design, low-level programming languages, high-level programming languages, abstract data types and algorithms.
5. The Operating System Layer - overview of operating systems, file systems, directories.
6. The Application Layer - information systems, artificial intelligence, simulations and other applications.
7. The Communication Layer - networks, the World Wide Web and Internet.
8. Introduction to high level programming language .

FINAL EXAM SCHEDULE:

C.S. 1319.251 Will be on: Monday May 6th, 2024
Exam Time: 2:00 pm - 4:30 pm

Final exams will be administered *only* on the day and at the time indicated in the university exam schedule.

GRADING POLICY:

- Attendance --- Required
- Assignments – 15 %
- Short Exams - 60%

- **Final Exam / Research / Project - 25 %**

Makeup Examinations will not given

Short Exams will be announced at least one week in advance.

No cell phones, recording/storage retrieval devices, tablets, laptops, or calculators are allowed during exams. A grade of zero will be recorded when any such device is determined to be in a student's possession during an exam.

GRADING SCALE:

Determination of letter grade in the course:

semester average ≥ 89.5 A
 $79.5 \leq$ semester average < 89.5 B
 $69.5 \leq$ semester average < 79.5 C
 $59.5 \leq$ semester average < 69.5 D
semester average < 59.5 F or U

ASSIGNMENT LATE POLICY: Assignments should be placed on the central desk **AT THE BEGINNING** of class on the day they are due. This does not mean fifteen minutes or ten minutes or even *five* minutes into the lecture. This means *at the beginning*. Regardless of the deadline set, there will always be people who want it extended.

For each 24-hour period that the assignment is late, your assignment grade will be eligible to receive 15% less points. For example, 24 hours beyond the deadline, your assignment grade would be capped at 85%, and 48 hours beyond the deadline, your assignment grade would be capped at 70%. After 48 hours (two days) beyond the deadline, you will receive zero points for the assignment .

Now that the deadline *for full credit* has been established, *please respect this deadline, and plan accordingly.*

*** To receive *any* credit for an assignment, assignment must be submitted *electronically* as well as in *paper* form. If both the paper and the electronic copy are not available to the grader on the date the assignment is due, a grade of zero will be assigned. The electronic copies *must* match the paper copies, or a grade of *zero* will be assigned.

Turning in work **early** is discouraged; however, if it is necessary to do so, bring the assignment, **with a note of explanation attached**, to the secretary of the Computer Science Department in the second floor of Comal Building (211).

Each time you turn in an early assignment to CS Department, *remember to have the secretary initial each assignment plus note the date and time that each assignment was turned in, or NO credit will be assigned.* (This policy is *NOT* designed for students who fail to attend the lecture and the work of repeat ‘offenders’ will no longer be accepted early.)

Each time you turn in an early assignment to the CS Department – Comal 211 , it is *highly* recommended that you send an e-mail to your instructor as well.

NO CREDIT WILL BE GIVEN TO ASSIGNMENTS PLACED UNDER MY OFFICE DOOR OR TO THOSE ATTACHED OUTSIDE MY OFFICE DOOR VIA TAPE, TACKS, ETC.

ALLOW FOR NATURAL DISASTERS! The computer system used may ‘go down’, the printer queues may be ‘backed up’ on the day an assignment is due, the bus was late, flash drives may have been left ‘somewhere’, etc. These types of events do *NOT* excuse late work.

GRADE DISPUTES: Must be handled *in my office* and *must* be discussed within *three days* of the return of the graded homework during regularly scheduled class time. (This means within *three days* from the date the assignment is *returned*. It does *NOT* mean three days from the date *you* decide to pick up the returned assignment.) You may *show* me a problem related to your grade at the front desk in the classroom *after* a lecture; however, for complete discussion and possible resolution, you *must* come by the office where all records are readily available. *Come prepared with the graded assignment in hand, and be able to access the electronic version of your work from my office.*

KEEP all graded lecture assignments / exams (especially the electronic / hard copies) until you have received a grade in the course you are willing to live with. This will help argue your case in the event of a grade discrepancy. You will need proof of your work in both an electronic and a graded paper form. *(Without the ability to access the electronic copy of your work from my office at the time of your grade dispute, the grade on record stands as is.)*

ACADEMIC OFFENSES:

All assignments submitted for a grade should reflect the work of the *individual* student unless otherwise established in writing by your instructor. Violations will be dealt with according to Academic Procedures and Policies as outlined in the **Texas State Student Handbook**.

Go to <http://www.dos.txstate.edu/handbook.html>, and click on **Academic Honor Code**.

review **Academic Offenses** and the **Penalties for Academic Dishonesty** that those procedures listed below may have been updated without my express knowledge.

E-MAIL: Notifications , inquires , questions ... etc that are related to this class will be send and received **only** via **Texas State e-mail account**.

ABSENCE POLICY: Class attendance *is required*. *Should you miss a class , then* you will be held responsible for material covered in the lectures. Some of the material covered in lectures may not be readily available elsewhere. You will also be responsible for obtaining assignments and notes *from fellow classmates* for any days missed.

If you choose to attend class, plan on staying the *entire* time *unless* you inform the instructor *in advance* that you will be leaving early.

I will record attendance every day and I expect you to be in class every day. A 50% - 70% overall attendance will result in a "loss of one letter grade". A < 50% overall attendance will result in a grade that is not better than D assuming that you have a passing combined score, otherwise you will get a grade F or U.

Except where permission is specifically granted, all electronic devices, including computers, cell phones, pagers, etc. should be kept out of sight and turned off; or, in the case of cell phones, on vibrate during lecture. Watching someone constantly reading/sending e-mail, checking a Facebook account, tweeting, texting or checking their phone for messages is distracting at best, so don't do it! If you are expecting a 'contact' that falls under the 'emergency' category, set your phone, pager, etc. to vibrate, and let your instructor know in advance that you might have to leave the classroom in order to deal with a possible 'situation.'. Students are required to remove all head coverings during lectures, or major exams.

If you are **absent** at the time of a *an exam*, a grade of zero will be recorded for that exam.

DROP POLICY: (Refer to the [Academic Calendar](#)).

- Official 12th Class Day / Last Day to Drop with **100% Refund - January 31st, 2024.**
- Automatic "W" deadline and last day to drop a class ends **11:59 p.m. Tuesday, March 26th, 2024.**
- Last opportunity to *withdraw* from the University ends **11:59 p.m. Thursday, April 18th, 2024.**
- Students who withdraw from the University after the automatic "W" date will be assigned a "W" or an "F" or an "U" based on class performance up to that point in the semester. A "W" will be assigned **only** if the class average is *passing* on the day the withdrawal procedure is **officially completed.**

Note: Contact the Registrar's Office as to the proper procedure to follow in order to successfully complete the drop/withdrawal process. If you decide to withdraw from the University *after* the automatic "W" date previously mentioned, be sure to check with your instructor *prior* to completing the withdrawal procedure in order to verify whether you will be receiving a "W" or an "F". Contact the Registrar if you have any further questions.

It is *your* responsibility to make sure the drop/withdrawal process is complete. Do *not* come to me later and say that you "thought" you had dropped but the process did not "go through" expecting me to change a grade of 'F' to a 'W'. Be sure to check your revised schedule to make sure the course dropped is no longer listed.

ADA Compliance: Students with special needs as documented by the Office of Disability Services who require accommodations should identify themselves to the instructor as soon as possible but no later than the **12th class** meeting in a long session and no later than the 4th class meeting during a regular summer session. Students with special needs who have not already done so will be required to contact the Office of Disability Services in order to establish accommodation. Every effort will be made to secure the necessary accommodation to facilitate students with special needs/disabilities in order to enhance their performance in the classroom.