CSE1320 Intermediate Programming Summer 2024

(subject to change prior to the first day of class)

Instructor Information

Instructor:

Jason Losh, Ph.D.

Office Number:

ERB 649

Office Telephone Number:

+1 817-272-3785 (CSE Department)

Email Address:

ilosh@uta.edu

Faculty Profile:

https://mentis.uta.edu/explore/profile/jason-losh

Office Hours / Help Sessions:

Office hours will be held before and after each class in ERB 130-131 area, since this time and place is most convenient to students. Appointments are also available as needed.

Grader:

Zahidur Rahim Talukder, <u>zahidurrahim.talukder@mavs.uta.edu</u> Hours will be sent on the course listsery.

Course Information

Section Information:

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Time and Place of Class Meetings:

MW 1:00-2:50pm in ERB 131

This is a 100% face-to-face course. This is not an online course.

Attendance is required for this course on the following 10 days:

June 5, 12, 26; July 3, 10, 17, 24, 31; August 7, 8 (August 8 is tentative date for final)

Attendance on the other class days is expected.

Description of Course Content:

Programming concepts beyond basic control and data structures. Emphasis is given to data structures including linked-lists and trees as well as modular design consistent with software engineering principles. Prerequisite: C or better in CSE 1310 and C or better in (or concurrent enrollment in) (MATH 1421, MATH 1426, MATH 2425, MATH 2326, MATH 3330, HONR-SC 1426, or HONR-SC 2425) and C or better in UNIV 1131 (or concurrent enrollment) or ENGR 1101 (or concurrent enrollment.).

Student Learning Outcomes:

Upon successful completion of this course, students should

Understand how a program is executed line-by-line, from beginning to end.

- Be able to specify the value of any variable at any point in the execution.
- Be able to specify the output of the program.
- Be able to read and write C program with up to 250 lines
- Have gained exposure to the Linux operating system
- Have learned to write code that is general and scalable if the amount of data changes, the program should not need to be rewritten
- Have gained knowledge of fundamental programming concepts

Class Web Page:

Additional files will be provided as needed on the course web site at http://ranger.uta.edu/~ilosh.

Communication:

All class-wide communication by the instructor, including distribution of homework sets, will occur via the class listserv. If you are enrolled prior to the first day of class, you will be added to the listserv automatically. If you add on or after the first day of class, please sign up for the CSE1320-L listserv by sending an e-mail from your UTA e-mail account to listserv.uta.edu from your UTA e-mail account (no subject line needed) and the command SUBSCRIBE CSE1320-L as the message body. You will then receive an e-mail from the listserv server to which you must acknowledge to join the listserv with "OK" in an e-mail.

Textbooks and Other Course Materials:

C By Discovery, 4th Edition, Foster & Foster, ISBN 978-1-576-76170-0 (recommended)

Major Assignments and Examinations:

Quiz 1 (Wednesday, June 5)

Departmental Skills Assessment Test (opens Thursday, June 6 @ 6:00pm)

Quiz 2 (Wednesday, June 12)

Test 1 (Wednesday, June 26)

Quiz 3 (Wednesday, July 3)

Quiz 4 (Wednesday, July 10)

Test 2 (Wednesday, July 17)

Quiz 5 (Wednesday, July 24)

Quiz 6 (Wednesday, July 31)

Quiz 7 (Wednesday, August 7)

Final (Thursday, August 8 @ 1:00pm) - tentative since UTA has not yet published the schedule

Technology Requirements:

If a student cannot use the computer resources on campus, a computer will also be needed to use Pulse Secure VPN software and the Omega server.

Current computer recommendations are available at

https://www.uta.edu/academics/schools-colleges/engineering/students/student-computer.

Grading Information

Grading:

- Grade scale: A (90-100), B (80-89), C (70-79), D (60-69), and F (0-59)
- Grade calculation: Department Skills Assessment Test (10%), Test 1 (20%), Test 2 (20%), Final (20%), Quizzes (30% for average of best 6 of 7),
- The instructor reserves the right to make reasonable changes in performance evaluation as needed.
- Any request for re-grading must be submitted to the Grader within one week of the completion of grading. If, after requesting a re-grade from the Grader and getting a response, you may refer the case to the instructor if you think further action is needed.

Expectations for Out-of-Class Study:

As a general rule of thumb, for every credit hour earned, a student should spend 3 hours per week studying outside of class. Hence, for this 3-credit course, a minimum expectation of 9 hours of study is expected.

Departmental Skills Assessment Test:

- All CSE 1320 students will take the CSE 1320 Skills Assessment Test during the first week of classes in June.
- The test is online and will be open from 6pm on June 6^h to 11:59pm on June 7th (~30 hour window). The test is worth 10% of the grade in CSE 1320.
- Study guides and videos are available on the CSE13xx site.

Tests and Final Exam:

- Tests and the final exam are on-campus
- To improve learning outcomes, tests and the final exam are closed-book, no notes allowed
- A calculator without data storage (except a single value) is allowed.
- No makeup will be provided for any Test or Final missed. Generally, you can request an incomplete in the course and makeup the missed test in the following semester.

Quizzes:

- Quizzes are on-campus
- To improve learning outcomes, quizzes are closed-book, no notes allowed
- A calculator without data storage (except a single value) is allowed.
- No makeup will be provided for any guiz missed.
- The lowest guiz grade will be dropped.

Homework:

- Homework is assigned to help you master the student educational outcomes required for the course. It is important to work the homework so that you will perform well on the quizzes, exams, and in subsequent courses.
- Due to the presence of web sites that provide solutions to homework sets, homework will be assigned but not collected this semester. A solution will be provided by the grader after each homework deadline has passed.

Course Schedule

- Syllabus and Introductions (0.5 hr)
- C Standards Overview (C89/C99/C11) (0.5 hr)
- Integer and Floating-point Numbers, Simple Data Types (2 hrs)
- Introduction to C Language (4 hrs)
- Variables Types (2 hrs)
- Using Printf and Scanf (2 hrs)
- File I/O (2 hrs)
- Simple Programming Examples (2 hrs)
- Pointers and Dereferencing (2 hrs)
- Arrays and Matrices (2 hrs)
- Structures (2 hrs)
- Heap Memory and Dynamic Memory Allocation (2 hrs)
- Recursion (2 hrs)
- Linked Lists (4 hrs)
- Binary Trees and Inorder, Preorder, and Postorder Transversals (4 hrs)

The instructor reserves the right to make changes in the schedule as needed as the class progresses.

The official dates for registration, census, and dropping are available at www.uta.edu/acadcal.

Academic Integrity

This information is copied from http://www.uta.edu/conduct/academic-integrity/index.php.

The University of Texas at Arlington strives to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and responsibility. Furthermore, it is the policy of the University to enforce these standards through fair and objective procedures governing instances of alleged dishonesty, cheating, and other academic/non-academic misconduct.

Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, and collusion on an examination or an assignment being offered for credit. Each student is accountable for work submitted for credit, including group projects.

- Cheating
 - Copying another's test or assignment (added note: remember this includes homework!)
 - Communication with another during an exam or assignment (i.e. written, oral or otherwise)
 - o Giving or seeking aid from another when not permitted by the instructor
 - o Possessing or using unauthorized materials during the test
 - o Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key
- Plagiarism
 - Using someone else's work in your assignment without appropriate acknowledgment
 - o Making slight variations in the language and then failing to give credit to the source
- Collusion
 - o Without authorization, collaborating with another when preparing an assignment

Institution Information

UTA students are encouraged to review the below institutional policies and informational sections and reach out to the specific office with any questions. To view this institutional information, please visit the Institutional Information page

(http://www.uta.edu/provost/administrative-forms/course-syllabus/index.php) which includes the following policies among others:

- Drop Policy
- Disability Accommodations
- Title IX Policy
- Academic Integrity
- Student Feedback Survey
- Final Exam Schedule

Additional Information

Face Covering Policy:

While face coverings are not mandatory, all students and instructional staff are welcome to wear face coverings while they are on campus or in the classroom.

Attendance:

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator of student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report must the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Canvas. This date is reported to the Department of Education for federal financial aid recipients.

Attendance is required for this course on the following 10 days: June 5, 12, 26; July 3, 10, 17, 24, 31; August 7, 8 (August 8 is tentative date for final)

In this course, attendance in-class, on campus is expected.

Emergency Exit Procedures:

Should we experience an emergency event that requires evacuation of the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, do not take an elevator but use the stairwells instead. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Academic Success Center

The Academic Success Center (ASC) includes a variety of resources and services to help you maximize your learning and succeed as a student at the University of Texas at Arlington. ASC services include supplemental instruction, peer-led team learning, tutoring, mentoring and TRIO SSS. Academic Success Center services are provided at no additional cost to UTA students. For additional information visit:

<u>Academic Success Center</u>. To request disability accommodations for tutoring, please complete this <u>form</u>.

Emergency Phone Numbers

In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381