CSE 1320: Intermediate Programming
Fall 2016

Instructor(s): Christopher Conly

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Office Hours: Tue / Thu, 12:30pm – 2:00pm

Section Information: CSE 1320-003

Time and Place of Class Meetings: Mon / Wed / Fri, 2:00pm – 2:50pm

TA Information: TBD

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: CSE 1105, CSE 1310 or CSE 1312, and MATH 1421 or MATH 1426 (or concurrently).

Student Learning Outcomes: After successfully completing this course, a student should be able to write programs in the C programming language at a medium level of complexity. The student will be familiar with basic data structures and their usage as well as with the Linux operating system.

Required Textbooks and Other Course Materials: Intermediate C Programming, Lu. ISBN: 9781498711630

Assignments: There will be several programming assignments in this course, typically assigned on a weekly basis. All assignments will have equal weight. No assignment scores will be dropped. The following class policies regarding assignments will be followed:

- All assignments must run on omega.uta.edu. You can develop using whatever platform and IDE you wish, but the code must compile and run on omega.
- All assignments must be submitted via Blackboard.
- No extra credit will be provided.
- If you make multiple submissions to Blackboard for the same assignment, only the latest submission will be graded.
- **After you submit your solutions, you should download them and make sure that you submitted the correct files**. Every semester, several students ask for leniency, claiming that they did the assignment, but accidentally submitted the wrong files. These claims are often legitimate, but, unfortunately, no grade leniency will be accorded to such claims. It is each student's responsibility to double check their submissions.
- **If, for whatever reason, you cannot submit on Blackboard, e-mail your solution to the instructor and the TA(s), from your UTA account, BEFORE the submission deadline.** This will serve as proof that you did the work. You still have to offer a very convincing explanation as to why you were not able to submit on Blackboard.

Students are allowed to work with fellow CSE 1320 students on the assignments. At the same time, learning to solve problems on your own is the most important practice for the midterm and final exams.

Late submission policy

- All assignments are graded out of 100 points. Assignments submitted late will be penalized, at a rate of 4 penalty points per hour. The submission time will be the time shown on Blackboard. Any assignment submitted more than 25 hours late will receive no credit.
- Exceptions to late submission penalties will only be made for emergencies documented in writing, in strict adherence to UTA policy. For all such exception requests, the student must demonstrate that he or she made all efforts to notify the instructor as early as possible.
- Computer crashes, network crashes, software or hardware failure, Blackboard failure, e-mail failure, will NOT be accepted as justification for late submissions. If you want to minimize chances of a late submission, aim to submit early. You can always revise your submission till the deadline.
- Sometimes students submit the wrong files on Blackboard. Unfortunately, no credit or waiver of late penalties can be provided in such cases.
- If you find yourself in an emergency situation and cannot deliver a homework on time, immediately inform the instructor and teaching assistant. Even if you have a valid reason for delivering late an assignment, you must make a convincing case that you have notified the instructor and teaching assistant as early as possible.

If you want to minimize chances of a late submission, aim to submit early. You can always revise your submission till the deadline.

Exams: There will be three midterms and one final exam in this course, each of which will have an equal weight of 22% of your final grade. No exam scores will be dropped, and no make-up exams will be offered.

All exams are open-book, and students are free to bring any printed or handwritten material (textbooks, notes, etc.) to consult during the exam. Students will not be allowed to bring in any electronic aids, including pocket calculators, laptops, e-books, cell phones. **Students are not allowed to talk or otherwise communicate with other students during an exam. No sharing of books, notes, or other objects is allowed during an exam. Students should leave empty seats between them, if at all possible.**

Absence from exams may be excused, with appropriate documentation, for illness, critical family emergencies, military service obligations, observance of major religious holidays, and certain university service commitments. Car or transportation problems will NOT be considered a legitimate reason to miss an exam. **Requests for excused absence, and documentation for such absences, must be provided as soon as possible. Even if the reason for an absence is valid, a request for an excused absence will be rejected if provided unjustifiably late.**

Attendance: At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in 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. As the instructor of this section, I will follow the following attendance policy: Attendance is mandatory for exams (midterms and final), but NOT for lectures. Attendance in lectures will NOT be used in calculating the semester grade. However, students are responsible for the material covered in the lectures. The instructor and teaching assistants will NOT honor requests to fill students in on what they missed in class, unless the absence was justified by an emergency.

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 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 Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

Attendance is required for exams. Absences for exams will only be excused for medical or other emergencies in strict adherence with UTA policy. All emergencies must be reported as early as possible and **documented in writing**. No make-up exams will be given.

Transportation problems (e.g. flat tires) will NOT be considered a valid excuse for missing exams. To ensure attendance, plan to arrive for class well in advance, and have backup transportation plans available.

Grading: Assignment scores and exam scores are converted to letter grades based on the following scale:

- A: 90%
- B: 80%
- C: 70%
- D: 60%
- F: below 60%.

The instructor reserves the right to lower these thresholds, based on the distribution of scores and the degree of difficulty of the assignments and exams.

The exam average will be worth a total of 88% of the grade. The homework average will be worth 12% of the grade.

Grade Grievances: Any request for re-grading (for an assignment or midterm exam) must be made within 5 days of receipt of that grade. Any request for re-grading the final exam must be made within 3 days of receipt of that grade. Re-grading can lead to a higher or lower grade, depending on grading errors that are discovered.

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (http://wweb.uta.edu/aao/fao/).

Disability Accommodations: UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA), The Americans with Disabilities Amendments Act (ADAAA),* and *Section 504 of the Rehabilitation Act.* All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of **a letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:
The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

Non-Discrimination Policy: *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.*

Title IX Policy: The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit* www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

> *I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*
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> *I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at https://www.uta.edu/conduct/.

Electronic Communication: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at http://www.uta.edu/oit/cs/email/mavmail.php.

Campus Carry: Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit http://www.uta.edu/news/info/campus-carry/

Student Feedback Survey: At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit http://www.uta.edu/sfs.

Final Review Week: for semester-long courses**,** a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Emergency Exit Procedures: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located [insert a description of the nearest exit/emergency exit]. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

Student Support Services: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at http://www.uta.edu/universitycollege/resources/index.php.

Course schedule on the following page.

As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. – Christopher Conly

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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

Date	Day	Topic	Notes/Assignments
08/26	Friday	Introduction; differences between C & Java	
08/29	Monday	Linux, compilation/linking	
08/31	Wednesday	Variable types and memory	
09/02	Friday	Variable types and memory	
09/05	Monday	**Labor day**	**No class**
09/07	Wednesday	Variable types and memory	
09/09	Friday	Pointers	Assignment 01 due
09/12	Monday	Pointers	
09/14	Wednesday	Pointers	
09/16	Friday	Pointers and arrays	Assignment 02 due
09/19	Monday	Pointers and arrays	
09/21	Wednesday	General I/O	
09/23	Friday	General I/O	Assignment 03 due
09/26	Monday	General I/O	
09/28	Wednesday	Structures	
09/30	Friday	Structures	Assignment 04 due
10/03	Monday	Dynamic Memory	
10/05	Wednesday	**Midterm 1**	
10/07	Friday	Dynamic Memory	
10/10	Monday	Linked Lists	
10/12	Wednesday	Linked Lists	
10/14	Friday	Linked Lists	Assignment 05 due
10/17	Monday	Memory: stack and heap	
10/19	Wednesday	Memory: stack and heap	
10/21	Friday	Recursion	Assignment 06 due
10/24	Monday	Recursion	
10/26	Wednesday	Dynamic Programming	
10/28	Friday	Binary Trees	Assignment 07 due
10/31	Monday	Binary Trees	
11/02	Wednesday	**Midterm 2**	
11/04	Friday	Binary Trees, Graphs	
11/07	Monday	Graphs	
11/09	Wednesday	Graphs	
11/11	Friday	Hash Tables	Assignment 08 due
11/14	Monday	Hash Tables	
11/16	Wednesday	Advanced use of pointers	
11/18	Friday	Advanced use of pointers	Assignment 09 due
11/21	Monday	Advanced use of pointers	
11/23	Wednesday	Miscellaneous	
11/25	Friday	**Thanksgiving Holiday**	**No class**
11/28	Monday	Miscellaneous	Assignment 10 due
11/30	Wednesday	Review	
12/02	Friday	**Midterm 3**	
12/05	Monday	Practice	
12/08	Wednesday	Practice	
12/12	Monday	**FINAL EXAM in NH 109**	2:00 PM - 4:30 PM