CSE 1320-005 – Intermediate Programming
Spring 2021

Instructor Information

Instructor
Alex Dillhoff

Office Number
ERB 651

CSE Department Telephone Number
817 272-3785

Email Address
alex.dillhoff@uta.edu

Website
https://vlm1.uta.edu/~dillhoff

Office Hours
Tuesday, Thursday 10:00 AM – 11:30 AM CST

Course Information

Section Information
005 Tuesday, Thursday 12:30 PM – 1:50 PM CST Online 2

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.

Student Learning Outcomes
- Knowledge of the fundamentals of the C programming language.
- Familiarity with the Linux Operating System – including compiling and running C programs.
- Basic data structures and their implementation.
- General programming and commenting styles to promote both readability and collaboration.

Required Textbooks and Other Course Materials

Class Sharepoint: https://mavsuta.sharepoint.com/sites/cse13xx

Technology Requirements
- Webcam required for exams and quizzes
- Microphone required for class and office hours interaction
- Microsoft Teams
- Access to Canvas
- Respondus LockDown Browser

Grading Information

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Homework Policy: Programming is learned by doing – not just by reading about it or listening to someone talk about it. How well would you play a sport or a musical instrument if you only read about how to play or listened to someone lecture about how to play? There will be coding assignments and homework assignments almost every week. You will not be able to pass this class with a C or better unless you do the coding assignments. The homework assignments are to reinforce the in class presentations and will serve as your study guides for the exams.

Since all assignments/code will be submitted via Canvas, you will have 24 hours after the due date/time to submit your work but it will incur a 50% penalty. PLEASE remember that 50 points out of 100 is better than ZERO.

Please note – Coding Assignments that do not compile or compile with ANY warnings on Omega will be assigned a grade of 0 automatically. No partial credit will be given for code that does not cleanly compile. Code must run in order to be tested/graded.

While I do encourage students to work together on understanding Coding Assignments, I expect every student to do their own work and turn in their own code. Coding Assignments are checked for similarity – any student's code that is determined to be too similar to another student's code submission will be assigned a 0 for the first offense and will be referred to the Office of Student Conduct for any subsequent incidents. Additionally, the highest grade achievable will be a B. Any subsequent offenses will result in a F in the course. This policy will be applied to all students involved – does not matter if you are copying someone else or allowing someone else to copy you.

Any assignment from this class that is found posted on the web in any format will be voided for all sections and a new coding assignment will be assigned to all students unless the student who attempted to cheat via the web is identified.

Besides homework, there will be 3 planned exams. The third exam serves the additional purpose of preparing students for the departmental final.

Grading Policy: Letter grades will be assigned as follows: 90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, 0-59 = F.

- Final Exam 30% (Departmental Final) – must earn at least 70% in order to pass class
- Homework 20%
- Exams 50%

No make-up exams will be given except for extenuating circumstances beyond the student's control (in the instructor's opinion). Poor planning or forgetfulness on your part won't be considered an emergency.

Quizzes and Exams must be taken through the Lockdown Browser on Canvas.

Departmental Final: The Final Exam grade is 30% of the total class score and both of the following criteria MUST be met to pass this class
- students are required to make 70% or above on the Departmental Final Exam
  AND
- students are required to make 70% or above for the overall class score

In the case that the departmental final is canceled, the homeworks will make up 50% of the final grade.

Student Conduct

Students are expected to be professional and civil in their language and conduct:
- During lectures
- During office hours
- In any oral, written, or electronic communication with the instructor and TAs
- In assignment submissions
For any student violating this policy, the instructor reserves the right to impose any grading penalties that the instructor considers appropriate, including a failing grade for the class, regardless of any other aspects of student performance. Examples of violations include language that is vulgar, insulting, disrespectful or threatening, making noise or talking with other students during lectures, disrupting lectures in any way, or making it difficult for other students to follow lectures in any way.

**Important Dates**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>Tuesday, January 19th</td>
<td>First day of class</td>
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<tr>
<td>Wednesday, February 3rd</td>
<td>Census date</td>
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<td>March 15th - 20th</td>
<td>Spring Vacation</td>
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<tr>
<td>April 2nd</td>
<td>Last day to drop classes</td>
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<tr>
<td>May 4th</td>
<td>Last day of classes</td>
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<tr>
<td>TBD</td>
<td>*Departmental Final Exam - 11:00 AM – 1:30 PM</td>
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*All sections of CSE 1320 will take their final exam at this time regardless of the time the class meets for lectures.*

**Course Schedule**

Note that this is subject to change, but here are the topics I intend to cover in their approximate order. 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.

- UNIX Basics
- Fundamentals - Reserved Words, Identifiers, the Character Set (ASCII)
- Basic data types - int, char, float types
- Debugging
- Functions in C
- Passing Parameters to Functions
- Input and Output with Variables – printf() and scanf()
- Operators - Arithmetic, relational and logical Operators
- Expressions and Statements
- Blocks and Compound Statements
- if and if else Statements
- The while loop and do-while loop
- The for loop
- The switch Statement
- return vs exit
- Base conversions
- Automatic vs forced type conversions
- makefiles and compiling multi module programs
- Arrays – 1D, 2D and multidimensional
- Strings and the String Library
- Structures, typedefs, enumerations and unions
- Scope
- Global versus Local Variables
- Command Line Parameters
- File Handling
- Pointers and Dynamic Memory Allocation - malloc(), realloc(), free()
- Linked Lists, stacks and queues
- Using Recursion
• Binary trees and binary search trees

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 (https://resources.uta.edu/provost/course-related-info/institutional-policies.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

Mandatory Face Covering Policy
All students and instructional staff are required to wear facial coverings while they are on campus, inside buildings and classrooms. Students that fail to comply with the facial covering requirement will be asked to leave the class session. If students need masks, they may obtain them at the Central Library, the E.H. Hereford University Center’s front desk or in their department. Students who refuse to wear a facial covering in class will be asked to leave the session by the instructor, and, if the student refuses to leave, they may be reported to UTA’s Office of Student Conduct.

Attendance
This is an online only class and all lectures will be recorded. Attendance is encouraged, but not mandatory.

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 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.

Student Success Programs
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 by appointment, drop-in tutoring, etutoring, supplemental instruction, mentoring (time management, study skills, etc.), success coaching, TRIO Student Support Services, and student success workshops. For additional information, please email resources@uta.edu, or view the Maverick Resources website.

Counseling and Psychological Services
Physical and mental wellness are an important part of learning. UTA offers counseling and psychiatry to all students enrolled in campus-based classes. For more information, go to https://www.uta.edu/caps/

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