

CSE 1320 – Intermediate Programming

Spring 2019

Instructor Donna French

Office Number ERB 338

Office Phone I don't have a phone in my office, but in case of an emergency you can call the CSE department at 817-272-3785.

Email Address donna.french@uta.edu (best way to contact me)

Faculty Profile <https://mentis.uta.edu/explore/profile/donna-french>

Office Hours Monday, Wednesday, Friday 10:30 pm – 12:30 pm (or anytime my door is open)
2:30 pm – 4:00 pm (or anytime my door is open)
Tuesday, Thursday 10:00 am – Noon (or anytime my door is open)

Section	008	Monday, Wednesday, Friday	9:00 AM – 9:50 AM	ERB 130
	003	Monday, Wednesday, Friday	1:00 PM – 1:50 PM	COBA 251
	002	Tuesday, Thursday	12:30 PM – 1:50 PM	ERB 131

Course Description: 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 or C or better in CSE 1312, 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 CSE 1105 (or concurrent enrollment).

Course Objectives:

- Introduction to the C programming language
- Exposure to basic data structures
- Learn to use the Linux operating system

Textbook: C By Discovery Foster & Foster 4th Edition ISBN 9781576761700

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 Blackboard, 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 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 offensive and will be referred to the Office of Student Conduct for any subsequent incidents. 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.

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

Exam 1	10%
Exam 2	10%
Final Exam	30% (Departmental Final) – must earn at least 70% in order to pass class
Homework/Crash Course	10%
Code	20%
In class quizzes	20%

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.

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

Attendance: At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. As the instructor of this section, I will not specifically take attendance but a significant portion of your final grade will be earned in class; therefore, if you do not attend regularly, your grade will suffer. If you have notified me **BEFORE** missing class that you will be missing class, then you will be allowed an opportunity to make up any quizzes executed during that class period. If you do not notify me **BEFORE** missing class, any quiz given during the missed class will be an automatic 0.

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.

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. Michelle Willbanks, Title IX Coordinator at (817) 272-4585 or titleix@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.

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/>. Faculty are encouraged to discuss plagiarism and share the following library tutorials <http://libguides.uta.edu/copyright/plagiarism> and <http://library.uta.edu/plagiarism/>

Electronic Communication Policy: 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 classes categorized as lecture, seminar, or laboratory shall be directed to complete a 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 enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. 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; there are exits located east and west of this room. 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 handicapped individuals.



Active Shooter: The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor. Please review the information provided by UTA Police regarding the options and strategies we can all use to stay safe during difficult situations. <https://police.uta.edu/activeshooter>

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>.

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

Important Dates

Monday, January 14 th	First day of class
Monday, January 21 st	No class – MLK Day Holiday
After completion of Arrays	Exam 1
March 11 th – March 15 th	No class – Spring Break
After completion of Formatted I/O	Exam 2
Friday, May 3 rd	Last day of classes at UTA
Monday, May 6 th	Departmental Final Exam (5:30 PM to 8:00 PM)*

*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

Subprograms or Functions in C

Input and Output with Variables

Scope

Arithmetic Operators

Expressions and Statements

Blocks and Compound Statements

The if and if else Statements

The while loop

The for loop

Making C Readable - Programming Style

Debugging

Maintenance

Arrays

Exam 1

Pointers

Passing Parameters to Functions

Strings

The do-while Statement

The switch Statement

Getting Out Gracefully

Structuring the Data

Intraprogram Communication

Global versus Local Variables

Multidimensional Arrays and Double Indirection

Command Line Parameters

An Introduction to Files in C

Formatted Input and Output

Exam 2

Dynamic Allocation and De-allocation of Memory

malloc(), realloc(), free()

Defining Macros

Pointers and Dynamic Memory Allocation

Stack, queue and heap

Static vs Dynamic

Binary tree

Using Recursion

Linked List

Hash table

Departmental Final Exam