# **CSE 1310: Introduction to Computers and Programming**

Fall 2024

Last updated 8/19/2024

## **Instructor Information**

#### Instructor:

Alexandra Stefan (she/her)

#### Office Number:

ERB 625

#### **Office Telephone Number:**

817-272-3785 (CSE Department phone number)

#### **Email Address:**

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## **Faculty Profile:**

https://www.uta.edu/academics/faculty/profile?username=astefan

#### **Instructor Office Hours:**

MoWe 2:45pm-3:30pm, TuTh 12:40-1:40 or by appointment. Office hours will be in person in room ERB 625. During in-person office hours, students that are physically there will have priority. If I am free, I will check Teams and conduct online office hours (via Teams video call or chat).

For the online office hours, I will not have an ongoing open meeting for students to join due to privacy issues. Instead, I will have individual calls with students. Please send a chat message to indicate that you want to join office hours and we can continue as a chat or with a call. For calls during office hours I typically use video and I encourage you to use it as well, but you are free to use only voice or chat. Same rules apply for TA office hours.

#### **Course Information**

#### Section Information:

CSE 1310-004

#### Time and Place of Class Meetings:

MoWe 1:00pm - 2:20pm, **SWSH 221** All lectures will be in person.

## **Description of Course Content:**

This course introduces students to computers, to the algorithmic process, and to programming using basic control and data structures. The programming language is C.

#### **Student Learning Outcomes (SLO):**

- DETAILED student learning outcomes are specified on the CSE 1310 departmental page. This page may have the information from the previous semester, but will be updated in the first days of classes: https://mavsuta.sharepoint.com/sites/cse13xx/SitePages/CSE-1310.aspx
- 2. High level student outcomes:
  - a. Be able to **write programs that implement basic functionalities** such as math functions (e.g. the factorial), processing of strings and lists, games (e.g. Tic-Tac-Toe, The Hangman) or simplistic real-world applications (e.g. a phonebook).
  - b. **Debug** programs written by you or by others.
  - c. Test programs
  - d. When reading code, be able to explain what each line of code does and how it affects the program state.
  - e. Write programs to read and write text files

- f. Write programs where the functionality is split over three or more functions.
- g. Develop problem-solving skills:
  - i. break a problem into smaller components,
  - ii. identify which of those you know how to do and which you do not,
  - iii. develop solutions for each component that can then be combined to work together as a complete program
  - iv. identify special cases for which your program may not work as expected (e.g. invalid data is given to it)

#### **Textbook and Other Course Materials:**

There is no required textbook for this class. All the information needed for assignments and tests will be provided in slides and/or presented during lectures.

Optional textbook: "C by Discovery" by Foster and Foster, 4-th edition, ISBN-13: 978-1576761700, ISBN-10: 1576761703. I am using the 4<sup>th</sup> edition, but the 3<sup>rd</sup> one is also ok. This book is also the official textbook for CSE 1320, but I do not know what version each CSE 1320 instructor allows or if they require the book or not.

#### **Technology Requirements**

The following tools will be used:

- Canvas announcements, online guizzes, homework submission, discussion board, course materials
- Teams for online lectures and office hours (for both instructor and TA). It is recommended to use the Microsoft Teams App (as opposed to the Microsoft Teams webpage).
- Respondus Lockdown software that will block your browser when taking a benchmark quiz.
- A webcam (integrated in the laptop or external) will be needed during online exams (for video recording and monitoring of the student taking the exam) and possibly for some assignments where students may need to record a video as part of the assignment.
- Use of an IDE (Integrated Development Environment) to facilitate developing and debugging code. Information on this will be provided in Canvas and in the first lecture. I recommend Code::Blocks, but any IDE where you can develop and debug C code is fine.
- Headphones with microphone are strongly encouraged so that you can easily communicate with us.
- For tutorials on these tools see the resources linked under the "Help" section in Canvas.

## Other Requirements:

The exams will require writing code WITHOUT the use of an IDE or a compiler (i.e. without being able to run the code or the program you are writing). Practice writing your programs (for homework or practice) on paper first and then on the computer.

#### **Course Schedule**

See the end of this document.

# **Grading Information and Major Assignments**

# **Grading and major Assignments and examinations:**

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (starting with the instructor and TAs) if their performance drops below satisfactory levels; see "Student Support Services," below.

See the Final Grade Reports Schedule for dates and deadlines related to grades.

The grading scheme below and the class schedule may be adjusted if deemed beneficial for the class. In that case the changes will be clearly stated and posted as announcements in Canvas.

Assignment	Weig ht	Modality
Two Midterms and one Final exam The final exam grade will replace the lower of midterm1 or midterm2 if that improves the student's grade.	35%	In classroom, in person

Departmental Benchmark Quizzes: 5 quizzes, online - Available for 30 hours starting at 6pm Will require a Video Camera and the Lockdown Browser Software 70% of the class, must score 70 or higher. If not, we will review the material and the exam will reopen. If a retake opens, and you scored less than 70 in the first attempt, and you do not take the retake, your grade will be 0. If you retake it, and score lower, the higher score will be kept. Note that if the class passes the first time (70% of the students score 70 or more) the test will NOT reopen and you will not have the possibility to retake it Managed and administered by the cse13xx coordinator, Prof. Donna French via a separate Canvas course that you will be automatically added to, AFTER Census Date. There will be no cost for this course. It is not a course per se, but a mean to administer these exams across different sections Study guides will be provided for each Benchmark in Canvas A practice test will be provided in the "CSE1310 Benchmarks" course. Take it 2 or more days BEFORE you need to take your first benchmark quiz to ensure your system is working well.	20%	In Canvas, by topic (not cumulative)  Due dates: Specific dates will be picked during the semester. They will be soon after we finish that material.
Lecture Quizzes – Review and Lecture-based quizzes (in Canvas) or activities. Tentative due date: the night before each lecture (at 11:59pm Sunday and Tuesday). They will not require a Camera and the Lockdown Browser. Their purpose is to motivate studying the material covered each lecture and to review past material. Students can use any class material and discuss the answers for these quizzes with classmates.  1 lowest score Lecture Quiz (LQuiz) will be dropped	10%	in Canvas, cumulative, but with focus on the new material
Coding Homework – one per week To help with the adjusting period at the beginning of the semester, the lowest of the first 4 (1 to 4) Coding Homework assignments can be dropped if it improves your overall homework score. If you want that, send the instructor an email requesting it. This is to help getting used with the course style. Do NOT use this rule to just skip one of the first 4 coding homework assignments. Submit them all!!! Coding assignments become more challenging as the semester progresses. Do the best you can now! See the rules for late submission penalty and early submission bonus.	35%	Submitted in Canvas, cumulative
Total class score	100%	

Learn how to compute your class score yourself!

Plan 2 hours of work each day for this class adding to a total of 12 hours per week, outside of lecture time. I know this is a tight schedule, but it is designed to keep you up to pace with the material and that should reduce time spent in debugging, which can save hours. Let me know if you have any concerns or suggestions.

# **Coding Homework**

Code that does not compile or compiles 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 that does not run will not be graded.

# Late and Early Submission rules for Coding Homework

Definitions:

- Available date date until the assignment is available (i.e it can be opened in Canvas and a solution can be submitted)
- Due date date an assignment is due. Students may not be able to submit after this date. If the Available date is after the due date, students can submit answer after the due date, but before the available date; such submissions will be late submissions and the late penalty will apply.

#### **Bonus points for Coding Homework only**

Bonus points for coding homework can be earned from:

- early submission of a homework (5 points per assignment)
  - Students that submit a Coding Homework 24 hour or more before the DUE date receive 5 bonus points for each such homework. There is no partial bonus if you submit less than 24 hours early (e.g. no bonus if you submit 20 hours before the deadline)
  - o The max possible score in a coding homework will be 105 (100 points + 5 bonus points).
- unused extension days (2 pts per unused day).

If earned, these bonus points will be added to the sum of all homework scores before diving to compute the homework average score. E.g. HwAvg = (105hw1 + 105hw2 + 50hw3 + 10unused\_days\_points)/3hws = 270/3 = 90. **Bonus points from Coding Homework cannot affect other components of the grade** (e.g. the Midterms and Final average score). If, with the bonus points, final homework average score, HwAvg, is above 100, it will be capped at 100.

Late submissions are allowed only for Coding Homework. Any other type of assignment has no late submission.

Coding Homework can be submitted up to 2 days (2 x 24 = 48 hours) late, after the DUE date, with 2% penalty per missed deadline every hour.

#### Here is an example:

- a) An assignment that can be submitted late will have both a DUE date and an AVAILABLE date in Canvas. The DUE date is the actual due date. The AVAILABLE date is 48 hours after the DUE date to allow late submission. You cannot submit anything after the AVAILABLE date. Coding homework submitted after DUE date, but before AVAILABLE date will be late.
- b) Late penalty: 2% of the total points for every missed deadline in one hour increments. Note that this is a PERCENTAGE, not a fixed number of points. If one homework is worth 200 points, for each missed deadline you lose 4 points, not 2 points.
- c) You have 6 "extension days"
- d) One "extension day" removes the late penalty for 24 hours.
- e) An "extension day" cannot be split. You must use an entire "extension day" or not use it at all (you cannot use 10 hours towards one assignment and another 14 towards another).
- f) No submission is allowed after 48 hours (the AVAILABLE date). You CANNOT use more than 2 extensions, or a combination of extension days with late penalty to get more than 48 hours extension from the due date. Canvas will close.
- g) The TA will apply your request for extension day(s) when they grade your homework (not before). They will manually update the number of late hours for that assignment in Canvas.
- h) Example:

Coding Homework X shows DUE Monday 11:59pm and AVAILABLE until Wednesday 11:59pm.

- i. Solution submitted before Sunday 11:59 pm is early. It receives 5 bonus points.
- ii. Solution submitted on Monday is on time (no bonus and no penalty).
- iii. No submission possible after Wednesday 11:59pm.
- iv. Solution submitted on Tuesday or Wednesday is late.
  - 1. Submitted Tuesday at 12:05 am missed one deadline (the 11:59pm Monday) => 2% penalty
  - 2. Submitted Tuesday at 4:00am missed 5 deadlines (11:59pm, 12:59am, 1:59am, 2:59am, 3:59am) => 10% late penalty
  - 3. Submitted Tuesday at 11:50pm missed 24 deadlines => 48% penalty
  - 4. Submitted Wednesday at 12:05am missed 25 deadlines => 50% late penalty
  - 5. If you choose to use one "extension day" for this assignment, up to 24 late hours will be removed. E.g. if it was late 30 hours, now it will be late 6 hours. If it was late 18 hours, now it will be late 0 hours (on time).

#### 6 Extension days

To keep track of the extension days, there will be an assignment in Canvas named "Extension days". It will start by having "grade" value 6 (to represent 6 days available) and every time one or more days are used that number will be subtracted. For example, a student that used 2 extension days will have grade 4 in "Extension days" to indicate that they have 4 days left. Students are responsible for keeping track of these days. For example, if you requested to use 2 extension days for an assignment, this will not be reflected in "Extension days" for a while (it will not show until the TA graded that homework and updated the "Extension days" grade). But you should know that those days are used and count on only 4 remaining.

To use an extension day, submit a comment in Canvas saying "use 1st extension for coding hw X" under:

- "Coding Homework X" this will tell the TA to remove the late penalty. It is mandatory.
- "Extension days" this will help us have a centralized place with a record of what was used. This is optional. The TA will put a comment here to indicate what days were used for what homework.

I am providing the extension days to accommodate and help students handle unforeseen situations and have some flexibility in their schedule. Do not let them lure you to postpone working on your homework. I strongly encourage you to start as soon as the homework is posted and to aim to submit early. That will give you 5 bonus points for each early submission that go to the sum of all homework scores before dividing to get the average homework score. Keep the extension days and use them when you are in dire need for them (you become sick or have some personal emergency). It is safer to keep them and not use them at all, than to use them up in the beginning and then have nothing towards the end of the semester.

#### No Make-up Exams/Quizzes/Homework:

Make-up exams or any other additional work towards "improving ones grade" will not be offered. Some bonus points are available from early submission of coding homework and unused extension days. Do your best to earn those.

## **Expectations for Out-of-Class Study:**

**Practice, practice!** Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend an additional **12 hours** per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

Before every new lecture, you should have reviewed and understood the previous lecture. After each lecture you should type and run the programs covered in class (if possible, all from memory, without using your notes).

Practice the right way! If working on a single aspect of a problem takes you a very long time, you may be doing it wrong! It should not be trial and error, but a guided process. Talk to the instructor, TA and other classmates about it.

#### **Grade Grievances:**

Any issues and regrading requests for an assignment (e.g. coding homework, quiz) must be resolved within 5 business days of the day the grades are posted for that assignment. After 5 business days the grade will not be modified and such requests are dismissed.

For a homework grade issue contact first the TA that graded it. He/she can explain why you lost points. If they made a mistake, they will fix it. If after talking to the TA the issue is not resolved, contact the instructor. For a quiz or exam grade contact the instructor first.

An official appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current University Catalog. See Undergraduate Grading Policies and Student Complaints.

# **Student Conduct and Academic Integrity**

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, TAs, and classmates
- 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 reducing the final class grade to the next lower grade and to report the case to the Office of Community Standards. Examples of violations include language that is vulgar, insulting, disrespectful or threatening, disrupting lectures in any way, or making it difficult for other students to follow lectures in any way (e.g. by making noise or talking loud and extensive with other students at the same time the instructor or another student are speaking).

#### Academic Integrity:

The penalty for cheating or collusion in a homework or exam is a grade of 0 for the entire exam or homework and the case is reported to UTA's Office of Community Standards (https://www.uta.edu/student-affairs/community-standards).

A student reported for academic integrity cannot receive a grade A, even if they are the one that wrote the solution and only shared it with a classmate. In this case their grade will be B, even if the class score after the cheating penalty is in the range for A. The reason for this is that a grade A represents not only academic abilities but also academic integrity.

In cases of collusion, ALL students involved will be reported to the Office of Student Conduct. For example if one student wrote his solution on his own, but shared it with a friend, BOTH students are reported and both are penalized with a grade of 0 for that assignment (even if one admits that he/she copied after the other student).

The homework for this class is individual (no group projects) unless otherwise stated in the assignment.

You are NOT allowed to work as a team and develop together the homework solution (or a significant/critical part of it), or let another classmate see or have access to your code. Do NOT show your code or part of your code for a homework or exam to any other student.

You are allowed and encouraged to discuss with classmates the homework requirements, but NOT specific code for the homework solution. You can practice and review programming language concepts covered in class, programs covered in class, and other practice problems that are NOT part of the homework.

You must solve the homework and exam problems yourself, using only the materials covered in this class. You should not search and look at any solution (from the web, or from a friend or classmate) for homework or exam problems or part of those problems. If you need help, you should contact the instructor or a TA. You are not allowed to look at an existing solution, not even to "get inspiration". That is considered cheating for this class and is reported.

Standard policy: You should reference all the resources you used in preparing for a homework solution especially if they may have influenced your solution. REFRENCING MATERIAL DOES NOT JUSTIFY COPYING a solution.

In this course, the focus is on the development of independent critical thinking and the mastery of subject-specific content. To ensure that all submitted work accurately reflects personal understanding and original thought, the use of Generative AI (GenAI) tools in completing assignments or assessments is strictly prohibited. This policy supports our commitment to academic integrity and the direct measurement of each student's learning against the course's Student Learning Outcomes (SLOs). Any work found to be generated by AI will be subject to academic review.

If code or homework are stored on a cloud service, it must be private and password protected. Posting homework requirements or homework solutions on sites such as CodeHero where other users can search and access it, is a violation of the Academic Integrity policy for this class and will be reported and the grade penalty applied.

If an exam is administered in person, I may take pictures of students during the exam to document the seating arrangement. Let me know if that is a concern for you. During the exam you should only look at your exam, the board or the ceiling. If you tend to look to the side when you think, make sure you sit at isle seat, where you can look towards the side wall.

Please do not hesitate to talk to me regarding any concerns you may have.

## **Institution Information**

Please review the UTA Syllabus Institutional Policies page (<a href="https://resources.uta.edu/provost/course-related-info/institutional-policies.php">https://resources.uta.edu/provost/course-related-info/institutional-policies.php</a>) which covers the following policies and more. For questions, reach out to the specific office.

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

## **Additional Information**

#### **Face Covering Policy**

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:

Attendance is an important factor in succeeding in this class. Students are expected to attend lectures and keep up with the class. If you fall behind it is hard to catch up as the material keeps building on top of previous concepts and becomes more complex as well. Attendance itself (being present) will not be factored into the class grade, but class work may be (policy to be updated).

The U.S. Department of Education requires that UT Arlington have a mechanism in place to verify Federal Student Aid recipients' attendance in courses. UT Arlington instructors are expected to report the last date of attendance when submitting students' final course grades; specifically, when a student earns a course grade of F, instructors must report the last date a student attended their class. For on-campus classes, last date of attendance can be based on attendance rosters or on academic engagements—a test, participation in a class project or presentation, or Canvas-based activity. Online or distance education courses require regular and substantive online interaction and participation. Students must participate in online course activities in Canvas to demonstrate attendance; logging into an online class is not sufficient by itself to demonstrate attendance. The last date of attendance is reported to the U.S. Department of Education for federal financial aid recipients.

## **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.

Students are encouraged to subscribe to the MavAlert system that will send information in case of an emergency to their cell phones or email accounts. Anyone can subscribe at <a href="Emergency Communication System">Emergency Communication System</a> (https://www.uta.edu/uta/emergency.php).

# **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, supplemental instruction, academic coaching (time management, study skills, etc.), TRIO Student Support Services, and student success workshops. For additional information, please email resources@uta.edu, or view the Maverick Resources website.

The <u>IDEAS Center</u> (https://www.uta.edu/ideas/) (2<sup>nd</sup> Floor of Central Library) offers FREE <u>tutoring</u> and <u>mentoring</u> to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. Students can drop in or check the schedule of available peer tutors at www.uta.edu/IDEAS, or call (817) 272-6593.

Supplemental Instruction (SI) leader – find the SI leaders. You can see any of them.

#### The English Writing Center (411LIBR):

The Writing Center offers **FREE** tutoring in 15-, 30-, 45-, and 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Register and make appointments online at the <u>Writing Center</u> (https://uta.mywconline.com). Classroom visits, workshops, and specialized services for graduate students and faculty are also available. Please see <u>Writing Center: OWL</u> for detailed information on all our programs and services.

The Library's 2<sup>nd</sup> floor <u>Academic Plaza</u> (http://library.uta.edu/academic-plaza) offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the <u>library's hours</u> of operation.

#### Librarian to Contact:

Each academic unit has access to <u>Librarians by Academic Subject</u> that can assist students with research projects, tutorials on plagiarism and citation references as well as support with databases and course reserves.

#### **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

# Research or General Library Help

Ask for Help

- <u>Academic Plaza Consultation Services</u> (library.uta.edu/academic-plaza)
- Ask Us (ask.uta.edu/)
- Research Coaches (http://libguides.uta.edu/researchcoach)

#### Resources

- <u>Library Tutorials</u> (library.uta.edu/how-to)
- Subject and Course Research Guides (libguides.uta.edu)
- <u>Librarians by Subject</u> (library.uta.edu/subject-librarians)
- A to Z List of Library Databases (libguides.uta.edu/az.php)
- Course Reserves (https://uta.summon.serialssolutions.com/#!/course\_reserves)
- Study Room Reservations (openroom.uta.edu/)

			Fall 2024 Tentative Schedule					
DoW	Day	Month	Topic					
			Syllabus, Introduction, IDE					
			IDE, first program (output, functions, comments, error messages, user input, int)					
			Variables, types, operations on numbers					
			Number Conversion (B1)					
			Unix commands, strings (B1)					
			Strings, formatted output (B1 exam, online)					
			Conditionals (switch,if, if-else, if-else-if) (B2)					
			Boolean expressions (B2)					
			Loops (B2)					
			Midterm 1 (tentative: Lecture 13, Wed, Oct 2)					
			Loops (B2)					
			Random number generation (B2 exam, online)					
			Strings (part 2)					
			Math functions					
			Functions (B3)					
			1D arrays (B3)					
			1D arrays data processing					
			Midterm 2 (tentative: Lecture 23, Wed, Nov 6)					
			2D arrays (B4)					
			File input/output					
М	2	Dec	Last day of classes (B5)					
W	4	Dec	No class - Student Study day					
W	11	Dec	FINAL Exam, 11 – 1 pm, Dec 11					
			This schedule is tentative. As the instructor for this course, I reserve the right to adjust the schedule in any way that serves the educational needs of the students enrolled in this course.— Alexandra Stefan					