

The University of Texas at El Paso

Department of Computer Science

CS 1301 – Intro to Computer Science

Fall 2020 Syllabus

1. General Information

Instructor:

Daniel Mejia

Email: dmmejia2@utep.edu

Dates: August 24, 2020 – December 11, 2020

Meeting location: Blackboard Collaborative Ultra

Office: Microsoft Teams

Meeting Times: TR 9:00am – 10:20am

Office Hours: MW 10:30 – 11:30am, or by appointment

Teaching Assistant (TA):

Alireza Pashamohammad Nouri

apashamoham@miners.utep.edu

Office Hours: MW 3-5pm

Blackboard Collaborative Ultra

Instructional Assistants (IA):

Paola Terrazas

pterrazas3@miners.utep.edu

Office Hours: TR 12-2pm

MS Teams

Cynthia Sustaita

cvsustaita@miners.utep.edu

Office Hours: MW 9-11

MS Teams

Please communicate with the instructor, TA, or IA anytime you have questions, concerns, or wish to discuss anything. Reach out as often and frequently as necessary so that we may help you succeed.

NOTE: When emailing the instructor, TA or IA, please use [CS 1301 FA20] in the subject.

You should be enrolled in **one lab section**. **Your lab and class should have the same instructor**. Do not drop in on a lab or lecture section other than yours, without prior approval from your instructor.

Prerequisites:

MATH 1508 or MATH 1411 with a grade of C or better

Textbook (Required):

1. Sign in or create an account at learn.zybooks.com
 2. Enter zyBook code: UTEPCS1301MejiaFall2020
 3. Subscribe
- A subscription is \$58. Subscriptions will last until Dec 17, 2020.

2. Objectives & Outcomes

Course Objectives: Students will learn to be active learners, understand the motivations for computing, basic concepts of algorithms, basic computer organization, and impacts of computing. They will develop problem-solving skills, implement solutions to computing problems in a high-level programming language, and build team skills, critical-thinking skills, and professionalism.

Knowledge and Abilities Required Before Entering the Course: Students entering the course are not required to have a background in Computer Science or programming. They should be familiar with topics from Pre-calculus, including algebraic functions, proofs, and base representations of numbers.

Course materials: All the course materials will be available through **Blackboard**. Please check Blackboard regularly to stay updated with the class.

Learning Outcomes

Level 1: Knowledge and Comprehension. Level 1 outcomes are those in which the student has been exposed to the terms and concepts at a basic level and can supply basic definitions. On successful completion of this course, students will be able to describe, at a high level:

1. The history of computing
2. The relation between computing and society, including social, ethical, and legal issues
3. Computing as a profession, from required knowledge and skills to major career options
4. Computer representation of simple data types and operations, including operations with binary numbers
5. Differences among programming languages
6. Pseudocode of the use of Multi-D arrays
7. Pseudocode of the use of Linked lists

Level 2: Application and Analysis. Level 2 outcomes are those in which the student can apply the material in familiar situations, e.g., can work a problem of familiar structure with minor changes in the details. Upon successful completion of this course, students will be able:

1. To analyze problems and express solution algorithms in pseudocode, including the correct use of:
 - a. Arithmetic and logical expressions
 - b. Simple I/O operations
 - c. User-defined subprograms, including recursive methods
 - d. User-defined types
2. To use testing and debugging strategies, including black-box and white-box testing, test drivers, stubs and test suites, to identify software faults
3. Use teamwork roles and methods in the classroom

Level 3: Synthesis and Evaluation. Level 3 outcomes are those in which the student can apply the material in new situations. This is the highest level of mastery. On successful completion of this course, students will be able to use the syntax and semantics of a higher-level language to express solutions to programming problems, including the pseudocode correct use of:

1. Basic variable types such as integer, real number, character, string, 1-D array
2. Assignment, arithmetic, and logical operations

3. Basic control structures: if-then, for-loop, while-loop

3. Policies & Other Information

Grading:

- Homework – 10%
- Quizzes – 20%
- Exam 1 – 13%
- Exam 2 – 13%
- Exam 3 – 13%
- Final Exam – 26%
- Class Participation – 3%
- Student Engagement in CS – 2%

The nominal percentage-score-to-letter-grade conversion is as follows:

- 90% or higher is an A
- 80-89% is a B
- 70-79% is a C
- 60-69% is a D
- below 60% is an F

Note: You **must earn a C or better** in each of these two courses, CS1301 and CS1101, to continue to the next course in this sequence, which is CS2401.

The instructor reserves the right to adjust these criteria downward, e.g., so that 88% or higher represents an A, based on overall class performance. The criteria will not be adjusted upward, however.

Attendance:

Attendance at and participation in all lecture sessions are critical factors of your success in this course. Students should be **on time** for all scheduled sessions and **attend the entire session**. Attendance will be taken at every session and will count towards your class participation grade. It is required that you attend each session. Sessions will be recorded; however, the recordings should not be used in lieu of attending the live sessions. Recorded sessions are intended to provide a way for students to review lectures and view them if they have issues joining live sessions (i.e. internet connection, personal emergencies, etc.). The live sessions will have in-class assignments, quizzes, exams, and group discussions. Failure to attend the live sessions will result in poor performance in the course. Please come prepared to have your camera on for the entirety of all sessions.

Class Participation:

Students should notify the instructor prior to missing a session if at all possible, and certainly right after if earlier was not possible. The instructor will allow two unexcused absences per semester before having the option to deduct points from the final grade (5 points per subsequent unexcused absence). It is the student's responsibility to obtain the content covered during missed class(es). Participation points also include completing post-lecture and post-labs online quizzes (when applicable) that are administered as

surveys to monitor students' overall progress and potential struggles. Any assignments due on the date of the absence will be considered late if not turned in as specified by the assignment guidelines unless an exception is granted by the instructor. *Points lost due to an unexcused absence may not be made up. Any points lost due to an excused absence will need to be made up by arrangement with the instructor.*

Quizzes:

The purpose of each quiz is to ensure that you are staying current with the class content weekly reading and to verify that you have acquired the skills developed in class. Quizzes usually will usually be paper-based, or on-line quizzes on Blackboard, or other platform(s) as mentioned in the class. There will be **no make-up** on missed quizzes.

Homework:

Reading and homework assignments will be announced in class and/or posted on Blackboard. If you miss a lecture session, it is your responsibility to find out what you missed. You should expect to spend **at least four hours per week outside of lecture on reading and homework**. Most of your homework will be work assigned on your online zybook: completing the assigned activities on time will be crucial to your success in the class (since these activities prepare you for classwork) and to getting a good grade (since late completion will be penalized). Some assignments will be submitted through Blackboard.

Exams:

There will be **3 midterm exams** and **one final exam**. All four exams together will weigh 65% of your overall final grade for CS 1301. Because the exams contribute so heavily to your total grade, it is vital that you do well on them. If you have test-taking difficulties in general, or if you have difficulties with our tests in particular, please come let me know as soon as possible and/or request appropriate accommodation from UTEP's Center for Accommodation and Students' Services.

The purpose of the **midterm exams** is to allow you to demonstrate mastery of course concepts covered thus far during the semester. Mid-term exams will take place during the regular lecture session and are tentatively scheduled to be held around week 5, week 10, and week 14. Make-up exams will be given **only in extremely unusual circumstances. If you must miss an exam, please meet with the instructor, BEFORE the exam.**

The **final exam** will be comprehensive. You must score 65% or better on the final exam to pass this course. You must take the final exam during the time shown in the schedule for the lecture section that you normally attend. **Do not "drop in" to another section:** there will not be a copy of the exam for you. This is University policy. If you have a scheduling conflict (e.g., if you are taking a final at EPCC) or if you are scheduled for three final exams in one day, see your instructor in advance for accommodation.

Student Engagement in Computer Science:

During the course of the semester, you must engage as a computer scientist in activities as shown below, in a way that you cumulate at least 2 points (towards your final grade).

Possible activities (along with the number of points each yields) include (but are not limited to – check with Dr. Mejia if you'd like to do something that is not on the list):

- **1 point** for each of the following:
 - Write a summary of a seminar you attended (proof of attendance needs to be provided as well)
 - Attend two review sessions provided by your undergraduate TAs or peer leaders before exams
 - Participate in a Department's open house as a volunteer student
 - Design a video about a specific career in Computer Science

- Design a video “explaining to a first grader” a topic relating to this course (seek instructor approval for topic)
- Other CS engagement suggestions will be determined and announced
- **2 points** for each of the following:
 - Be an active participant in a CS student organization / club (provide proof from faculty advisor)
 - Be an active undergraduate researcher in one of the CS Research labs and present to the class your work
 - Other CS engagement suggestions will be determined and announced

Note: These points should be acquired by the end of week 12 of the semester. No submission will be accepted past this deadline.

Technology:

Course content is delivered via the Internet through the Blackboard learning management system (LMS), supplemented by Microsoft Teams. Ensure your UTEP MINERS account is working and that you have access to the Internet. You may use any of the primary Web browsers—Edge, Google Chrome, Firefox, Safari, etc. When having technical difficulties, try switching to another browser.

The use of laptops, cell phones, or tablets of any kind, will be necessary for this course. It is necessary for all students to have an Integrated Development Environment (IDE) for program development (e.g. Eclipse, IntelliJ, etc.) with the capability of running .java files. It may be necessary to have a cell phone with a PDF Scanning App (Adobe Scanner, Notes (iPhone), CamScanner, etc.) to scan homework assignments. You may use a tablet (iPad, Surface Pro, etc.) to handwrite certain homework assignments and submit as PDF documents.

You will need to have access to a computer/laptop, printer, scanner, a webcam, and a microphone. You will need to download or update the following software: Microsoft Office, Adobe, Flash player, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and able to access all parts of the course. If you encounter technical difficulties of any kind, contact the [Help Desk](#).

Drop Policy:

To drop this class, please contact the [Registrar’s Office](#) to initiate the drop process. If you cannot complete this course for whatever reason, please contact me. If you do not, you are at risk of receiving an “F” for the course.

Accommodations Policy:

UTEP is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the [UTEP Center for Accommodations and Support Services](#)

(CASS); please contact the office at (915) 747-5148, or by email to cass@utep.edu. Students are required to discuss their accommodations with the instructor for a proper plan to be made.

4. Standards of Conduct and Academic Dishonesty

Netiquette:

Always consider audience. Remember that members of the class and the instructor will be reading any postings. Respect and courtesy must be provided to classmates and to instructor at all times. No harassment or inappropriate postings will be tolerated. When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a F2F situation. Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).

Standards of Conduct:

You are expected to conduct yourself in a professional and courteous manner, as prescribed by the UTEP Standards of Conduct.

A fundamental principle for any educational institution, academic integrity is highly valued and seriously regarded at The University of Texas at El Paso. More specifically, students are expected to maintain absolute integrity and a high standard of individual honor in scholastic work undertaken at the University. At a minimum, you should complete any assignments, exams, and other scholastic endeavors with the utmost honesty, which requires you to:

- Acknowledge the contributions of other sources to your scholastic efforts;
- Complete your assignments independently unless expressly authorized to seek or obtain assistance in preparing them;
- Follow instructions for assignments and exams, and observe the standards of your academic discipline; and
- Avoid engaging in any form of academic dishonesty on behalf of yourself or another student.

Graded work, e.g., homework and tests, is to be completed independently and should be unmistakably your own work (or, in the case of group work, your team's work), although you may discuss your project with other students in a general way. You may not represent as your own work material that is transcribed or copied from another person, book, or any other source, e.g., a web page.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable to another person.

- **Cheating**
 - Copying from the test paper of another student
 - Communicating with another student during a test
 - Giving or seeking aid from another student during a test

- Possession and/or use of unauthorized materials during tests (i.e. Crib notes, class notes, books, etc.)
- Substituting for another person to take a test
- Falsifying research data, reports, academic work offered for credit
- **Plagiarism**
 - Using someone's work in your assignments without the proper citations
 - Submitting the same paper or assignment from a different course, without direct permission of instructors
- **Collusion**
 - Unauthorized collaboration with another person in preparing academic assignments

Collaboration:

Collaboration among students is strongly encouraged.

It is acceptable to:

- Talk with other students about approaches and ideas.
- Get ideas and extra information from the internet, books, etc.

However, it is not acceptable to:

- Share code with another student (if a piece of code is submitted by two or more students, both students are guilty of cheating, regardless of who wrote the original code).
- Use code acquired from an outside source (the internet, a friend, etc.)
- Look at another student's code
- Debug another student's code

Software to detect plagiarized programs are used; appropriate disciplinary actions will be taken as necessary.

A full description of the University Standards of Conduct and Academic Dishonesty can be found in the Handbook of Operating Procedures.

Professors are required to -- and will -- report academic dishonesty and any other violation of the Standards of Conduct to the Dean of Students and OSCCR.