

CS 1301

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Syllabus

MTWRF 9:30am-10:35am

Summer 2021

ONLINE

Instructor: Julio César Urenda CastañedaOffice: [MS Teams](#): [Office](#)

Hours: TBA

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Hours: 11:50 am - 12:40 pm

email: apashamoham@miners.utep.edu**Online Course Access Points**Announcements: [Piazza](#)Homework and Quizzes: [Gradescope](#)Synchronous Meetings and Exams: [Blackboard](#)

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.

Prerequisites: MATH 1508 or MATH 1411 with a grade of C or better.

Corequisites: CS 1101

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.

Topics covered this semester: The semester (8 weeks) will be structured in four phases:

- During the first phase, we will cover algorithms, abstraction, memory and variables, including arrays. We will also go over conditionals and repetitions as they appear in our daily lives.
- In the second phase, we will introduce how conditionals and repetitions as loops can be used in algorithm design and in java, blending this with methods.
- During phase 3, we will introduce recursion and will practice integrating the essential components presented in phases 1 and 2 with recursion.
- Finally, in our last phase, we will learn about user-defined-data types and introduce the use of linked lists.

Textbook: *Introduction to Java Programming, Comprehensive Version 10th Edition* by Y. Daniel Liang. We will skip some sections, as announced in class. The textbook is required at all class meetings.

Secondary Text: *Introduction to programming in Java : an interdisciplinary approach* by Robert Sedgewick and Kevin Wayne. Both of these books are available at our library.

Required Reading: Read each section that we cover in class, both before and after class. Skim the section before class, even if you do not understand it fully, to have some idea of what we will be doing in class. Read it more carefully after class to clarify and fill in details you missed in class.

Warning: Sometimes, we will not “cover” all the material from a section in class, but instead focus on a particular aspect of the section. In such cases, I will point out in class which other parts of the section I expect you to read on your own.

Grading: Grades are communicated to students in a timely manner. It is your responsibility to keep track of your grades by compiling the grades you receive. Your semester grade will be based on a combination of homework assignments, quizzes, class participation, 3 mid-term exams, and a final exam. The approximate percentages are as follows:

- 10% Homework

- 20% Quizzes
- 65% Exams (three partial exams and one final comprehensive exam)
- 5% Class participation (includes on-time lecture attendance, active participation in class, completion of any quizzes for attendance and survey purposes).

The final comprehensive exam will be on

Friday, July 30rd

The nominal percentage-score-to-letter-grade conversion for CS 1301 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: Regardless of your standing in the class at that time, you need to earn a 65% or better at the final exam to pass the course. Additionally, you must earn a C or better in each of these two courses, CS 1301 and CS 1101, to continue to the next course in this sequence, which is CS2401.

Class Participation: 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. However, we understand that there are attenuating circumstances during this times of pandemic, please contact me if we need to make accommodations in the delivery method.

It is the your responsibility to obtain the content covered during missed class(es). Participation points also include completing post-lecture and post-labs online quizzes (when requested) that are administered as surveys to monitor your overall progress and potential struggles.

Quizzes: The purpose of each quiz is to ensure that you are staying current with the weekly reading assignments and video lectures and to verify that you have acquired the skills developed in class. Quizzes are unannounced. There will be no make-up on missed quizzes.

Finally, there will be unannounced in-class assignments, to be turned in either by the end of the class or within a short period of time after the class (details will be given for each assignment). There will be no make-up for missed in-class assignments. Grades of such assignments will weigh equally with grades from online quizzes.

Homework: Reading and homework assignments will be announced in class. 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. 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).

Exams: There will be three partial exams and one final exam. All four exams together will weigh 65% of your overall final grade for CS1301. 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 partial exams is to allow you to demonstrate mastery of course concepts covered thus far during the semester. Partial exams will take place during the regular lecture session and are tentatively scheduled to be held every two weeks. Make-up exams will be given only in extremely unusual circumstances. If you must miss an exam, please contact with an 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, contact your instructor in advance for accommodation. The final exam schedule is available online. It is the students’ responsibility to keep informed.

COVID-19 Accommodations: Students are not permitted on campus when they have a positive COVID-19 test, exposure or symptoms. If you are not permitted on campus, you should contact me as soon as possible so we can arrange necessary and appropriate accommodations. (classes with on-campus meetings) Students who are considered high risk according to CDC guidelines and/or those who live with individuals who are considered high risk may contact Center for Accommodations and Support Services (CASS) to discuss temporary accommodations for on-campus courses and activities.

ONLINE ETIQUETTE As we know, sometimes communication online can be challenging. It’s possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep these netiquette (network etiquette) guidelines in mind. Failure to observe them may result in disciplinary action.

- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of other’s ideas.
- Respect and courtesy must be provided to classmates and to the 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 face-to-face 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.
- Be reminded that some materials are subject to copyright and violations are prosecuted, so be cautious on what you share!

Detailed 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. The relation between computing and society, including main social, ethical, and legal issues
5. Computer representation of simple data types and operations, including operations with binary numbers
6. Differences among programming languages
7. Pseudocode of the use of Multi-D arrays
8. 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 a 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 Outcomes: 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

Policies

Academic dishonesty: It is UTEP's policy, and mine, for all suspected cases or acts of alleged scholastic dishonesty to be referred to the Office of Student Conduct and Conflict Resolution for investigation and appropriate disposition. See Section II.1.2.2 of the Handbook of Operating Procedures.

Attendance: You are strongly encouraged to attend class every day. I expect you to arrive for class on time and to remain seated until the class is dismissed. Students who have six or more absences (excused or unexcused) or have demonstrated lack of effort will be dropped from the course with a grade of "F". You are responsible to find out any assignment that must be made up if you are absent. My goal is for class meetings and activities to complement, rather than to echo, the textbook, and thus for every class to be worth attending.

Drop date: The deadline for student-initiated drops with a W is **Friday, July 10th**. After this date, you can only drop with the Dean's approval, which is granted only under extenuating circumstances. I hope everyone will complete the course successfully, but if you are having doubts about your progress, I will be happy to discuss your standing in the course to help you decide whether or not to drop. You are only allowed three enrollments in this course, and students enrolled after Fall 2007 are only allowed six withdrawals in their entire academic career, so please exercise the drop option judiciously.

Courtesy: We all have to show courtesy to each other, and the class as a whole, during class time. Please arrive to class on time (or let me know when you have to be late, and why); do not engage in side conversations when one person (me, or another student) is talking to the whole class; turn off your cell phone (or, for emergencies, at least set it to not ring out loud), and do not engage in phone, email, or text conversations during class.

Disabilities: If you have, or suspect you have, a disability and need an accommodation, you should contact the Center for Accommodations and Support Services (CASS) at 747-5148, cass@utep.edu, or Union East room 106. You are responsible for presenting to me any CASS accommodation letters and instructions.

Exceptional circumstances: If you anticipate the possibility of missing large portions of class time, due to exceptional circumstances such as military service and/or training, or childbirth, please let me know as soon as possible.

Concept Map:

