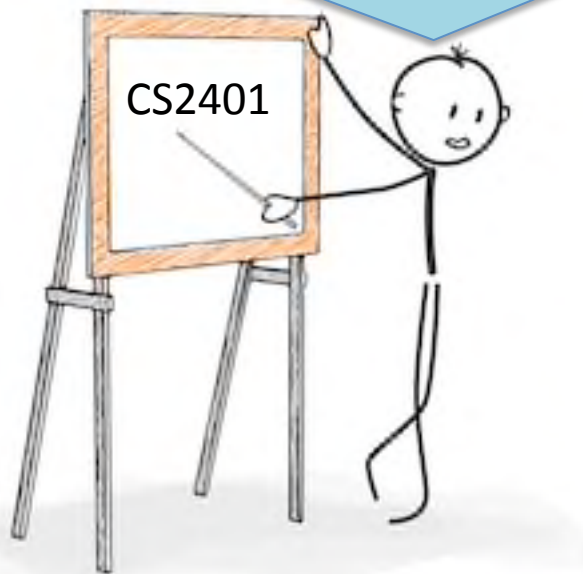


Welcome to CS2401 – Elementary Data Structures!

This is the second course for students majoring in Computer Science. Students will learn about fundamental computing algorithms including searching and sorting; recursion; elementary abstract data types including linked lists, stacks, queues and trees; and elementary algorithm analysis.



Prerequisite: CS 1301 and CS 1101 with a grade of C or better in both.

Knowledge and Abilities Required Before Entering the Course: comfortable programming in Java; able to code basic arithmetic expressions, define simple classes, use strings, code loops and conditional statements, write methods, create objects from classes, invoke methods on an object, perform basic text file input and output, and use arrays.

Topics covered this semester: Review and deeper study of arrays, objects, linked lists, and recursion. Introduction to algorithm analysis and rigorous study of searching and sorting algorithms. New data structures: binary trees (including binary search trees), stacks, and queues, along with their implementations.

Assessment & Grading

Homework: 10%
Quizzes & in-class work: 7%
Labs: 25%
Exams: 55% (3 exams + final)
Class & lab participation: 3%

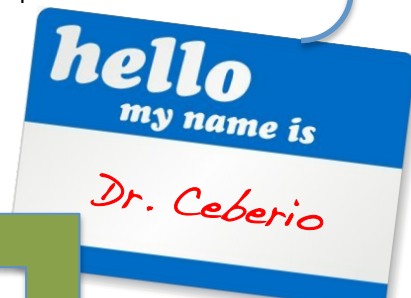
Essential to pass:
C or better overall
AND C or better in labs
AND C or better at final exam

Attitude

On time
On task
Professional
Responsible when missing

**MT 12:30pm
to 2pm**

**+ open-door
policy
+ by appointment**



Communication:

See: piazza.com/utep/fall2019/cs2401

Online textbook:
Zybook (cost \$77)

Book:
UTEPCS2401CeberioFall2019

Pick class section:
CS2401@9AM or CS2401@1030AM



Useful Resources:

<https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>
<https://www.utep.edu/student-affairs/cass/students-parent-faculty/CASS-Student-and-Faculty-Handbook-OCR-4-12-18.pdf>