

CS 4340-001 Computer Architecture

Fall 2019, Sul Ross State University

Instructor: Thea Glenn

Office Location: MAB-109B

Office Phone: 931-237-3324 (Available 10 am – 10 pm M-Su). Please note that if you do call before or after these hours I will block your ability to text or call me. You can email me 24/7. If you have any questions about my hours please let me know. These hours are outside of office hours and are a privilege not a requirement.

Email: tglenn2@sulross.edu

Office Hours:

M & W 8 – 9am & 1-2:30 pm

You may call from 10 am to 10 pm Mon-Sun if you need assistance with your homework or have issues that need to be discussed. Call 931-237-3324 Be brave be bold call if you need help.

Class: *Online*

Textbook:

Author Null, L. and Lobur, J

Title Computer Organization and Architecture 5th addition

ISBN 178-1-284-12303-6

Topics include combinational logic circuits and design sequential circuits, registers and counters, memory and programmable logic devices, register transfers and data paths, and sequencing and control. Offered spring odd years. Prerequisites: CS 2315

Program Learning Objective

1. Understand the fundamental concepts of computer science including algorithms and data structures.
2. Understand modern computer systems, databases and networking.
3. Display an understanding and ability to implement current programming methodologies.
4. Become proficient with systems design based on object-oriented programming.
5. Work as a team in workgroup environments.

Course Objectives

Students will learn how a modern computer system processes binary instructions as well as how information is stored and retrieved from persistent storage to main memory into the cache and finally the central processor's registers. Students will gain a working knowledge of binary and assembly programming as well as the primary hardware logic units to include, AND, OR XOR, XAN,

and Flip-flops and how they are integrated into modern chips. Students will learn how processors use super-scalar and read-ahead execution to speed up processing.

Need for Assistance

Qualified students with disabilities needing academic or other accommodations to ensure full participation in the programs, services and activities at Sul Ross State University should contact the Disabilities Services Coordinator, in Counseling and Prevention Services, Ferguson Hall 112, Box C-117, Alpine, Texas 79832. Please notify me before the third day of classes.

Course Policies

Quizzes and assignments must be submitted on time. I have set up rules in Blackboard so that assignments cannot be submitted after the due date.

Academic Dishonesty: Honesty in completing assignments is essential to the mission of the university and to the development of the personal integrity of the student. Cheating, plagiarism, or other kinds of academic dishonesty will not be tolerated and will result in appropriate sanctions that may include failing an assignment, failing the class, or being suspended or expelled. Suspected cases in this course may be reported to Student Life.

Posting of Grades

As soon as assignments, exams, and quizzes are graded, the grades will be posted in Blackboard.

Grading

Letter grades will be determined using a standard percentage point evaluation as outlined below. Please note that this is a tentative schedule and can change. Any changes that happen will be updated in Blackboard. Due Dates for all assignments are available in Blackboard.

Grades are derived as:

50% Homeworks/Projects/Pop Quiz

25% Midterm

25% Final

Your final grade will be determined by calculating points based on the following weights:

- A 90 - 100 %
- B 80 - 89 %
- C 70 – 79 %
- D 60 – 69 %
- F < 60%