

Computer Systems - 4450-320
Online, WebEx, Tu Th 9:15 - 10:30 AM

FALL 2020

THE UNIVERSITY OF AKRON
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

INSTRUCTOR: Prof. Shiva Sastry
Email: ssastry@uakron.edu

OFFICE: ASEC S-364

Office Hours: By appointment

Required Textbook: **Computer Organization and Design**, D.A. Patterson and J.L. Hennessy, Fifth Edition, Morgan Kaufman

1. You must notify me before the second class in the second week of the semester of any special needs for exams, class attendance, etc. through Office of Accessibility.
2. **Cheating of all forms is unacceptable. I will implement a ZERO TOLERANCE Policy.**
3. Your homework solutions will NOT be graded. The quizzes will be based on the homework assigned.
4. Teamwork is encouraged. I encourage active participation in class activities and discussions. All exams and quizzes must represent your own work.
5. Revisions and grade changes for exams and quizzes will be considered only during the first seven (7) days after the work is returned to you.
6. All students are encouraged to work on a project for this class. Only students who have a minimum score of 90% after the Mid Term Exam is graded will be approved to work on projects. Only two-person teams are allowed. Topics must be pre-approved. Students must meet me to clarify their roles before starting the project. Approved projects may substitute Final exam grade with project grade.
7. Attendance: In accordance with University Policy, you attendance in classes is required.

Grading Policy: Reflections 20%; Quiz: 20%; Mid Term: 30%; Final: 30%.

SPECIAL COVID-19 NOTES:

1. **I expect all class discussion and student interaction to be virtual via WebEx. If there is an exceptional circumstance that requires an in-person meeting, you must wear a face covering. No exceptions.**
2. **If you have a problem with your Internet service please let me know ASAP. WebEx offers a telephone number that you can call. If you call in to a meeting, you must identify yourself. Unrecognized students or participants will be removed from the meeting.**

ABET Outcomes:

1. Can organize and express technical ideas in a written report.
2. Can interpret information from processor datasheets to analyze system performance.
3. Can improve learning by working in peer teams.

Major Topics Discussed

Note: These topics correspond to the Chapters in your required textbook. More detailed list will be shared with the class in the next few weeks.

1. Computer Abstractions and Technology
2. Instructions: Language of the Computer
3. Arithmetic for Computers
4. The Processor
5. Exploiting Memory Hierarchy
6. Parallel Processors from Client to Cloud