CS: 270 Introduction to Computer Architecture II
Fall 2020

Instructor
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Class Meeting Time
Mondays, Wednesdays, and Fridays 9:00 AM - 9:50 AM

Course Delivery Method
Zoom Web Meeting will be used to deliver this course. Course materials including PowerPoint slides, additional materials, and homework assignments will be available in Blackboard. Class meetings will be held synchronously from 9:00 AM - 9:50 AM on MWF via Zoom. Zoom link will be available in Blackboard. Attendance of the Zoom session during class meeting times is highly encouraged. Recordings of the Zoom session will be available in Blackboard.

Office Hours
Mondays and Wednesdays: 10:00 AM - 11:00 AM, or by appointment. All office hours will be held via Zoom. Zoom link will be available in Blackboard.

Course Description
From the ODU Catalog

Prerequisites
A grade of C or better in CS 150 and CS 170.

Credits
3

Course Overview
In this synchronous online class, you will study the architectural and operational basics of modern computers. The course is designed to give students a good understanding of design and operation of an ALU (Arithmetic/Logic Unit), and implementation and control of single and multicycle processors. Further, the course covers processor pipelining, technology and operation of the memory hierarchy, virtual memory, and the importance of performance.

Required Textbook
Recommended Topics

- Overview of the Course & Review - Chapter 1 and Appendix B
- Processor - Chapter 4
- Controller - Appendix D
- Exploiting memory hierarchy - Chapter 5
- Parallel computing overview - Chapter 6

Grading Criteria

Your grade in this class will be based on the following:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework Assignments</td>
<td>45%</td>
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<tr>
<td>Mid-term Exam</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>30%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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Grading Scale

The + and - modifiers will be applied as appropriate.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>95-100</td>
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<tr>
<td>A-</td>
<td>90-94</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
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<tr>
<td>B</td>
<td>84-86</td>
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<tr>
<td>B-</td>
<td>80-83</td>
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<tr>
<td>C+</td>
<td>77-79</td>
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<tr>
<td>C</td>
<td>74-76</td>
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<tr>
<td>C-</td>
<td>70-73</td>
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<td>D+</td>
<td>67-69</td>
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<tr>
<td>D</td>
<td>64-66</td>
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<tr>
<td>D-</td>
<td>60-63</td>
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<td>F</td>
<td>0-59</td>
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Late Submissions

Any submission after its deadline is considered late. The following penalties for late submissions apply:

- 0-24 hours late: -10%
- 25-48 hours late: -20%
- after 48 hours: not accepted

This time limit includes weekends—they are counted just like weekdays.

The instructor reserves the right to specify that late submissions will not be accepted for specific homework assignments.

Student Responsibilities

Attendance

Attendance is highly recommended. Some materials presented in lectures are not covered by the textbook. Students with special needs (e.g. hearing, vision difficulties, etc.) should inform the instructor at the beginning of the semester.
Academic Integrity / Honor Code
By attending Old Dominion University, you have accepted the responsibility to abide by the honor code and honor pledge. This is an institutional policy approved by the Board of Visitors. If you are uncertain about how the honor code applies to any course activity, you should request clarification from the instructor. The honor pledge is as follows:

"I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member if the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned."

Any evidence of an honor code violation (cheating) will result in a 0 grade for the homework assignment/exam, and the incident will be considered for further review. Evidence of cheating may include a student being unable to satisfactorily answer questions asked by the instructor about a submitted solution. Cheating includes not only receiving unauthorized assistance, but also giving unauthorized assistance.

Students should avoid discussions of solutions to ongoing homework assignments or exams and should not, under any circumstances, share solutions for an ongoing homework assignment or exam.

Read the Academic Integrity page for more information on what is considered cheating or plagiarism in the Department of Computer Science.

All students are responsible for knowing the rules. If you are unclear about whether a certain activity is allowed or not, please contact the instructor.

Course Policies

Online Classroom Conduct
As all our interactions will be online, students are expected to follow good Netiquette rules. Netiquette is the accepted behavior for online participation. Following is a list of Netiquettes that students must follow in this class:

- You are expected to join the Zoom class meetings on time so that you do not cause a disruption in the middle of the class.
- Disrespectful language is unacceptable.
- Inappropriate backgrounds in Zoom class meetings will be NOT be tolerated.
- Avoid talking in the background.
- Keep your comments focused on the topic.
- Do not use all capital letters, as that is viewed as shouting.

Getting Help
Please use the Hallway forum (on Blackboard) to ask questions about the course material or ask clarifying questions about an assignment. Please do not
**discuss solutions to homework assignments in Hallway.** Feel free to answer questions that other students have posted in the Hallway forum.

If you need to contact the instructor about a private matter, the best way is through email, but do not expect or rely on an immediate response.

**Attendance**

Attendance is highly recommended. Some materials presented in lectures are not covered by the textbook. Students with special needs (e.g. hearing, vision difficulties, etc.) should inform the instructor at the beginning of the semester.

**Notification of Extenuating Circumstances**

If a serious situation has occurred that will prevent you from submitting your work (homework assignments, exams, etc.) on time, notify your instructor 24 hours before the scheduled due date.

**Disclaimer**

Every attempt is made to provide a syllabus that is complete and that provides an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester. This may depend, in part, on the progress, needs, and experiences of the students.

**University Policies**

**Honor Pledge**

"I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned."

**Special Needs**

Old Dominion University is committed to achieving equal educational opportunity and full participation for persons with disabilities. It is the university's policy that no qualified person be excluded from participation in any university program or activity, be denied the benefits of any university program or activity, or otherwise be subjected to discrimination with regard to any university program or activity. This policy derives from the university's commitment to non-discrimination for all persons in employment, access to facilities, student programs, activities, and services.

**Disability Services**

In compliance with PL94-142 and more recent federal legislation affirming the rights of disabled individuals, provisions will be made for students with special needs on an individual basis. Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act. The Office of Educational Accessibility (OEA) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.
If you experience a disability which will impact your ability to access any aspect of my class, please present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.

If you feel that you will experience barriers to your ability to learn and/or testing in my class but do not have an accommodation letter, please consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

The Office of Educational Accessibility is located at 1021 Student Success Center and their phone number is (757) 683-4655. Additional information is available at the OEA website: https://www.odu.edu/educationalaccessibility