SYLLABUS

1)

Course Name	Computer Organization
Course Code	
Course Hour and Credit	2
Department	Computer Engineering
Lecturer Name-Surname	Sanjar Erdolatov
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Office Hours	

2) Course Description- objectives
Brief Course Description

This course has been designed with two goals in mind. The first is to cover basic concepts on which the stored program digital computer is formulated. These include the functional units of a computer (hardware), the flow (buses) and storage (memory management) of information, the representation and manipulation of numbers in binary form, and the five to seven levels around which any computer is designed. This goal addresses the question, how does a computer work and how is it organized.
The second goal is to provide students with a firm foundation for follow-on courses later in their program. In particular, the introduction to the CPU (Central Processing Unit) and assembly language programming provides a basis for CS556-Computer Architecture. While the material presented on gates, Boolean Logic and circuit designs provides a basis for further courses in digital design, computer engineering or microprocessor systems.

Ta familiarize each student with:

1. –Hardware units
2. –Binary, Octal and Hexadecimal number systems
3. –Assembly/ Machine Language
4. –Boolean Logic and Applications
5. –Future Developments

3) Outline

Weeks	Topics	Subtopics	Chapter	Home Assignments
1	1-Introduction	1.1 Structured Computer Organization		
2	2-Computer System Organization	2.1 Processors		
3	The Digital Logic Level	3.1 Gates		
4	4- The Micro architecture Level	4.1 An Example Micro Architecture		
5	5- The Instruction Set Architecture	5.1 Overview of ISA Level		
6	6- The Operating System Machine Level	6.1 Virtual Memory		
7	7- The Assemble Language Level	7.1 Introduction to		

		Assemble Language		
8	8- Parallel Computer Architectures	8.1 On Chip Parallelism		
9	9- Reading List And Bibliography	9.1 Suggestions for Further Reading		
10	10- Binary Numbers	10.1 Finite Precision Numbers		
11	11- Floating Point Numbers	11.1 Principles of Floating Point		
12	12- Assemble Language Programming	Overview		
13	Summary			
14	13- Five to Seven Machine Levels Explanation Important Terminology (Not in Book)			
15	Summary			
16	14- Basic Principles of Organization (Not in Book)			
17	Summary			

4) Assessment Policy

Midterm, Final and Applications- Home assessment
Students will be evaluated based on a midterm and a final examination as follows:
Midterm- 40% Final 60 %

All tests are closed book and the final is comprehensive. The results will be converted to a letter grade keeping with grading policies of the college.

5) Course Materials:

Structured Computer Organization, 5th Edition, Andrew S.Tanenbaum, Prentice- Hall, 2006

6) Class Rules:

Students are expected to attend and participate in all classes. Attendance is taken at the beginning of each class. Please notify the instructor in advance of any anticipated absence whenever possible. It is your responsibility to make up any material missed whenever you are absent from class. Assignments are taken from exercises in the text. The homework problems are always covered in class and you are expected to read the section of text corresponding to the homework assignment. Questions about the problems should be raised at the next class meeting. The study of mathematics/ computer science requires regular work and plenty of practice. Postponed homework usually results in poor comprehension and performance.

7) About Web Site

http://www.ece.ucdavis.edu/~vojin/CLASSES/EEC70/W2001/architct-chpt.pdf

8) Prerequest

Prerequisities: CS540 or permission of the instructor.