

Code	: CEN 305
Language	: English
Class	: A-304
Credit	: (3+2)5
Schedule	- Thursday 10:30-12:20 Friday 15:30-17:20
Lecturer	: Asist. Prof. Dr. Orhan DAGDEVIREN
Office	: C-201
Office hours	: Monday and Tuesday 13:30-15:20, Thursday 10:30-12:20
Phone	: 407
-	-
Lab hours	: Friday 15:30-17:20

- Syllabus

1. Prerequisites	: Logic design knowledge.
2. Contents	: MIPS Assembly Programming, Single Cycle CPU, Multicycle CPU, Pipelined CPU, Cache and memory architectures, I/O concepts.
3. Purpose	: The purpose of this course is to teach the basic computer architecture concepts with the assembly programming and the CPU internals.
4. Book	: Computer Organization and Design: The Hardware/Software Interface. Third Edition
5. Attendance	: A student must attend 70% of the courses and 80% of the lab. work. Unless, he/she will be graded as NA.
6. Grading	: Homeworks % 10, Laboratory work % 25, Midterm % 30, Final % 35
7. Akademic honesty rules	: Due to academic rules, cheating is strongly prohibited. The penalty for the cheating is determined by the Izmir University.

- Schedule

Week	Date	Subject	Reading	Notes	Homeworks
1	01 October	Introduction to basic concepts	-	-	-
2	08 October	MIPS: ISA concepts, instruction types	-	-	-
3	15 October	MIPS: Instructions and decisions	-	-	

4	22 October	MIPS: arrays, procedure calls, system calls, stack concept.	-	-	Homework 1
5	29 October	Cumhuriyet Bayramı	-	-	-
6	5 November	Circuit design review Single cycle MIPS datapath with control	-	-	-
7	12 November	Single cycle MIPS datapath with control	-	-	Homework 2
8	19 November	Kurban Bayramı	-	-	-
9	26 November	Multi cycle MIPS datapath with control	-	-	-
10	3 December	Midterms	-	-	-
11	10 December	Multi cycle MIPS datapath with control Pipelined datapath.	-	-	Homework 3
12	17 December	Pipelined datapath. Data and Branch hazards, exceptions.	-	-	-
13	24 December	Data and Branch hazards, exceptions. Memory and caches.	-	-	-
14	31 December	Interrupts, Interfacing, I/O concepts, performance issues	-	-	-
15	8 January	Final exams	-	-	-