



Меѓународен Универзитет Визион - International Vision University
 Universiteti Ndërkombëtar Vizion - Uluslararası Vizyon Üniversitesi

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SYLLABUS

COURSE NAME	COURSE CODE	SEMESTER	COURSE LOAD	ECTS
EMBED MICROPROCESSOR SYSTEMS	CEN - 3008	6	180	6

Prerequisite(s)	None
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Course Language	Macedonian, Turkish, English
Course Type	Required
Course Level	First Cycle
Course Lecturer	
Course Assistants	
Classroom	
Extra Curricular Office Hours and Location	Meeting: Consultancy:

Course Objectives	The aim of this course is to teach to design a microprocessor based systems and implementing various applications in the lab.
Course Learning Outcomes	In the end of this course students will be able to: <ul style="list-style-type: none"> To have an ability to design a microprocessor based systems; To develop a target based software.
Course Contents	The contents of this course are: Number systems, Computer architecture: Memory, Central Processing Unit (CPU), Input/Output Devices (I/O), Memory: Physical and functional features, design of memory, CPU: Structure of CPU, addressing methods, operational codes, Software technics: Assembly language, syntax, pseudo-codes, assembler, interrupt, stack, I/O Devices: Parallel interface (PIA), asynchronous serial interface (ASIA), Peripheral devices, and the examples of fundamental application.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Introduction, number systems, fundamental logic components	Related Chapters of Course Sources
2	Memory and design	Related Chapters of Course Sources
3	Structure of CPU	Related Chapters of Course Sources
4	Instruction, programming, addressing methods	Related Chapters of Course Sources
5	Instruction (continue)	Related Chapters of Course Sources
6	Parallel Interface Adaptor	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Serial Interface Adaptor	Related Chapters of Course Sources
9	Subroutine, interrupt and stack concept	Related Chapters of Course Sources
10	Digital Analog Converts, sample applications	Related Chapters of Course Sources
11	Analog Digital Converts, sample applications	Related Chapters of Course Sources
12	Peripheral devices	Related Chapters of Course Sources
13	Samples of fundamental application	Related Chapters of Course Sources
14	Samples of fundamental application	Related Chapters of Course Sources
15	Final Exam	Related Chapters of Course Sources

ECTS / WORKLOAD TABLE

Presentation / Seminar			
Hours for off-the-classroom study (Pre-study, practice)	14	3	42
Midterm Exam	1	12	12
Final examination	1	14	14
Total Work Load			
ECTS		8	

GENERAL PRINCIPLE RELATED WITH COURSE

Dear students,

In order to be included, learn and achieve full success that you deserve in the courses you need to come well prepared by reading the basic and secondary textbooks. We are expecting from you carefully to obey to the course hours, not to interrupt the lessons unless is very indispensable, to be an active participant on the courses, easily to communicate with the other professor and classmates, and to be interactive by participating to the class discussions. In case of unethical behavior both in courses or on exams, will be acting in framework of the relevant regulations. The attendance of the students will be checked in the beginning, in the middle or at the end of the lessons. Throughout the semester the students who attend to all lectures will be given 15 activity-attendance points in addition to their exam grades.

COMPULSORY LITERATURE

No	Name of the book	Author's Name, Publishing House, Publication Year
1	Mikro İşlemciler ve Mikro Denetleyiciler	Yük. Tek. Öğr. Bedri Bahtiyar, Nobel Yayın Dağıtım, 2007
2	Logic and Computer Design	M. Morris Mano, Charles Kime, Prentice Hall 2007
3		

ADDITIONAL LITERATURE

No	Name of the book	Author's Name, Publishing House, Publication Year
1	Mikroişlemciler	M. Kaya Yazgan, Nobel Yayın Dağıtım, 2015
2	Computer Organization	Patterson and John L. Hennessy & Morgan Kaufman 2011
3		

EVALUATION SYSTEM

Underlying the Assessment Studies	NUMBER	PERCENTAGE OF GRADE
Attendance/Participation	15	%10
Project / Event	1	%20
Mid-Term Exam	1	%35
Final Exam	1	%35
TOTAL	17	%100

ETHICAL CODE OF THE UNIVERSITY

In case of the students are cheating or attempt to cheat on exams, and in the case of not to reference the sources used in seminar studies, assignments, projects and presentations, in accordance to the legislations of the Ministry of Education and Science of Republic of Macedonia and International Vision University, will be applied the relevant disciplinary rules. International Vision University students are expected never to attempt to this kind of behavior.