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
ELECTRONIC SYSTEMS	**4010**	**2**	**180**	**6**

Prerequisite(s)	None

Course Language	Turkish
Course Type	Required
Course Level	First Cycle
Course Lecturer	
Course Assistants	
Classroom	
Extra Curricular Office Hours and Location	**Meeting:** **Consultancy:**

Course Objectives	The objective of this course is to teach the structure of basic electronic elements: Diodes BJT, JFET and OP-AMP, its circuit analysis and using the Diode, BJT, MOSFET technology basic logic gates to gain the implementation skills.
Course Learning Outcomes	The students who succeeded in this course: • Will be able to learn DC and AC analysis methods. In addition, using the Diode, BJT, MOSFET technology basic logic gates to gain the implementation skills. • Will be able to understand the kinds of transistors and to apply it. • Will be able to explain the oscillator structure, role and use of area and creates an electronic circuit board. • Will be able to learn the Coder - Decoder, sequential logic circuits and to apply it. • Will be able to understand oscilloscope, the rest of the measuring instrument and its testing in practice.
Course Contents	The course contents are: crystal structures of solids and free electrons, semiconductors, semiconductor diode, bipolar semiconductors - transistors, static and dynamic testing of the transistor working order, transistor amplifier and switch tasks, the importance of small and large signal transistors, Amplifiers, riser types and usage, inversion and noninversion amplifiers, differential amplifier, the half-wave and full-wave router, oscillator and varieties, LC oscillator, logical gates, microprocessors and microcomputers.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Crystal structures of solids and free electrons, semiconductors	Related Chapters of Course Sources
2	Semiconductor, diode, its structure, varieties, properties and use	Related Chapters of Course Sources
3	Transistors, transistors work queue, static and dynamic testing, practical measurements	Related Chapters of Course Sources
4	Transistor amplifiers and key tasks, the importance of small and large signal transistors	Related Chapters of Course Sources
5	Amplifiers, riser types and usage, inversion and noninversion amplifiers	Related Chapters of Course Sources
6	Differential amplifier structure, properties and use, Routers, half-wave and full-wave router	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Oscillator and varieties, LC oscillator, sinusoidal and non-sinusoidal oscillator types	Related Chapters of Course Sources
9	Logic gates, abstract math functions	Related Chapters of Course Sources
10	Multiplex and their structures, properties and use	Related Chapters of Course Sources
11	Encryption and decryption. Coders and decoders	Related Chapters of Course Sources
12	Programmable electronic circuits, characteristics and uses of sequential logic circuits	Related Chapters of Course Sources
13	Memory, types and principle of working, analog-digital converters and digital-to-analog converters	Related Chapters of Course Sources
14	Microprocessors and microcomputers. Microprocessors development history, features, usage	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	**6**		

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.

SOURCES

COMPULSORY LITERATURE		
No	**Name of the book**	**Author's Name, Publishing House, Publication Year**
1	Elektronik 1	Yrd. Doç. Dr. Hüseyin Demire. Birsen Yayınevi, İstanbul, 2012
2	Електроника	М.Ќамилов, ЕТФ Скопје, 2002
3		

ADDITIONAL LITERATURE		
No	**Name of the book**	**Author's Name, Publishing House, Publication Year**
1	Sayısal yönetim birimlerinin sentezi	Novruz Alahhverdi, Şirzad Kahramanlı, Erkan Danacı, Meram E.M.L. Maatbası, Konya 1995.
2		
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.