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
DISCRETE MATHEMATICS	CEN-2002	3	210	7

Prerequisite(s)	None

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 study is to provide information about the basics of discrete structures and discrete mathematics, to describe the basic mathematical structure of the computer, mathematical thinking, teaching how to establish cause-effect relationships, and gaining the algorithmic thinking.
Course Learning Outcomes	The students who successfully complete this course, will be able to; • To enable students to solve problems by analytical, numerical and statistical methods and constructing mathematical models. • To enable students to solve problems by using algorithms that can be applied to computers. • To enable students to use mathematics in other disciplines. • To enable students to use the ability of abstract thought.
Course Contents	The course begins with set theory and we cover: Computer Operating Principles, logic, counting, Sets, matrices, Graph Theory, Directed Graphs, Algebraic Systems, etc.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Propositional logic and proof methods	Related Chapters of Course Sources
2	Sets, Functions, Arrays	Related Chapters of Course Sources
3	Algorithms	Related Chapters of Course Sources
4	Computational Number Theory and Applications	Related Chapters of Course Sources
5	Correlations and Transactions	Related Chapters of Course Sources
6	Matrices	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Mathematical Reasoning	Related Chapters of Course Sources
9	Graph Theory	Related Chapters of Course Sources
10	Lattice	Related Chapters of Course Sources
11	Trees	Related Chapters of Course Sources
12	Recurrence relation	Related Chapters of Course Sources
13	Boolean Algebra	Related Chapters of Course Sources
14	Finite State Machines	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	Discrete Mathematics and Its Applications	Rosen K. H., Mc Graw Hill, 2007
2	Ayrık İşlemsel Yapılar	Füsun Selçuk, Nejat Yumuşak, Nilüfer Yurtay, Sakarya Kitabevi, 2005
3		

COMPULSORY LITERATURE		
No	Name of the book	Author's Name, Publishing House, Publication Year
1		
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.