



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

Adres: Ul. Major C. Filiposki No.1, Gostivar – Makedonya
tel: +389 42 222 325, www.vizyon.edu.mk, info@vizyon.edu.mk

SYLLABUS

COURSE NAME	COURSE CODE	SEMESTER	COURSE LOAD	ECTS
MODELING AND SIMULATION	4033	7	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	This course describes basic sytem simulation concepts, necassary statistical foundation for simulating, principal simulation notions in simulation software.
Course Learning Outcomes	<ul style="list-style-type: none">• Defining the principle components of system,• Statistics foundations used for simulation,• Simulating real systems,• Principal simulation notions in simulation software.
Course Contents	Introduction, Monte Carlo simulation, Probability distrubition, Random Change production, Simulation modelling via software, Variance reduction.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Introduction	Related Chapters of Course Sources
2	Monte Carlo simulation(1)	Related Chapters of Course Sources
3	Monte Carlo simulation (2)	Related Chapters of Course Sources
4	Probability distribution	Related Chapters of Course Sources
5	Random number generation	Related Chapters of Course Sources
6	Random Change production	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Output analysis (1)	Related Chapters of Course Sources
9	Output analysis (2)	Related Chapters of Course Sources
10	Simulation modelling via software (1)	Related Chapters of Course Sources
11	Simulation modelling via software (2) Matlab and Arena documentation	Related Chapters of Course Sources
12	Simulation modelling via software (3)	Related Chapters of Course Sources
13	Simulation modelling via software (4)	Related Chapters of Course Sources
14	Variance reduction	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	Matematiksel Modelleme ve Simülasyon	Fikri Öztürk, Levent Özbek, Ekim, 2004
2	Simulation Modeling and Arena	Wiley. Banks J., Carson J., Nelson B., Nicol D., 2001
3		

ADDITIONAL 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.