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
COMPUTER TOOLS IN ENGINEERING	**4022**	**4**	**180**	**6**

Prerequisite(s)	None

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

Course Objectives	The purpose of this course is to introduce computational tools used in engineering and numerical calculations for solving simple problems. It also aims to teach the data analysis and graphics.
Course Learning Outcomes	The students who succeeded in this course: • Will be able to explain the Numerical calculations, data analysis and graphics; • Will be able to understand the data calculations types, structures, control statements and input-output functions; • Will be able to use the tools to solve mathematical and engineering problems.
Course Contents	The course contents are data expressions, variables, instructions and transactions, control statements, data analysis, solution of equation, programming tools for displaying the input-output data and calculation.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Introduction	Related Chapters of Course Sources
2	Variables, expressions	Related Chapters of Course Sources
3	Instructions and transactions	Related Chapters of Course Sources
4	Instructions and transactions	Related Chapters of Course Sources
5	Input-output transactions	Related Chapters of Course Sources
6	Visualization, drawing	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Visualization, drawing	Related Chapters of Course Sources
9	Control Statements	Related Chapters of Course Sources
10	Control Statements	Related Chapters of Course Sources
11	Solution of linear algebraic equations	Related Chapters of Course Sources
12	Solution of linear algebraic equations	Related Chapters of Course Sources
13	Solution of linear algebraic equations	Related Chapters of Course Sources
14	Basic statistics, search, and sort	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	Bilgisayar Ağları ve İlteişim	Abdullah Kuzu, Nobel Akademik Yayıncılık
2	A Practical Introduction to Programming and Problem Solving	S. Attaway, Matlab, Elsevier, 2009
3	Elementary Mathematical and Computational Tools for Electrical and Computer Engineers Using MATLAB	J. T. Manassah, CRC Press, 2006

ADDITIONAL LITERATURE		
No	**Name of the book**	**Author's Name, Publishing House, Publication Year**
1	Numerical Recipes in FORTRAN 77:The art of Scientific Computing	W. H., Teukolsky, S. A., Veterling, W. T., Flannery, B.P., Cambridge University Press, 2nd Edition
2	Advanced Engineering Mathematics	E. Kreyszig, John Wiley & Sons, 2006
3	Computer Networks And Internets	Douglas E. Comer, Prentice Hall, 2009

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.