

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
GEOMETRIC TRANSFORMATIONS	4023	4	160	6

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

Course Objectives	To give fundamental information about the various geometries along to undergraduate and master period student needs, especially to gain information that will help to make distinguishing between these geometries. To teach about solution ways of problems encountered in this area		
C			
Course Learning	The students who complete the course successfully; will be able to:		
Outcomes			
	• Describe the basic concepts of Kinematics.		
	• Compare Affine space structure and Euclidean space structure.		
	• Prove and comments about isometries of Euclidean space.		
	• Identifies and classifies movements		
	• Solve the problems with transformation associated groups		
	Classify Isometries.		
Course Contents	Contents of this course are: Affine space, affine subspace, Euclidean space, Euclidean		
	subspace, Isometries, Features of Motion, Movements and congruence, shift, Rotations		
	and Reflections.		

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Affine Spaces, Affine Coordinate Systems	Related Chapters of Course Sources
2	Affine Transformations, Affine Group	Related Chapters of Course Sources
3	Affine Subspaces	Related Chapters of Course Sources
4	Euclidean space, Euclidean coordinator system	Related Chapters of Course Sources
5	Euclidean subspaces, Isometries	Related Chapters of Course Sources
6	General Introduction to Transformation	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Euclidean space motion	Related Chapters of Course Sources
9	Plane Movement Types, shifts	Related Chapters of Course Sources
10	Rotation	Related Chapters of Course Sources
11	Shifts and Rotation Composition	Related Chapters of Course Sources
12	Reflections	Related Chapters of Course Sources
13	Shifting Reflections	Related Chapters of Course Sources
14	Circles Geometry	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.

KAYNAKLAR

COMPULSORY LITERATURE			
No	Name of the book	Author's Name, Publishing House, Publication Year	
1	Dönüşümler ve Geometriler,	Hacısalihoğlu, H.H. Ankara Üniversitesi Fen Fakültesi, Matematik Bölümü,1998	
2	Geometric Transformations	Michael E Mortenson, 1st Edition	
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.