



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
EXAMINATION OF STRUCTURES	ARC-4011	8	150	5

Prerequisite(s)	None
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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 purpose of the course is to get acquainted with study of methods and techniques for testing structures.
Course Learning Outcomes	<ul style="list-style-type: none"> • Study of the principles of operation of measuring sensors and measuring instruments • Stress and deformation relations for characteristic states • Fundamentals of Electrostatic Measurement of Dilatation, Whitston Bridge • Characteristic schemes of the measuring bridge, quarter, half, full bridge • Application of electro-resistant measuring tapes for measuring characteristic stress / dilation states
Course Contents	The student acquires knowledge and skills to organize and perform testing of structures in laboratory and field conditions.

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	History of testing of structures	Related Chapters of Course Sources
2	Tasks and objectives of the examination	Related Chapters of Course Sources
3	Types and division of tests	Related Chapters of Course Sources
4	Mechanical measuring instruments	Related Chapters of Course Sources
5	Geodetic measurement of deformations / displacement	Related Chapters of Course Sources
6	Electro-resistant measuring tapes	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Temperature compensation	Related Chapters of Course Sources
9	Influences on measurement accuracy	Related Chapters of Course Sources
10	Measuring instruments, data loggers	Related Chapters of Course Sources
11	Measuring tapes for special purpose	Related Chapters of Course Sources
12	Measuring tapes for special purpose	Related Chapters of Course Sources
13	Construction of measuring sensors, based on electro-resistant measuring tapes, for registration of dilation, displacement, force	Related Chapters of Course Sources
14	Inductive, capacitive and electro acoustic measurement of dilatations / stresses	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		5	

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	Испитување на конструкции	Петар Цветановски, УКИМ скрипта во електронска форма, 2010
2	Yapı İnceleme Yöntemleri	Ahmet Ercan, Birsen Yayınevi, 2003
3	Test and measurement: Know it all	J.S.Wilson, S.Ball, C.Huddleston, E.Ramsden, D.Ibrahim, Newnes, 2008

ADDITIONAL LITERATURE		
No	Name of the book	Author's Name, Publishing House, Publication Year
1	Примери од испитување на конструкции“	Петар Цветановски, Денис Поповски, УКИМ материјал во електронска форма, 2015
2	Tarihi Yapıların İncelenmesi ve Sismik Güçlendirme Metodları	Ali Bayraktar, Beta, 2006
3	Strain Gauge Technology	Albert.L., Springer, 2002

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.