



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
BUILDING FOUNDATIONS	CIV-3003	1	180	6

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	In Civil Engineering, it is aimed to provide information on the basic concepts of foundation construction and the application of soil mechanics to foundation engineering designs.
Course Learning Outcomes	<ol style="list-style-type: none"> 1- The student has sufficient knowledge of mathematics, science and related engineering disciplines; gain the ability to use theoretical and applied knowledge in these fields in complex engineering problems. 2- The student gains the ability to identify, define, formulate and solve complex engineering problems; for this purpose, will have the ability to choose and apply appropriate analysis and modeling methods. 3- The student gains the basic principles to be able to solve the foundations in civil engineering. 4- The student will have the ability to produce solutions to problems related to soils. 5- Civil engineering student is brought into the field of Geotechnical Engineering.
Course Contents	Soil studies / Soil pressure theories / Retaining structures, retaining walls / and palplans / Protection and support systems of foundation pits / Stability of slopes / Shallow foundations / Deep foundations

WEEKLY SUBJECTS AND RELATED PREPARATION STUDIES

Week	Subjects	Related Preparation
1	Soil studies, purpose, scope and stages; drilling, sampling, field experiments	Related Chapters of Course Sources
2	Plastic equilibrium states in soils, Rankine Earth Pressure Theories	Related Chapters of Course Sources
3	Effect of wall friction, Coulomb theory of earth pressure, Application	Related Chapters of Course Sources
4	Soil holding structures, types, places of use, general design principles, Retaining walls, Application	Related Chapters of Course Sources
5	Sheet piles, sheet pile calculation principles; Non-anchor sheet pile calculation Calculation of anchored sheet piles, Application	Related Chapters of Course Sources
6	Drilling and supporting foundation pits, Internally supported excavations, Application Formulas and Pile Groups, Application	Related Chapters of Course Sources
7	Mid-term Exam	Related Chapters of Course Sources
8	Stability concept, Stability of slopes and slopes	Related Chapters of Course Sources
9	Slice methods in stability of slopes, Fellenius and Simplified Bishop Methods, Application	Related Chapters of Course Sources
10	Shallow foundations, types, design principles and foundation bearing theory	Related Chapters of Course Sources
11	Safe bearing capacity and net bearing capacity, number of safety, Allowable settlements, Application	Related Chapters of Course Sources
12	Deep foundations, their types, Design principles and application examples, Calculation of bearing capacity of piles,	Related Chapters of Course Sources
13	Dynamic Pile Bearing Force Formulas and Pile Groups, Application	Related Chapters of Course Sources
14	Dynamic Pile Bearing Force	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	Zemin İncelemesi ve Temel Tasarımı,	Prof. Dr. S. Yıldırım (Ders Kitabı 1)
2	Zemin İncelemesi ve Temel Tasarımı,	Prof. Dr. S. Yıldırım (Ders Kitabı 1)
3	Sığ (Yüzeysel) Temeller	A. Birand

ADDITIONAL LITERATURE

No	Name of the book	Author's Name, Publishing House, Publication Year
1	Yüzeysel Temeller ve Duvarlar	Çözümlü Örnekler, A. Birand
2	Kazıklı Temeller,	A. Birand
3	Zemin Mekaniği Problemleri,	V. Kumbasar ve F. Kip

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.