

Course title: Soil Mechanics

Course Basic Information			
Academic Unit:	Faculty of Civil Engineering		
Course Name:	Soil Mechanics		
Level:	Bachelor		
Course Status:	Mandatory		
Year of Study:	Second (II), IV th semester		
Number of Hours per Week:	2+2		
ECTS Credits:	6		
Time /Venue:	According to the Timetable		
Course Teacher:	Prof.asoc.Dr. Neritan Shkodrani		
Contact Details:	Email: neritan.shkodrani@uni-pr.edu UPT-FCE www.fn.uni-pr.edu		
Course Description			
Course Description	Course Soil mechanics includes: Soil exploring from the surface of the ground, "In Situ" tests. Soil porosity, specific gravity and volume weight, soil moisture and consistency, soil compression, laboratory and field examinations. Soil drainage, laboratory tests for determination of coefficient of soil filtration in laboratory and field. Shear strength of soil. Compressibility of soil. Distribution of stress in soil mass, Boussinqq equations, Steinbrenner and Newmark method. Consolidation of the soil. Slope stability. Earth pressures on the retaining wall. Soil bearing capacity.		
Course Objectives:	Course Objectives: Understand the basic principles of soil Mechanics, which will later be used for the analysis of the stability of various constructions in civil engineering.		
Learning Outcomes:	Upon completing the lectures of this course, students will have understood the fundamentals of soil mechanics, will be able to carry out laboratory testing and field tests, interpretation of laboratory examination data, and field examinations. To possess the application of physico-mechanical and engineering features in engineering practice, to know all calculation methods during stability analysis, to compile the test program for the "Geomachanic Elaboration" of the site of the respective construction facility.		
Student Workload (Consistent with the Learning Outcomes)			
Activity	Hours	Day/ Week	Total
Lectures	3	15	45
Theory/ Lab Work	1	5	5
Practical Work	0	0	0
Contact Hours with Teacher /Consultations during Office Hours	1	15	15
Field Work	1	10	10
Colloquium, Seminars	2	2	4
Homework	2	15	30
Self-study Time (in the Library or at Home)	1	15	15

Final Exam Preparation	2	11	22
Evaluations (Tests, Quiz, Final exam)	2	1	2
Projects, Presentations, etc.	2	1	2
Total			150

Teaching Methodology:	<i>Lectures, exercises and elaborates, "In situ"</i>
Evaluation Methods:	<i>In the assessment should be assigned the percentage of each estimate intermedier partial or final assessment. One of the ways the assessment would have been as follows: The first assessment: 25% Homework or other commitments 10% Regular attendance 10% Final Exam 55% Total 100%</i>

Basic Literature:	[1] Braja Das, Principle of Geotechnical Engineering, USA
Additional Literature:	[2] Prof.Dr. Ervin Nonweiler, Mehanika tla i temeljenje gradevina, Zagreb [3] V.N.S Murthy, Geotechnical Engineering, USA

Course Plan:	
Week	Title of the Lecture
Week 1:	Classification and qualitative identification of soils
Week 2:	Subsoil exploratiob from the surface of the ground
Week 3:	Soil phase (mineralogical and chemical composition, structure, texture, water in soil, capillary rise)
Week 4:	Porosity of soil, volume weight, humidity, soil consistency (limits and consistency indexes)
Week 5:	Soil compaction
Week 6:	Water permeability of soil
Week 7:	Shear strength of soil
Week 8:	Compressibility of soil
Week 9:	Stress distribution in a soil mass
Week 10:	Settlement calculation from laboratory data and "in situ" tests
Week 11:	Soil consolidation
Week 12:	Slope stability
Week 13:	Slope stability-continue
Week 14:	Lateral esrth preassure
Week 15:	Soil bearing capacity

Academic Policies and Rules of Civility:
<i>The teacher assigns the criteria for regular attendance in classes and rules of conduct, to maintain the peace in teaching, disconnected mobile phones, entrance in room with time, etc.)</i>