SOIL MORPHOLOGY AND CLASSIFICATION

1	Course Title:	SOIL MORPHOLOGY AND CLASSIFICATION	
2	Course Code:	TOP5953	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	none	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. ERTUĞRUL AKSOY	
15	Course Lecturers:	yok	
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi, Ziraat Fakültesi, Toprak Bilimi ve Bitki Besleme Bölümü 16059 Görükle Kampüsü, Nilüfer/Bursa Tel: 0-224-2941534 E-posta: aksoy@uludag.edu.tr	
17	Website:		
18	Objective of the Course:	Presenting basic principle of Soil Taxonomy and WRB (FAO/Unesco) classification systems and to teach classification techniques of Soil Taxonomy and WRB (FAO/Unesco) soil classification systems and using methodology of field, laboratory and meteorological data during the soil classification.	
19	Contribution of the Course to Professional Development:	Knows the most used soil classification systems and their properties in the world and in our country, and can classify soil profiles according to these systems.	
20	Learning Outcomes:		
		1	To describe the principles and application of soil classification.
		2	To interpret the Soil Taxonomy and WRB (FAO/Unesco) soil classification systems.
		3	To implement soil classification according to Soil Taxonomy and WRB (FAO/Unesco) classification systems using field, laboratory and meteorological data.
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21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Introduction Definition of soil and basic principles on soil concept Soil morphology	The great soil groups developed in Turkey
2	Soil forming factors	The effect of soil forming factors (climate, natural vegetation, topography and time) on soil formation and their distribution.
3	Soil classification concept and soil classification systems	Soil classification in Turkey.
4	Basic Principles and structures of Soil Taxonomy and WRB (FAO/unesco) systems Nomenculature Categorical level	Determination of Physical , chemical and morphological analysis result of the defined soil profile and meteorological data according to soil classification system principles
5	Diagnostic horizons Epipedons (diagnostic surface horizons)	Determining of the epipedons due to given Physical, chemical and morphological properties
6	Diagnostic horizons diagnostic subsurface horizons	Determining of the diagnostic subsurface horizons due to given Physical, chemical and morphological properties
7	Diagnostic properties soil moisture and soil temperature regime	Determining of the soil moisture and soil temperature regime due to meteorological data (given 1. Homework subjects)
8	sample profiles and presentations to the homework subject	Advanced studies on homework-1.
9	Order and suborder Entisols Vertisols İnceptisols	Use of Keys to soil taxonomy guide for soil classification Properties of soils classified as Entisol, Vertisol and Inceptisol Orders Use of Keys to soil taxonomy guide. Field study.
11	Aridisols	Properties of soils classified as
12	Histosols Gelisols	Gelisol Orders Use of Keys to soil taxonomy guide.
13	The WRB (FAO/Unesco) Soil classification system	Use of WRB (FAO/Unesco) soil classification system guide
14	Presentation and evaluation of homework	Evaluation of homework reports, explanation of possible

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	2.00	28.00
Homeworks	3	15.00	45.00
Projects	0	0.00	0.00
Field Studies	4	8.00	32.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	20.00	20.00
Total Work Load			181.00
Total work load/ 30 hr			6.03
ECTS Credit of the Course			6.00

22	Textbooks, References and/or Other Materials:	Dinç, U., Kapur, S., Özbek, H., Şenol, S.1999. Toprak Genesisi ve Sınıflandırması, 3.baskı. Çukurova Üniversitesi Ziraat Fakültesi Ders Kitabı No:C-130, ÇÜZF, Adana.376s. Diressen, P.M., Dudal R., 1989. Lecture Notes on the Geography, Formation, Properties and use of the Mojor Soils of the World. Agricultural Univ. Wageningen. Fanning, D.S. and M.C.B. Fanning, 1989. Soil: Morphology, Genesis and Classification,. John Wiley and Sons, USA . 395p. Schoeneberger, P.J., D.A. Wysocki, E.C. Benham and W.D. Broderson, 2002. Field Book for Describing and Sampling Soils, Version 2.0, p: 189. National Soil Survey Center, Lincoln., NE.USDA-NRCS. Soil Survey Staff 1999. Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Surveys. 2nd edn. USDA-NRCS Agric. Handbook No. 436. US Government Printing Office, Washington, DC, USA, 871 p. Soil Survey Staff 2006. Keys to Soil Taxonomy. 10th edn. USDA-NRCS. US Government Printing Office, Washington DC, USA, 332 p. FAO/UNESCO, 1990. FAO-Unesco Soil Map of the World, Revised Legend, p: 119. World soil resources report No: 60, FAO, Rome, Italy FAO.,1990. Guidelines for Soil Profile Description, Rome, Italy Burt, R. (ed.) 2004. Soil Survey Laboratory Methods Manual. Soil Survey Investigations Report No. 42, version 4,0. USDA-NRCS, US Government Printing Office, Washington, DC, USA, 700 p.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00
Contribution of Term (Year) Learning Activities to Success Grade		0.00
Contribution of Final Exam to Success Grade		100.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		term homeworks, attandes performance to lecture and final exam

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	4	0	5	4	4	0	0	0	4	5	0	0	0	0	0

ÖK2	5	4	0	5	0	0	0	0	0	4	5	0	0	0	0	0
ÖK3	5	4	0	5	0	0	4	4	3	5	5	3	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**