



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Soil Knowledge and Analysis							
Course Code		LBT213		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The aim of this course is to enable students to recognize soil formation, rocks and minerals in the soil and the elements that compose them, and to establish relationships between the physical, chemical and biological properties of the soil. To provide the necessary analysis and interpretation of the analysis to reveal the physical and chemical properties of the soil.							
Course Content		Soil elements and minerals, formation of soil, morphology of soil, physical, chemical and biological properties of soil, organic matter of soil, soil erosion and conservation. Comparison of the methods used in determining the fertility conditions of the soils, issues to be considered in the analysis, sources of errors and minimization of errors, taking soil samples, preparing them for analysis and conducting related productivity analysis							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading

1	AYDIN M. Ve KILIÇ Ş. 2010 Toprak Bilimi ISBN : 978-605-395-378-4. 2. AKALAN İ. 1988 Toprak Bilgisi. Ankara Üniversitesi Ziraat Fakültesi Yayın No: 1058 Ders Kitabı: 309 Ankara. 3.Kacar, B., 2009.Toprak Analizleri.' 2. Baskı Nobel Yayınları, Ankara.
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Week	Weekly Detailed Course Contents	
1	Theoretical & Practice	Introduction and soil definition
2	Theoretical & Practice	Soil elements and minerals
3	Theoretical & Practice	Igneous, sedimentary and metamorphic rocks
4	Theoretical & Practice	Soil formation
5	Theoretical & Practice	Soil morphology and profile
6	Theoretical & Practice	Physical properties of soil
7	Theoretical & Practice	Chemical properties of soil
8	Theoretical & Practice	Soil organisms (Midterm Exam)
9	Theoretical & Practice	Soil organic matter
10	Theoretical & Practice	Soil erosion and conservation
11	Theoretical & Practice	Soil classification
12	Theoretical & Practice	Soil using
13	Theoretical & Practice	Soil-environment relationships
14	Theoretical & Practice	An overview

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Individual Work	14	1	0	14
Midterm Examination	1	14	1	15



Final Examination	1	14	1	15
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	To be able to define soil formation and morphology
2	To be able to define physical properties of soil and to establish a relationship between soil physical properties and soil fertility
3	To be able to define the chemical properties of soil and to establish a relationship between soil chemical properties and soil fertility
4	Comparison of methods that can be used to determine the fertility status of soils
5	Learning the principles of collecting soil samples and preparation techniques for analysis
6	To gain the skill of interpretation and selection in the selection of methods to be used in the analysis of soil samples
7	To know the properties and usage areas of the materials and devices to be used in the analysis
8	To be aware of the points to be considered in the analysis
9	Awareness of error sources in analysis and minimizing errors experience
10	Evaluation of analysis results and development of interpretation skills in terms of soil fertility

Programme Outcomes (Laboratory Technology)

1	To be able to comprehend social, cultural and social responsibilities, to be able to follow national and international contemporary problems and developments
2	Atatürk is bound to Atatürk nationalism in the direction of principles and reforms; Adopting the national, moral, spiritual and cultural values of the Turkish people, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; Have a love of language and a consciousness; To have the ability to use as much of a foreign language as he would need to read, taste and habit and professionally.
3	To be able to recognize the basic hardware units and operating systems of a computer, having information about internet usage and preparing documents, spreadsheets and presentations on computer by using office programs.
4	Acquires theoretical and practical knowledge at the basic level in mathematics, science and vocational field.
5	With the knowledge of laboratory technology in the field, he knows and analyzes problems, brings interpretation of data and suggests solutions.
6	In laboratories, according to the prepared business plan and program, necessary work can be done to obtain the desired quality products.
7	To have professional and ethical responsibility in business life.
8	Development and change are open, follow scientific social and cultural innovations, and develop themselves constantly.

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L5	L6
P1	5	5
P2	5	5
P3	5	5
P4	5	5
P5	5	5
P6	5	5
P7	5	5
P8	5	5

