



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Soil Science and Fertilization							
Course Code		TRİ110		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	74 (Hours)	Theory	2	Practice	1	Laboratory	0
Objectives of the Course		To introduce soil, to teach basic information about soil formation and physical, chemical and biological properties of the soil and soil conservation. To teach basic information about feeding plants, problems encountered and solutions, to introduce fertilizers, to teach to do correct fertilization using efficient marrow methods .							
Course Content		Soil profile, classification, tekstrü issues; plants nutrients, fertilizer varieties and fertilizer contains methods for deficiencies.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	Toprak Bilgisi Aydemir, O., Akgül, M., Canbolat, M.Y. ve Isildar, A.A. 2005. S. Demirel Üni Zra. Fak. Yayınları
2	Fundamentals of soil science
3	Nature and properties of soils
4	Güneş, A., Alpaslan, M. ve İnal, A. 2004. Bitki Besleme ve Gübreleme. A.Ü. Ziraat Fakültesi yayın No: 1539, Ders Kitabı: 492
5	Kacar, B. ve Katkat, V. 2006. Bitki Besleme. Nobel Yayın
6	Kacar, B. ve Katkat, V. 1999. Gübreler ve Gübreleme Tekniği. Vipaş A.Ş. Bursa
7	Marschner, H. 1995. Mineral Nutrition of Higher Crops. Academic

Week	Weekly Detailed Course Contents	
1	Theoretical	Description of soils, soil parent material and bedrock
	Practice	Field work
2	Theoretical	Soil formation, soil profile and soil classification
	Practice	Field work
3	Theoretical	Soil texture and structure, soil color, consistency, and soil water
	Practice	Field work
4	Theoretical	Soil aeration and soil temperature, soil chemical composition, ion-exchange and soil reaction
	Practice	Field work
5	Theoretical	And biological properties of soil organisms
	Practice	Field work
6	Theoretical	Soil organic matter, erosion types
	Practice	Field work
7	Theoretical	Erosion control, improper land use and soil problems
	Practice	Field work
8	Intermediate Exam	midterm exam
9	Theoretical	Plant nutrition elements needed: to this day in the field of plant nutrition studies and general functions of plant nutrients
	Practice	Field work
10	Theoretical	Nutrients and nutrient intake are essential mechanisms in plants
	Practice	Field work
11	Theoretical	Nitrogen, Phosphorus, Potassium, Calcium
	Practice	Field work



12	Theoretical	Magnesium, sulfur, iron, manganese, boron, zinc, copper
	Practice	Field work
13	Theoretical	Molybdenum, chloride, sodium, cobalt, vanadium, silicon and other elements
	Practice	Field work
14	Theoretical	Introduction of varieties of fertilizers and manure fertilizers and description
	Practice	Field work
15	Theoretical	Calculation methods of fertilization and fertilization
	Practice	Field work
16	Final Exam	FINAL EXAM

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	1	14
Land Work	8	0	2	16
Reading	7	0	2	14
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
Total Workload (Hours)				74
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	Know the basic properties of soils
2	Determine the functions of nutrients in plants and deficiencies of nutrients
3	Knows fertilization methods and makes fertilization programs and applications
4	Know the physical properties of soils
5	Know the chemical properties of soils
6	Know the biological properties of soils

Programme Outcomes (Agricultural Management)

1	To be able to comprehend the basic management, economy and agricultural management
2	To be able to acquire basic information in excessive, profitable and quality production of vegetable and animal products
3	To be able to manage production in factory, to prepare project and to keep business records
4	To be able to develop solutions in agricultural management
5	To be able to comprehend optimally preparation and marketing in agricultural foods process
6	To be able to follow professional developments and to acquire knowledge to use technological resources
7	To be able to reach the scientific data using computer and the internet
8	To be able to determine the problem about agricultural management, to analyze, to develop solutions and suggestions
9	To be able to comprehend Atatürk Principle and Revolution
10	To be able to take precautions about the problems related to first aid and occupational safety in the enterprise, to solve the problems
11	To be able to use Turkish well, to communicate orally and in writing, to have knowledge of professional ethics and responsibility

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

	L1	L2	L3
P1	1	1	1
P2	1	1	1
P3	4	4	4
P4	5	5	5
P5	2	3	2
P6	2	2	2
P8	4	4	4

