

COURSE LIST Institute of Natural and Applied Sciences

Field : Soil Science

Course Title	Code	ECTS Credit	COMU Credit	Lecturer
Advanced Soil Physics	ULP-21-TO001	7.5	3	Assoc. Prof. Dr. Yasemin Kavdır
Soil Quality	ULP-21-TO002	7.5	3	Assoc. Prof. Dr. Yasemin Kavdır
Use of Liquid and Solid Wastes As a Soil	ULP-21-TO003	7.5	4	Assoc. Prof. Dr. Yasemin Kavdır
Soil Science	ULP-06-TO004	5	3	Assoc. Prof. Dr. Yasemin Kavdır
Soil Physics	ULP-06-TO005	7,5	3	Assoc. Prof. Dr. Yasemin Kavdır

Course Code	ULP-21-TO001
Name of the Course in English	Advanced Soil Physics
Name of the Course in Turkish	İleri Toprak Fiziği
Language of the Course	English
Level of the Course	Master
Lecturer	Assoc. Prof. Dr. Yasemin Kavdır
ECTS Credit	7.5
COMU Credit	3
Description	1.Mass-volume relationships of soils 2.Soil texture and methods to determine soil texture and effects of soil texture on agriculture 3.Plant roots and soil physical propertis 4.Soil aggregation and analysis of soil aggregate stability

	<p>5. Effects of soil structure on agriculture and environment</p> <p>6. Soil water content measurement methods</p> <p>7. Exam</p> <p>8. Time Domain Reflectometer and FDR sensors in soil science</p> <p>9. Soil water potential measurement methods</p> <p>10. Saturated and unsaturated soil hydraulic conductivity, permeability and infiltration.</p> <p>11. Soil aeration and its measurements.</p> <p>12. Heat conductivity in soils</p> <p>13. Ion movement and leaching equations in soils</p> <p>14. Final exam</p>
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Course Code	ULP-21-TO002
Name of the Course in English	Soil Quality
Name of the Course in Turkish	Toprak Kalitesi
Language of the Course	English
Level of the Course	Master
Lecturer	Assoc. Prof. Dr. Yasemin Kavdır
ECTS Credit	7.5
COMU Credit	3
Description	<p>1. Soil quality and its importance</p> <p>2. Physical quality parameters</p> <p>3. Physical quality parameters</p> <p>4. Chemical quality parameters</p> <p>5. Chemical quality parameters</p> <p>6. Chemical quality parameters</p> <p>7. Midterm exam</p> <p>8. Biological quality parameters</p> <p>9. Biological quality parameters</p> <p>10. Evaluation of results to make a soil quality index</p>

	11.Determination of soil quality parameters in the lab 12.Determination of soil quality parameters in the lab 13.Determination of soil quality parameters in field using scale 14.Final exam
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Course Code	ULP-21-TO003
Name of the Course in English	Use of Liquid and Solid Wastes As a Soil Conditioners
Name of the Course in Turkish	Sıvı ve Katı Atıkların Toprak Düzenleyicisi Olarak Kullanımı
Language of the Course	English
Level of the Course	Master
Lecturer	Assoc. Prof. Dr. Yasemin Kavdır
ECTS Credit	7.5
COMU Credit	4
Description	1. Classifications of wastes 2. Region specific wastes in Turkey 3. Investigations of olive oil, tea, beat, wine, tobacco, yeast factory wastes 4. Investigations of composition of waste waters 5. Effects of wastes on soil physical properties 6.Effects of wastes on soil chemical properties 7. Midterm 8.Preparation of compost 9.Properties of Olive waste 10. Effects of olive waste on soil properties 11. Effects of olive waste on plant growth 12. Experiment 13. Experiment

	14. Exam
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Course Code	ULP-06-TO004
Name of the Course in English	Soil Science
Name of the Course in Turkish	Toprak Bilgisi
Language of the Course	English
Level of the Course	Bachelor's
Lecturer	Assoc. Prof. Dr. Yasemin Kavdır
ECTS Credit	5
COMU Credit	3
Description	Soil around us Soil origin, classification, parent material formation Weathering Soil physical properties, texture Structure Soil water Soil air and temperature Soil acidity Soil organisms Soil organic matter Plant Nutritions Soil water loss Erosion Soil pollution

Course Code	ULP-06-TO005
Name of the Course in English	Soil Physics
Name of the Course in Turkish	Toprak Fiziki
Language of the Course	English

Level of the Course	Master / Doctorate
Lecturer	Assoc. Prof. Dr. Yasemin Kavdir
ECTS Credit	7,5
COMU Credit	3
Description	<p>Mass volume relationships in soil</p> <p>Soil bulk density, particle density, porosity, gravimetric and volumetric water content</p> <p>specific surface areas of colloids</p> <p>solid phase: soil texture, its effects on agriculture, methods of soil texture determination</p> <p>Soil structure, stability index, soil aggregate formation</p> <p>Soil water properties</p> <p>energy state of soil water</p> <p>water flow in soil (dacy's law and richards equation)</p> <p>aeration</p> <p>heat flow</p> <p>leaching of ions</p>