AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Soil Colloids								
Course Code	ZTO605		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	7	Workload	171 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Detailed information about soil colloids and their properties.								
Course Content	General knowledge about colloids, colloid types, inorganic soil colloids, clay colloids and their various properties, clay suspensions and colloidal systems, properties of clay-water system, organic soil colloids and properties, the interaction between organic and inorganic colloids								
Work Placement									
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Soil colloids and their associations in aggregates/ Marcel F. De Boodt, ed. Michael H. B. Hayes, ed. Adrien Herbillon. New York Plenum.1990.
2	Toprak Mekaniği ve Teknolojisi, Ankara Üni. Ziraat Fak. Yayınları:992 Ders Kitabı:260 Nuri MUNSUZ, 1985.

Week	Weekly Detailed Course Contents	
1	Theoretical	General information about the colloids
2	Theoretical	The classification of the colloids
3	Theoretical	The origin of the clay minerals and their formations
4	Theoretical	The structure of the clay minerals
5	Theoretical	The classification of the clay minerals
6	Theoretical	Clay mineral analyzes
7	Theoretical	The colloidal properties of the soil colloids and clay minerals
8	Intermediate Exam	Midterm exam
9	Theoretical	The determination of the clay minerals usage areas
10	Theoretical	The relationships between clay minerals, soil and water
11	Theoretical	Clay mineral-soil productivity relationships
12	Theoretical	The various properties of the organic soil colloids
13	Theoretical	The chemical composition of the organic colloids
14	Theoretical	The behavior of the organic colloids
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	1	0	14	14
Term Project	1	0	20	20
Reading	5	0	5	25
Midterm Examination	1	0	30	30
Final Examination	1	0	40	40
			Total Workload (Hours)	171
			[Total Workload (Hours) / 25*] = **ECTS**	7
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	The properties of colloids
2	The differentiation and classification of the colloidal types
3	The determination of the colloidal solutions
4	The determination of the relationships between soilproperties and soil colloids
5	The determination of the relationships between soil fertility and soil colloids

Programme Outcomes *(Soil Doctorate)*	
1	To be able to apply the theoretical information achieved during the graduate study
2	To be able to collect data by scientific means, to evaluate and interpret
3	To be able to update himself continuously
4	To be able to assess the convenient analytical methods during the process of the scientific study
5	To be able to put forth solutions to soil use and plant development

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

	L1	L2	L3	L4	L5
P1	2	4	4	4	5
P2	1	2	1	2	2
P3	1	1	1	1	1
P4	1	1	2	2	2
P5	2	4	5	5	5