AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Special Problems in Soil Physics and the Relation With Yield								
Course Code	ZTO613		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	7	Workload	172 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Detailed information about soil structure and yield relationships								
Course Content	Physical productivity, soil degradation, soil structure formation, definitions and measurement methods, the factors affecting the stability of the formation of soil aggregates, chemical soil stabilizers and their availability in soils, methods for determining the stability and the aggregate size distribution of aggregates in the laboratory, soil structure-efficiency relationships.								
Work Placement									
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Discussion, Individual Study, Problem Solving								
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.

Week	Weekly Detailed Course Contents	
1	Theoretical	Soil physical productivity
2	Theoretical	Physical productivity reduction (degradation) and the influencing factors
3	Theoretical	Physical productivity reduction (degradation) and the influencing factors
4	Theoretical	Soil structure formation and the stability
5	Theoretical	Methods for determination of aggregate stability
6	Theoretical	Methods for determination of aggregate stability
7	Theoretical	Chemical soil stabilizers and their availability in soils
8	Intermediate Exam	Midterm exam
9	Theoretical	Chemical soil stabilizers and their availability in soils
10	Theoretical	Methods for determining the aggregate size distribution
11	Theoretical	Methods for determining the aggregate size distribution
12	Theoretical	Soil structure and yield relationships
13	Theoretical	The structure and yield relationships
14	Theoretical	The structure and yield relationships
15	Theoretical	The structure and yield relationships
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	3	42
Assignment	2	0	15	30
Term Project	1	0	25	25
Midterm Examination	1	0	30	30
Final Examination	1	0	45	45
			Total Workload (Hours)	172
			[Total Workload (Hours) / 25*] = **ECTS**	7
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Physical productivity.
2	The ability to assess the physical efficiency of the soil properties.
3	The ability to analyse the soil aggregate sizes and the soil aggregate stability.
4	The ability of implementation of the measurement methods.
5	The ability to interpret the soil structure and yield relationships.

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	4	2	4	4	3
P2	2	4	4	5	4
P3	1	3	2	3	3
P4	4	5	5	5	5
P5	5	5	4	3	5