AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Applied Statistical Methods in Culturtechnique								
Course Code	ZTY607		Couse Level	Third Cycle (Doctorate Degree)					
ECTS Credit	6	Workload	150 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To teach the methods used in analysis, assessment and interpretation of data obtained in culturtechnical studies.								
Course Content	Basic statistical analysis of data, parameter estimation, simple linear regression, multiple linear regression, analysis and modelling of time series, spatial statistics, geostatistical methods, kriging techniques								
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	60

Recommended or Required Reading	
1	Helsel, D.R. and Hirsch, R.M. (2002) Statistical Methods in Water Resources. Elsevier Science Publishers, Amsterdam.
2	Draper, N.R. and Smith H. (1981) Applied Regression Analysis. John Wiley and Sons, USA.
3	Webster R. and Oliver M.A. (2007) Geostatistics for Environmental Scientists. John Wiley and Sons, England

Week	Weekly Detailed Course Contents	
1	Theoretical	Acquisition of data
2	Theoretical	Basic statistical analysis of data
3	Theoretical	Basic statistical analysis of data
4	Theoretical	Parameter estimation
5	Theoretical	Simple linear regression
6	Theoretical	Simple linear regression
7	Theoretical	Multiple linear regression
8	Intermediate Exam	Mid Term Exam
9	Theoretical	Multiple linear regression
10	Theoretical	Statistical analysis and modelling of time series
11	Theoretical	Spatial statistics
12	Theoretical	Geostatistical methods
13	Theoretical	Geostatistical methods
14	Theoretical	Kriging techniques
15	Theoretical	Monte Carlo simulation meeth ods
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Lecture - Practice	14	2	2	56
Midterm Examination	1	8	2	10
Final Examination	1	12	2	14
			Total Workload (Hours)	150
			[Total Workload (Hours) / 25*] = **ECTS**	6
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Being able to apply basic statistical analysis and to interpret the results
2	Being able to apply simple and multiple linear regression analysis and to interpret the results
3	Being able to apply geostatistical methods and to interpret the results
4	To be able apply the methods for analysis of water quality data
5	Being able to make trend analysis

Programme Outcomes *(Agricultural Structures and Irrigation Doctorate)*	
1	Ability to analyze, synthesize and evaluate different forms of scientific knowledge in the field of studies
2	Approach to information systematically, and gain skills related to their field the research methods
3	Innovative science to develop a scientific method or a method that is known to practice in their field
4	Ability to organize and manage the project and advanced scientific research
5	Advanced technologies, find solutions to engineering problems taking advantage of the software and model approaches
6	Creative, unbiased and critical thinking
7	A topic in the field of written, verbally and visually as the ability to express
8	Ability to publish in refereed journals National and international the results of studies

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	5	5	5	3	4
P2	5	4	4	4	4
P3	5	5	4	4	2
P4	5	5	5	4	4
P5	5	4	4	3	3
P6	5	5	5	4	4
P7	5	5	5	2	3
P8	5	5	5	3	3