AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
FIELD CROPS
FIELD CROPS
FIELD CROPS MASTER
COURSE INFORMATION FORM

Course Title	Measurement and Evaluation of Meteorological Data								
Course Code	ZTY517		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	8	Workload	200 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	The aim of this course is to teach the measurement of meteorological data and the assessment of measurement results.								
Course Content	Measurement of meteorological parameters with agricultural importance, principles of measurement apparatus, the techniques of filling the missing data, the interpretation of measurement data.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Case Study, 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	Özgürel M., Pamuk Mengü G. (2009) Agricultural Meteorology (Tarımsal Meteoroloji), Ege Üniversitesi Yayınları, Ziraat Fakültesi Yayın No: 567, İzmir.
2	Aküzüm ve ark. (1994)Meteorology I (Meteoroloji I), Ankara Üniversitesi Ziraat Fakültesi Yayınları Yayın No:1325, Ankara

Week	Weekly Detailed Course Contents	
1	Theoretical	Observation and measurement concepts, measurement principles of meteorological data
2	Theoretical	Principles of temperature measurement; apparatus used to measure air and soil temperature, their principles; calculations of averages
3	Theoretical	Principles of sunshine duration and solar radiation measurement, characteristics and usage of apparatus to measure, calculation of daily data
4	Theoretical	Principles of air humidity measurement, characteristics and usage of apparatus to measure, calculation of daily average
5	Theoretical	Principles of precipitation measurement, calculation of rainfall amount, rainfall intensity and shower rainfall; relationship between elevation and precipitation
6	Theoretical	Appartus used to measure precipitation and calculation of daily rainfall amount
7	Theoretical	The basic principle of air pressure and wind measurements, speed, direction and frequency necessary for determining the identification of issues and the daily value
8	Intermediate Exam	Mid Term Exam
9	Theoretical	Factors affecting evaporation; measurement of evaporation
10	Theoretical	Measurement of evaporation from open water bodies and earth surface; apparatus used to measure evaporation
11	Theoretical	The run of day concept and the methods used to calculate
12	Theoretical	Calculation of monthly, annual and long-term data
13	Theoretical	Methods used to estimate missing data (correlation, double-mass etc.)
14	Theoretical	Interpolation and interpolation methods
15	Theoretical	Isotherm and isobar maps
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	2	98
Lecture - Practice	14	4	2	84
Midterm Examination	1	6	2	8

Final Examination	1	8	2	10
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Being familiar with measurement apparatus
2	Being able to assess the measurement results
3	Being able to interpret the measurement results
4	Being able to fill the missing data
5	Being able to make homogeneity analysis

Programme Outcomes *(Field Crops Master)*	
1	To be able to improve and deepen the level of expertise in field crops on the basis of the departments licenses qualifications.
2	To be able to recognize the subjects related to field crops, to be able to solve these and make interpretation.
3	To be able to have the skills of acting independently, to have power to decide and to create.
4	To be able to work in teams between departments
5	To be able to give briefing about latest information of Field Crops in written, oral and visual ways.
6	To be able to take responsibility for developing the new approaches and to formulate a solution facing unforeseen complex situations of applications,
7	To be able to defend the original opinions in both Turkish and in foreign languages by using these languages and communicating effectively.
8	To be able to contribute to science by producing knowledge for the aim of improving quality, efficiency and sustainability
9	To be able to apply breeding methods in order to improve new varieties for Field Crops.
10	To be able to maintain and select the appropriate statistical methods within the framework of the study, evaluation of scientific ethics; to convert the results into a report/dissertation and to offer them by producing scientific publications.

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	3	2	2	3
P2	2	3	2	2	3
P3	2	3	2	2	3
P4	2	3	2	2	3
P5	2	3	3	2	3
P6	2	4	3	2	3
P7	2	4	3	2	3
P8	2	4	3	2	3
P9	3	2	3	2	3
P10	3	2	3	2	3