AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	New Technologies in Irrigation						
Course Code	ZTY535		Couse Level	Second Cycle (Master's Degree)			
ECTS Credit	8	Workload	200 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	Introduction of computer programs used in culturtechnique, teaching the use and intrepete the outputs of the software						
Course Content	Softwares on irigation scheduling and management, interpretation of results, general structure of WINDOWS based programming languages, database formation and management on solving the irrigation and drainage problems, preparation of algorithms, interpretation of the outputs						
Work Placement	N/A						
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	Kanber, R., Irrigation (Sulama). Ç. Ü. Ziraat Fak. Ders Kitabı No: 52, Adana 1997
2	Replole, J. A., Merrium, L.R., Swarner, L.R., Phelen, J.T., 1980. "Farm Water Delivery System, Design and Operation of Farm Irrigation Systems". Ed. M.E. Jensen. ASAE Monograph 3, St . Joseph, MI
3	Cuenca, R.H., 1989. "Irrigation System Design: an Engineering Approach". Prentice Hall, Englewood Cliffs, New Jersey

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition and scope of irrigation scheduling
2	Theoretical	Irrigation scheduling methods based on soil monitoring
3	Theoretical	Gravimetric method and thermal devices
4	Theoretical	Operation and principals of notronmeter
5	Theoretical	Operation and principals of poros blocks
6	Theoretical	Tensiometers and operation and using in irrigation
7	Theoretical	TDR method operation and using in irrigation
8	Intermediate Exam	Midterm Exam
9	Theoretical	Irrigation scheduling methods based on plant monitoring
10	Theoretical	Operation of infrared thermometers in irrigation scheduling
11	Theoretical	Pressure chamber and thermocupl psychrometers
12	Theoretical	Operation of porometer in irrigation scheduling
13	Theoretical	Irrigation scheduling methods based on evaporation from Class A Pan
14	Theoretical	General Review
15	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	The ability to use and interpret the software on irrigation management
2	The ability to use irrigation management software on field and basin scale
3	The ability to use and interpret the outputs of software on farm structures design
4	The ability to use and interpret the outputs of software on land consolidation
5	Following the most recent technological improvements in irrigation and applying into field applications

Programme Outcomes *(Agricultural Structures and Irrigation Master)*

1	Ability to use, evaluate and improve the knowledge gained from field of study at an expert level
2	Ability to reach necessary the knowledge
3	To able to conduct scientific studies (research) related to the field
4	Ability to consider academical and ethical values the studies
5	Ability to improve editing method and evaluate the results of researches
6	The studies, the ability to reach result and application, develop new approaches
7	A topic in the field of written, verbally and visually as the ability to express
8	Effective use of Turkish language and ability to communicate in a foreign language both written and verbal

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