



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Surface Irrigation Hydraulics							
Course Code		ZTY608		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	6	Workload	150 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Teaching surface irrigation hydraulics							
Course Content		Giving students; information about mathematical model of surface irrigation systems, amount of surface flows and flow lenght reletad to infiltration rate.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study, Project Based 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	Walker, W. R. and G. V. Skogerboe, 1987. "Surface Irrigation, Theory and Practice", Prentice-Hall, Inc. Englewood Cliffs, New Jersey, USA
2	Cuenca, R.H., 1989. "Irrigation System Design: an Engineering Approach". Prentice Hall, Englewood Cliffs, New Jersey

Week	Weekly Detailed Course Contents	
1	Theoretical	Basic definitions of surface irrigation systems
2	Theoretical	Concepts of surface irrigation
3	Theoretical	Independent variables in surface irrigation
4	Theoretical	Flow equations
5	Theoretical	Fundamentals of surface irrigation hydraulics
6	Theoretical	Fundamentals of surface irrigation models
7	Theoretical	Hydrodynamic models
8	Intermediate Exam	Midterm exam
9	Theoretical	Zero-inertia model
10	Theoretical	Kinematic wave model
11	Theoretical	Volume balance model
12	Theoretical	Using models in basin irrigation systems
13	Theoretical	Using models in border irrigation systems
14	Theoretical	Using models in furrow irrigation systems
15	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	Identifying the surface irrigation systems
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2	Understanding the evaluation of field systems
3	Determining the hydraulic characteristics of surface irrigation
4	Interpretation of results of hydraulic characteristics
5	Identifying the model for surface irrigation hydraulics

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

