



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Irrigation Water Measurement and Control Structures								
Course Code	ZTY534	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	7	Workload	175 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Objectives of the course are giving students; - information about structures used for ground and surface water resources, - information about design and operation of hydraulic structures used for water storage, delivery and distribution in agricultural irrigation.								
Course Content	Hydraulic design criteria and problems of reservoirs, spillways, outlet works, river training and regulation, transition structures, conduit systems, and hydraulic machinery. Applications to multiple purpose designs involving flood control, water supply, irrigation, recreation, drainage, and navigation. Coastal engineering, estuaries, and harbors.								
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	Hydraulics of Open Channel Flow Sergio Montes
2	USBR Water Measurement Manual

Week	Weekly Detailed Course Contents	
1	Theoretical	Canal kontrol structures and usage purposes
2	Theoretical	Weirs (sharp crested, long throated, sifon types)
3	Theoretical	Gates (slide gates, metal weir types, radial)
4	Theoretical	Spillways
5	Theoretical	Outlet works
6	Theoretical	Energy dissipation structures
7	Theoretical	Sifon and water measurement flumes
8	Intermediate Exam	Mid Term Exam
9	Theoretical	Parshall flume and its design
10	Theoretical	Small Dams and their usage purposes
11	Theoretical	Hydraulics of small dams
12	Theoretical	Computer models for water control and measurement structures
13	Theoretical	Operation and maintenance of water control and measurement structures
14	Theoretical	Measurement of seepage techniques from open channels
15	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	8	3	154
Midterm Examination	1	7	2	9
Final Examination	1	10	2	12
			Total Workload (Hours)	175
			[Total Workload (Hours) / 25*] = ECTS	7

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

1	Identifying small hydraulic structures used for water resources
2	Understanding the construction principles of small hydraulic structures
3	Determining construction works of irrigation systems
4	Interpretation of control results related to irrigation systems
5	Identifying the small hydraulic structures to construct irrigation systems

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
P1	5	5	5	5
P2	5	5	5	5
P3	5	5	5	5
P4	5	5	5	5
P5	4	4	4	4
P6	4	4	4	4
P7	4	4	4	4

