

COURSE IDENTIFICATION FORM

Course Code and Name: IM5033 ADVANCED
HYDROLOGY

Department of : CIVIL ENGINEERING / MASTER
PROGRAMME

Semester	Theoretic Hour	Practice Hour	Total Hour	Credits	ECTS	Education Language	Type: Compulsory Elective
Atumn/Spring	3	0	3	3	5	Turkish	Optional

Prerequisite (s)

Instructor

Asst. Prof. Dr.Hilal ARSLANOĞLU IŞIK

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Course Assistant

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Groups / Classes

Course Aim

Rainfall-Runoff relationship and development of hydrological analysis techniques

Course Goals

Application of hydraulic principles to precipitation and runoff problems / Application of mathematical, statistical and graphical techniques to hydrological elements / Frequency analysis / Statistical distributions, samples, hypotheses, correlation and regression analysis / Flood routing / Reservoir regulation

Course Learning Outs and Proficiencies

1. Knowledge and skills about the application of hydrological analysis and analysis techniques, flood routing and reservoir operation can be gained.
2. Students will be able to learn the rainfall-runoff relationship and hydrograph analysis methods.
3. Students will be able to learn about groundwater and the methods of obtaining water from underground using wells.

Course Basic and Auxiliary Contexts

1. Lecture notes,
2. Ray K. Linsley , Joseph B. Franzini , David L. Freyberg , George Tchobanoglous , 1992. Water Recources Engineering ,
3. V. T. Chow et al., 1988 Applied Hydrology ,

Methods of Give a Lecture

Face to Face

Assessment Criteria		If Available, to Sign (x)	General Average Percentage (%) Rate
	Midterm Exam	X	50
	1. Quiz		
	2. Quiz		
	3. Quiz		
	4. Quiz		
	Oral Examination		
	Practice Examination (Laboratory, Project etc.)		
	Final Exam	X	50
Semester Course Plan			
Week	Subjects		
1	Application of hydraulic principles to precipitation and runoff problems		
2	Application of hydraulic principles to precipitation and runoff problems		
3	Application of mathematics, statistics and graphical techniques to hydrological elements.		
4	Application of mathematics, statistics and graphical techniques to hydrological elements.		
5	Frequency analysis		
6	Frequency analysis		
7	Statistical distributions, samples, hypotheses		
8	Midterm Exam		
9	correlation and regression analysis		
10	correlation and regression analysis		
11	Flood diversion		
12	Flood diversion		
13	Reservoir regulation		
14	Reservoir regulation		