Republic of Iraq

Ministry of Higher Education and Scientific Research
Supervision and Scientific Evaluation Apparatus

College: Shatt Al-Arab University College

Department: Civil Engineering

Stage: 2nd stage

Lecturer name: M.Sc. Qasim Mohammed Khudair

Academic title: Ass. Lecturer

Course Weekly Outline

Name	M.Sc. Qasim Mohammed Khudair					
E-mail address	qasim.muhamad@sa-uc.edu.iq					
Course name	Fluid Mechanics-2					
General course objective	1- To develop problem solving skills and understanding of Fluid Mechanics in civil engineering. 2- This course deals with the basic concepts of Fluid Mechanics. 3- This is the basic subject for all electrical and electronic circuits. 4- To understand viscous fluid flow problems.					
Course description /special objectives	1- To understand general principles of fluid mechanics 2- To understand incompressible and compressible flow 3- To understand flow through pipes and open channel					
References	Fluid Mechanics, Streeter Fluid Mechanics, White, F.M., 2016					
External sources	Fluid Mechanics, Streeter Fluid Mechanics, White, F.M., 2016					
Course assessment	**Lab.**	**Quizzes**	**Assignments**	**Report**	**Mid-term exam**	**Final exam**
	10	**10**	**10**	**10**	**10**	**50**
General notes						

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Week No.	Theoretical	Experimental	Aims
1	Applications of Bernoulli's equation	Applications of Bernoulli's equation	This module covers a wide range of topics of fluid mechanics in order to offer basic knowledge and foundations applicable to various civil engineering problems. This module introduces fundamental of conservation (mass, momentum and energy) laws of fluid flow, potential (ideal) flow, inviscid compressible flow and viscous flow. This module is also complemented by lab classes and tutorials
2	Applications of Bernoulli's equation	Applications of Bernoulli's equation	
3	Applications of Bernoulli's equation	Applications of Bernoulli's equation	
4	Discharge measurements	Discharge measurements	
5	Discharge measurements	Discharge measurements	
6	Momentum equation	Momentum equation	
7	Laminar and turbulent flow	Laminar and turbulent flow	
8	Laminar and turbulent flow	Laminar and turbulent flow	
9	Flow through pipes, Major and minor head losses	Flow through pipes, Major and minor head losses	
10	Flow through pipes, Major and minor head losses	Flow through pipes, Major and minor head losses	
11	Flow through pipes, Major and minor head losses	Flow through pipes, Major and minor head losses	
12	Flow through pipes, Major and minor head losses	Flow through pipes, Major and minor head losses	
13	Open channel flow	Open channel flow	
14	Open channel flow	Open channel flow	
15	Open channel flow	Open channel flow	