



MUTAH UNIVERSITY
Faculty of Engineering
Department of Chemical Engineering



Fluid Mechanics Laboratory Syllabus

Course Code	Course Name	Credits	Contact Hours
0404345	Fluid Mechanics Laboratory	1	

INSTRUCTOR/COORDINATOR

Name	Eng.Bahia Maitah
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Website	

TEXTBOOK

Course Textbook:
Lab Manual

Other Supplemental Materials
None

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

This laboratory aims to introduce students to the properties of fluids under different practical conditions. The lab includes practical experiments on viscosity, flow regimes, flow metering, resistance to flow inside tubes (friction), flow of compressible fluids, and the study of some machines such as pumps and turbines.

B. Pre-requisites (P) or Co-requisites (C)

0404244

C. Course Type (Required or Elective)

Required (Compulsory department course)

SPECIFIC GOALS

A. Specific Outcomes of Instruction

By the end of this course, the student should be able

1. understanding how to operate educational equipment in addition to the corresponding instrumentations according to scientific and safety procedures. [SLO 3,5,6]
- 2- Understanding and verify experimentally some Fluid Mechanics principles. [SLO 3,5,6]
- 3- understanding chemical engineering calculations related to each experiment. [SLO 3,5,6]
- 4- understanding, Interpret and discuss the results and compare the experimental results with the corresponding ones that are reported in the literature. [SLO 3,5,6]
- 5- understanding and Performing uncertainty analysis and inspect the source of errors for each experiment. [SLO 3,5,6]
6. Understanding and develop an ability to manage and perform the successive steps involved in "typical" engineering tasks, specifically (data collection, data analysis, formal report writing) [SLO 3,5,6]
7. Develop some of the organizational and leadership skills necessary for a team leader by (Organizing and directing an experimental team, working as a member of an experimental team [SLO 3,5,6]
8. Demonstrate an ability to communicate technical information in a format appropriate for your intended audience by Writing a scientific report for each experiment. [SLO 3,5,6]

B. Student Outcomes Addressed by the Course

1	2	3	4	5	6	7				
		✓		✓	✓					

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Viscosity Experiment	1	3
Weirs Experiment	2	3
Venturi meter Experiment	3	3
Head losses Experiment	4	3
Orifices Experiment1	5	3
Orifices Experiment2	6	
Bernoulli's Experiment	7	3
Friction in Pipes Experiment	8	3
Impact of Jet Experiment	9	3
V-notch and rectangular	10	3

	10	3
Total	10	30

METHODS OF ASSESSMENT			
No.	Method of assessment	Week and Date	%
1	Reports		40
2	Midterm Exam	8th week	20
3	Final Exam	End of Semester	40
Total			100