

COURSE CODE	COURSE TITLE	L	T	P	C
1151AE321	FLUID MECHANICS LABORATORY	0	0	2	1

Course Category:

Programme core

a. Preamble:

The lab is designed to provide the student with a physical understanding of the fundamental principles and basic equations of fluid mechanics. This understanding is gained through the application of “text book” concepts and equations to real problems

b. Pre- Requisites

- Engineering Mathematics II

c. Link To Other Courses

- Nil

d. Course Educational Objectives

Students undergoing this course are expected:

- To manipulate the pressure gauges and pressure measurements in fluid systems.
- To calibrate the basic instruments in fluid mechanics.

e. Course outcomes:

On successful completion of this course students will be able to

CO Nos.	Course Outcomes	Level of learning domain (Based on revised Bloom’s)
CO1	Demonstrate the calibration of various fluid mechanics instruments.	K2,S3
CO2	Carry out an experiment to show the effect of Bernoulli’s principle using a Venturi tube.	K2,S3
CO3	Measure the pressure using Pitot static tube	K3,S3
CO4	Demonstrate practical understanding of friction losses in internal flows	K2,S3

(S1-Factual, S2-Conceptual, S3-Procedural, S4-Metacognitive)

f. CORRELATION OF COS WITH PROGRAMME OUTCOMES:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	H	H		H	L	H	H	H	L			
CO2	H	H		H	L	H	H	H	L			
CO3	H	H		H	L	H	H	H	L			
CO4	H	H		H	L	H	H	H	L			

H- High; M-Medium; L-Low

g. LIST OF EXPERIMENTS

1. Verification of Bernoulli's theorem
2. Pressure measurement with pitot static tube
3. Calibration of venturimeter
4. Calibration of Orifice meter
5. Determination of pipe flow major losses.
6. Determination of pipe flow minor losses.

Total Periods: 30