

1.	Title of the course	Applied Mechanics Laboratory
2.	Course number	ME208P
3.	Structure of credits (L-T-P-C)	0-0-2-1
4.	New course/modification to	New
5.	To be offered by	Mechanical Engineering
6.	Prerequisite	None
7.	<b>Course Objective(s):</b> To perform experiments related to fluid and thermal engineering, mechanics of solids, kinematics and dynamics of machines.	
8.	<b>Course Content:</b> Fluid property measurement and stability of floating bodies; Bernoulli's principle and impact of jet on surfaces; Flow measurement methods; Heat conduction; Photoelasticity demonstration and strain measurement using strain gauge; Tensile test in universal testing machine (UTM); Thin walled pressure vessels; Stresses and deflection of beams; Buckling of columns; Balancing of a multi-cylinder engine; Measurement of mass moment of inertia; Dynamics of gear train; Measurement of friction.	
9.	<b>Textbook(s):</b> 1. Fox R W, Philip J P and McDonald A T, Introduction to Fluid Mechanics, 9th Edition, Wiley (2015). 2. Beer F P and Johnston E R, Vector Mechanics for Engineers - Volume I - Statics, Volume II - Dynamics, McGraw Hill (2016).	
10.	<b>Reference(s):</b> 1. Hibbeler R C, Mechanics of Materials, 10th Edition, Pearson, (2016). 2. Crandall S H, Dahl N C and Lardner T J, An Introduction to the Mechanics of Solids, 3rd Edition, McGraw-Hill (2012). 3. Shames I H and Rao G K M, Engineering Mechanics, 4th Edition, Pearson Education (2005). 4. Cengel Y A and Boles M A, Thermodynamics: An Engineering Approach, 9th Edition, McGraw Hill (2019).	