

1151AU319

CAD & APPLIED FEA LAB

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1. Preamble

To introduce the basic design & drafting concepts of automobile components and their simulation and modeling using ANSYS

2. Pre-requisite

1150ME202	Engineering Graphics
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3. Links to other courses

- Engine design and development
- Vehicle Design and Data Characteristics

4. Course Educational Objectives

Students undergoing this course are expected to

- To develop the Practical knowledge in designing of automobile components.
- To impart the fundamental knowledge in designing, drafting and simulation.

5. Course Outcomes

Upon the successful completion of the course, learners will be able to

CO Nos.	Course Outcomes	Level of learning domain (Based on revised Bloom's)
C01	Understand the complete methodology of design & drafting.	S2
C02	Develop skills in modeling and simulation of the automobile engine components using ANSYS.	S4

6. Correlation of COs with Programme Outcomes :

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	L	L	H	H	L	H				L			H	H
CO2	L	L	H	H	L	H				L			H	H

H- Strong; M-Medium; L-Low

7. Course Content**List of Experiments**

Design and Analysis of the Following Automobile Components:

1. Piston.
2. Universal Coupling
3. Cylinder Block
4. Connecting Rod
5. Crankshaft.
6. Inlet and Exhaust Valves.

TOTAL = 30 periods