

COURSE TITLE : AUTOMOBILE ENGINEERING DRAWING
COURSE CODE : 4055
COURSE CATEGORY : B
PERIODS/WEEK : 4
PERIODS/SEMESTER : 56
CREDITS : 3

TIME SCHEDULE

Module	Topic	Periods
1	Layout of automobile workshop and service station	12
2	Drawing of engine components	15
3	Automobile electrical circuits	12
4	Assembly drawing of engine components	17
TOTAL		56

GENERAL COURSE OUTCOME

Module	G.O	Student will be able to
1	1	Understand different layout of Automobile Services Stations.
	2	Understand the layout of fuel filling cum service station, and modern paint booth.
	3	Identify chassis specifications and drawing of CMV, HGV, HPV.
2	1	Understand the detailed drawings of engine components like piston, connectivity nod, crank shaft, cam shape and different valve mechanisms.
	2	Draw various electrical symbols in Auto mobile wiring.
	3	Draw wiring diagram of passenger cars, Heavy and medium vehicles and two wheelers.
	4	Understand the assembling and detailed drawing of single cylinder engine, fuel injector, spark play etc.

SPECIFIC COURSE OUTCOME

MODULE I

1.1.0 Draw the Layout of automobile workshops and service stations

MODULE II

2.1.0 Draw different Engine Components

MODULE III

3.1.0 Identify various electrical symbols in vehicle wiring diagram

3.1.1 Draw complete wiring diagram of passenger car, medium vehicle ,heavy vehicle and two Wheelers

MODULE IV

4.1.0 Draw the Assembly drawing of various Engine components

CONTENT DETAILS

MODULE I

1. Layout of Fuel filling cum service station
2. Layout of fully equipped modern garage
3. Layout of inspection pit and service ramp
4. Layout of modern paint booth
5. Layout of road ways workshop
6. Layout of seating arrangement in buses
7. Chassis specifications and drawings of LMV, HGV & HPV

MODULE II

Draw the dimensioned sketches of the following automobile engine components

1. 2-Stroke and 4-stroke petrol engine pistons
2. Diesel engine pistons
3. 4-cylinder and 6-cylinder engine crank shaft
4. 4-cylinder and 6-cylinder engine cam shaft

MODULE III

1. Electrical symbols-
2. Complete wiring diagram of passenger car, medium vehicle, heavy vehicle and two wheelers

MODULE IV

Assembly drawing of,

1. Connecting rod
2. Assembly of single cylinder engine
3. Overhead & side valve mechanism with all parts (with side cam shaft and overhead cam shaft)
4. Spark plug & fuel injector

REFERENCES

1. N.D.Bhatt - Machine Drawing – Charotar publishing house pvt. ltd
2. P.I.Varghese - Machine Drawing - VIP Publishers
3. R.B.Gupta - Automobile Engineering Drawing – Satyaprakasan pub
4. Automobile body building - T.T.T.I – Chennai
5. Anil Chikkara - Automobile Engg., Vol. 3 -Satyaprakasan pub