

COURSE TITLE : **VEHICLE BODY REPAIRING**
COURSE CODE : **6055**
COURSE CATEGORY : **E**
PERIODS/WEEK : **5**
PERIODS/SEMESTER : **75**
CREDITS : **5**

TIME SCHEDULE

Module	Topic	Periods
1	Body members of the automotive vehicle	18
2	Different types of coach work	18
3	Different types of Body repair works and its tools	18
4	Automotive painting	21
TOTAL		75

GENERAL COURSE OUTCOME

Sl. No.	Sub	Students Will be able to
	1	Understand the various body members of the automotive vehicle
	2	Understand the different types of coach work
	3	Understand the different types of repairs and specific tools used for the repair work
	4	Understand the characteristics of automotive painting
	5	Describe the operation of spray gun
	6	Identify the equipments in a paint booth

SPECIFIC COURSE OUTCOME

MODULE I

1.1.0 Understand the various body members of the automotive vehicle

- 1.1.1 List the types of body
- 1.1.2 List major body sections
- 1.1.3 Explain construction details of a body component
- 1.1.4 Classify different body structures

MODULE II

2.1.0 Understand the different types of coach work

- 2.1.1 State the objectives of coach work
- 2.1.2 List the vehicle body materials
- 2.1.3 Describe the properties of vehicle body materials
- 2.1.4 Explain the different process is involved in coach work
- 2.1.5 Describe the layout of different class of vehicle

MODULE III

3.1.0 Understand the different types of repairs and specific tools used for the repair work

- 3.1.1 List the different types of body repairs
- 3.1.2 List the main safety precautions in a body repair workshop
- 3.1.3 Explain the maintenance procedure of vehicle body
- 3.1.4 Describe frame realignment procedure

MODULE IV

4.1.0 Understand the characteristics of automotive painting

- 4.1.1 Explain the different painting processes
- 4.1.2 Identify the components of spray painting equipments, painting booth
- 4.1.3 Describe different refinishing process
- 4.1.4 Explain body safety procedures

CONTENT DETAILS

MODULE I

Introduction – Car body construction details, major body sections of a passenger car- front section, centre section , rear section . Construction types – conventional body over frame, unitised frame and body construction .Fibre reinforced and metal reinforced body structures.

MODULE II

Classification of coach work , coach and bus body styles, typical layout of bus and coach body, typical layout of commercial vehicles, vehicle body materials- steel, light alloys, plastics, textiles, glass, wood, aluminium materials, adhesives and their properties. Corrosion and their prevention.

MODULE III

Hand tool study, power tool and equipment, workshop safety, minor repairs- repairing plastics, hood, bumper, fender, lid, and trim service, door , roof , glass service, passenger compartment service. Major body repair- frame repair, frame/body damage measurement, frame re-alignment procedure.

MODULE IV

Paint materials, paint characteristics, refinishing process -paint removal, preparing bare metal, prime coat selection, final sanding, masking, surface cleaning. Spray guns, equipment and material preparation, spray gun setup, spray paint booth.

TEXT BOOK

James E Duffy - Body repair technology for 4-wheelers - Cengage Learning Delhi

REFERENCES

1. Janusz Pawlowski - Vehicle body engineering - Business Books
2. Paul Browne - Auto care manual – Bloomsbury Publishing Plc.
3. S F Page - Body engineering - Chapman and Hall, Limited, London, England
4. John Fenton - vehicle body lay out – Mechanical Engineering Publications
5. Andrew Livesey and A Robinson - The Repair of vehicle bodies - Routledge