

RGPV (DIPLOMA WING) BHOPAL		OBE CURRICULUM FOR THE COURSE		FORMAT- 3	Sheet No. 1/3
Branch	PLASTIC TECHNOLOGY			Semester	III
Course Code	Course Name			PLASTIC MATERIALS	
Course Outcome 1	To familiarize with structure of polymers.			Teach Hrs	Marks
Learning Outcome 1	To introduce the basic knowledge of plastic material.				
Contents	Historical development of plastic Introduction of Polymer Synthesis Polymers..				
Method of Assessment					
Learning Outcome 2	To recognize differences between plastics.				
Contents	Classification of plastic material.				
Learning Outcome 3	To differentiate between thermoplastic & thermoset material.				
Method of Assessment					
Course Outcome 2	To apply the knowledge for synthesis of thermoplastic materials & investigate their properties to obtain desired application.				
Learning Outcome 1	To differentiate various olefins material.				
Contents	Structure, Synthesis, properties & application of the following thermoplastic material				
Method of Assessment					
Learning Outcome 2	To classify thermoplastics materials.				
Contents	Structure, properties & applications of the following thermoplastic material. Vinyls :- Polyvinyl chloride (PVC), Polyvinyl acetate (PVA), Polyvinyl alcohol (PVA). Styrenics :- Polystyrene(PS), Styrene Acrylonitrile (SAN), Acrylonitrile butadiene styrene (ABS). Acrylics :- Polymethyl methacrylate (PMMA), Polyacrylonitrile (PAN) Cellulosics :- Cellulose nitrate(CN), Cellulose acetate (CA)				
Method of Assessment					
Course Outcome 3	To understand structure – property relationship of various engineering thermoplastics				
Learning Outcome 1	To classify Polyamide materials.				
Contents	Structure, properties, synthesis & application of Polyamide material such as Nylon -6, Nylon 6-6, Nylon 6-12.				
Method of Assessment					

Learning Outcome 2	To describe Structure, Synthesis, properties & application of engineering thermoplastics		
Contents	Structure, Synthesis, properties & applications of the following engineering thermoplastic material – Polytetrafluoroethylene (PTFE) Polyethylene Terephthalate (PBT) Polycarbonate (PC) Polyacetal (POM) Polyphenylene Oxide (PPO)		
Method of Assessment			
Course Outcome 4	To apply the knowledge for synthesis of thermosetting material & investigate their properties to obtain desired application.		
Learning Outcome 1	To Co-relate Structure & Properties of thermo-set material.		
Contents	Structure, Synthesis, Properties & applications of the following thermoset material :- Phenol Formaldehyde (PF) Melamine Formaldehyde (MF) Urea Formaldehyde (UF) .		
Method of Assessment			
Learning Outcome 2	To learn about the structure, synthesis, properties & applications of thermoset material. .		
Contents	Structure, Synthesis, Properties & applications of the following thermoset material :- Epoxy Unsaturated Polyesters. Polyurathanes.		
Method of Assessment			
Course Outcome 5	To learn about the properties of Natural & synthetic rubbers & the concept of vulcanization .		
Learning Outcome 1	To introduce the basic knowledge of natural rubbers & vulcanization.		
Contents	Natural Rubber Synthesis, Properties, Structure & Application, Vulcanization of Elastomer.		
Method of Assessment			
Learning Outcome 2	To describe structure, synthesis, properties & application of Elastomers.		
Contents	Structure, Synthesis, Properties & application of the following elastomer material :- Chloroprene Rubber. Polybutadiene Rubber. Nitrile Rubber.		

	Styrene Butadiene Rubber (SBR) Silicone Rubber. Polyisoprene Rubber.
Method of Assessment	