

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 4

Textile Production

Subject Code 142801

Subject Name Manufacturing & Application of Polymeric Materials

Sr.No	Course contents
1.	Manufacturing processes/techniques of following polymeric materials and their applications in textile industries.
2.	Polyethylene as textile softeners, coating and bonding material etc.
3.	Polyethylene Glycols such as PEG 200,400,600 etc and other polyols.
4.	Polyethoxylates and Polypropylene oxide condensates such as Nonyl Phenol Ethoxylates, Castor Oil Ethoxylates, oleic acid ethoxylates etc and Polypropylene oxides and their copolymers.
5.	Polyacrylates such as Poly(Ethyl and Butyl) acrylates, Polyacrylic acids and their salts, polyacryl amides, Polymethyl methacrylate etc and their copolymers as Printing Binders, Blanket adhesives, Synthetic thickeners, Stiffening agents, Sizing agents, Soil release agents, flocculating agents, super absorbent materials etc.
6.	Vinyl polymers such as polyvinyl alcohol, polyvinyl acetate, polyvinyl chloride etc as stiffening agent, photochemicals, sizing adhesives, coating, lamination and bonding agents.
7.	Silicones such as dimethyl and methyl hydrogen siloxanes, amino silicones, carboxy silicones, epoxy silicones, hydroxyl silicones etc as softeners, water repellants, antifoaming agents etc.
8.	Aminoplasts such as UF, DMEU, DMDHEU, MF, PF etc as anticrease finishing agents, Fixers, adhesives etc.
9.	Polysaccharides and their derivatives as printing thickeners, scouring aids, finishing agents etc.
10.	Miscellaneous polymers such as polyurethanes, polycarbonates, polystyrenes, polyesters etc.
11.	Recent developments in polymeric materials and their application techniques in textile processing