

	session	CLASS
sep-19	1	Introduction: Polymer Science and Technology. Basic definitions and Nomenclature. Molecular weight and degree of polymerization. Polymer Classification.
	2	Polymer Synthesis: Polymerization by addition and Condensation. Copolymerization
	3	Polymerization Methods. Introduction. Bulk polymerization, Solution polymerization, Suspension polymerization and Emulsion polymerization.
	4	Molecular Weights. Average molecular weight Definitions. Techniques for measuring molecular weight
oct-19	5	Structure and conformation of the polymer chain. Configuration of the polymer chain. Tacticity. Polymers in solution: Flory-Huggins theory
	6	Solid state: Amorphous polymers. Glass transition temperature. Experimental techniques Factors that affect its value.
	7	Crystalline solid state I. General considerations. Crystal morphology. Characterization techniques
	8	Crystalline solid state II. Crystallization from the melt. Fusion. Examples of crystalline polymers
	9	Polymer Blend: Introduction. Polymer Blend Thermodynamics I
	10	Polymer Blend: Polymer Blend Thermodynamics II
	11	Polymer Blend: Compatibilization, Interface, Morphology
	12	Elastomeric state. Rubber theory
		EXAMS WEEK
nov-19	13	Viscoelasticity Definition. Rheological models
	14	Mechanical behavior. Tensile, flexion, compression and impact tests
	15	Thermosettable Polymers: Synthesis of crosslinked polymers. Network formation, gelation and vitrification. Transition Temperature and Transformation Diagrams
	16	Modified thermosets. Preparation and morphology. Tenacity Modifiers
	17	Modified thermosets. Modifiers for toughening
	18	Polymer Technology I
	19	Polymer Technology II
	20	Mechanical Properties: LAB SESSION
dic-19	21	Mechanical Properties: LAB SESSION
	22	High performance polymers. Applications
	23	Conductive polymers and polyelectrolytes
	24	Biopolymers
	25	Polymer Blends: LAB SESSION
	26	Polymer Blends: LAB SESSION
jan-20		EXAM