Course Specifications

General Information

Course name	Polymer Chemistry
Course number	CHEM4311
Faculty	
Department	
Course type	Major Needs
Course level	4
Credit hours (theoretical)	0
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Polymer chemistry may be one of the most relevant of the sub-disciplines of chemistry for the modern citizen. Very few consumer goods are made without a significant contribution from the spectacular applications of polymers. Modern materials depend on large variety of properties available from polymers. Not only is polymer chemistry eminently practical, it is also fascinating from an academic viewpoint

Intended Learning Outcomes

Knowledge and Understanding

* Students will have a broad knowledge of the principles and concepts of contemporary polymer chemistry
* Students can discuss and define the basic concepts of polymer synthesis
* Students can elucidate the basic reactions in polymer chemistry
* Students can describe the physical properties of different polymers
* Students can describe the different experimental techniques used in the characterization of polymer solutions

Course Contents

1 - the course encompasses the basic concepts of polymer science, natural and synthetic polymers. types of polymerization, blends, copolymerization, polymer solutions, and analysis and characterization of polymers. This course emphasizes on chemistry of synthetic polymers such as fibers, plastics, resins, rubbers, adhesives and latex and study of their physical, chemical and typical applications

Teaching and Learning Methods

1 - The course of (36 hours) lectures and at the end of the semester (6 hours) seminas related to the topics of the course

Students Assessment

Assessment Method	TIME	MARKS
First Mid-Term	According to the academic calendar of the university	20/50
Second Mid-Term	According to the academic calendar of the university	20/50
Attendance and student activity	During the semester	10/50
Final Exam.	According to the academic calendar of the university	50/50

Books and References

Essential books	polymer science V.R.Gowariker
Recommended books	Polymer Science and technology 2nd ed Prentice-Hall 2003