

Department of Chemical Engineering

Course Syllabus

Course Code & Number	CHE 463																										
Course Title	Polymer Technology																										
Credit & Contact Hours	3 Credits; 3 Lectures, 0 Laboratories (3-0-3)																										
Instructor	Dr. Mohammad Anwar Parvez																										
Office Location	Room# 2303																										
Instructor's Office Phone	00966 13 720 5175																										
Instructor's Email	maparvez@uhb.edu.sa	Homepage link	https://www.uhb.edu.sa/Pages/MemberDetails.aspx?Param=college&Ref=29&Member=440																								
Prerequisites	CHEM 312																										
Course Description	Structure and physical properties of polymers. Homogeneous and heterogeneous polymerization processes. The chemical, mechanical, and engineering properties of polymers as well as polymer processing and rheology are emphasized in this course.																										
Course Objectives	<ul style="list-style-type: none"> i. To introduce polymer and structure properties relationships ii. To introduce polymerization techniques iii. To introduce processing and rheology 																										
Required Textbook	<p>Textbook: Ferdinand Rodriguez, Claude Cohen, Christopher K. Ober, Lynden A. Archer, Principles of Polymer Systems, 6th edition, CRC Press, 2014. ISBN13: 978-1-4822-2379-8</p> <p>Reference book: J. Fried, "Polymer Science & Engineering" J. Fried, Prentice Hall, 1995, ISBN: 013685561.</p>																										
Grading Scheme	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Assessments</th> <th>Assessments Task</th> <th>Week due</th> <th>Proportion of Final Mark (%)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Quizzes</td> <td>fortnightly</td> <td>10</td> </tr> <tr> <td>2</td> <td>Home-works</td> <td>fortnightly</td> <td>10</td> </tr> <tr> <td>3</td> <td>Midterm exam</td> <td>5</td> <td>30</td> </tr> <tr> <td>4</td> <td>Term Project</td> <td>12</td> <td>10</td> </tr> <tr> <td>5</td> <td>Final exam</td> <td>16</td> <td>40</td> </tr> </tbody> </table>			Assessments	Assessments Task	Week due	Proportion of Final Mark (%)	1	Quizzes	fortnightly	10	2	Home-works	fortnightly	10	3	Midterm exam	5	30	4	Term Project	12	10	5	Final exam	16	40
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<p>Course Learning Outcomes & Mapped So's</p>	<ul style="list-style-type: none"> ➤ To demonstrate an understanding of polymer and their properties. (ABET SO 1) ➤ To demonstrate an ability to distinguish different polymerization reactions and their mechanisms. (ABET SO 3) ➤ To describe the polymer processing and rheology to relate chemical, physical and mechanical properties. (ABET SO 7) ➤ To function professionally and behave ethically(SO 4) 																												
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