

Polymer Chemistry

Chemical and Biological Engineering 458.312
1st semester, 2014

Classroom/Hour: Room 302-719 on Tuesdays and Thursdays 11a00 – 12a15

Instructor: Jae Young Jho, Rm. 302-727, x8346, jjho@snu.ac.kr

Office hours: Mondays and Wednesdays pm's and eves

Teaching assistants at Rm. 302-715, x7078

Website: SNU eTL (etl.snu.ac.kr)

Course Description: Studying basic concepts of polymer science, various methods for polymer synthesis, and techniques for molar mass determination of polymers

Textbook: Young and Lovell, Introduction to Polymers, 3rd Edn, CRC, 2011

References (Reserved in the library):

Odian, Principles of Polymerization, 4th Ed, Wiley, 2004

Allcock, Lampe, and Mark, Contemporary Polymer Chemistry, 3rd Ed, Prentice Hall, 2003

Grading: total of 360 points

Three Exams 3 x 100 points = 300 points

Homework 3 HWs before each exam (due on the exam day) x 20 points = 60 points

Attendance Minus (-) 5 points/absence, randomly checked

Grade 'F' will be given to students who miss 2 or more exams or a quarter of class hours.

Schedule

<u>Wk</u>	<u>Date</u>	<u>Topic</u>	<u>Chapter</u>	<u>Remarks</u>
1	Mar 4, 6	Basic concepts	1, 2	
2	Mar 11, 13	Step polymerization	3	
3	Mar 18, 20	Step polymerization		
4	Mar 25, 27	Radical polymerization	4	
5	Apr 1, 3	Radical polymerization		
6	Apr 8	Radical polymerization		No class 4/10
7	<i>Sat, Apr 12</i>	<i>1st Exam</i>	<i>1-4</i>	<i>HW#1 Due</i>
	Apr 15, 17	Radical polymerization		
8	Apr 22, 24	Ionic polymerization	5	
9	Apr 29	Coordination polymerization	6	No class 5/1
10	May 8	Ring-opening polymerization	7	No class 5/6
11	<i>Sat, May 10</i>	<i>2nd Exam</i>	8	
	May 13, 15	Specialized methods	5-7	<i>HW#2 Due</i>
12	May 20, 22	Copolymerization	9	
13	May 27, 29	Copolymerization		
14	June 3, 5	Molar mass determination	10-15	
15	June 10	Molar mass determination		
	<i>Thu, June 12</i>	<i>3rd Exam</i>	<i>8-15</i>	<i>HW#3 Due</i>