Spring 2022

CHE 444-HM2: Introduction to Polymer Engineering

Kathleen McEnnis

ChE 444 Introduction to Polymer Engineering
Spring 2022 Syllabus

Instructor: Dr. Kathleen McEnnis
PhD, Assistant Professor in CME Department
She/Her/Hers pronouns
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Office: 382 Tiernan Hall
Webex Room: https://njit.webex.com/meet/mcennisnjit.edu
Office Hours: Mondays 11am-12pm (in person or virtual) & Thursday 1-2pm (virtual). Schedule an appointment through email. Please email me for other times

Required Textbook: Introduction to Polymers - 3rd Edition By Robert J. Young, Peter A. Lovell (ISBN 9780849339295)

Class: Monday 1:00 PM-2:20 PM Room FMH 409 (Face-to-Face)
Wednesday 1:00 PM-2:20 PM Room FMH 409 (Face-to-Face)
*Class will be virtual Wednesday Jan 19th, Monday Jan 24th, and Wednesday 26th. We will resume face-to-face on Monday Jan 31st unless communicated otherwise.

Course: Introduction to the basic concepts of polymer engineering. Topics covered include rheology, heat transfer, and kinetics of polymerization reactors.

Prerequisites: CHE 370

Withdraw Deadline: April 4, 2022

Course Administration: Administration of this course will be done through Canvas.

Assignments: Homework assignments will be posted on Canvas. In class practice problems will also occasionally be assigned and will contribute to the assignment grade. Homework assignments (and practice problems) are graded and will be 15% of the overall grade and the lowest grade will be dropped. While the in-class practice problems can be worked on with other students, the homework assignments must be completed independently.

Quizzes: Quizzes will be given in class. Quizzes are closed book & notes, though an equation sheet will be provided when needed. Quizzes are 15% of the total grade and the lowest quiz grade will be dropped.

Project: Students will be required to develop a project on a polymer topic. You will research your topic and present to your classmates towards the end of the semester. The project will be 35% of the total grade.

Exams: There will be two exams worth a total of 35% of the total grade. All exams and finals will be closed book & notes, though an equation sheet will be provided.

GRADING

Assignments	15%
Quizzes	15%
Exams	35%
Project	35%
	100%

Grades will be based on:

A: 90 – 100%
B+: 85 – 89%
B: 80 – 84%
C+: 70 – 79%
C: 60 – 69%
D: 50 – 59%
F: 0 – 49%

Makeup Policy: No makeup exams, finals, quizzes, or presentations will be granted unless the Dean of Students contacts me about your reason for missing and the reason is deemed suitable.

Late Work Policy: Assignments will not be accepted late unless there is an extenuating circumstance documented through the Dean of Student's office.

Electronic Device Policy: With the exception of calculators, the use of electronic devices during exams, finals, or quizzes is prohibited. The use of an electronic device during class time is allowed and you are encouraged to bring a personal electronic device to class to participate in PollEverywhere questions and access any online class materials. Please be aware, however, that though these devices can aid in your learning experience, they can also be a source of distraction for both you and your peers. Use your electronic devices responsibly so as not to distract yourself or others from the class.

Academic Integrity Policy: Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at:

http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. **Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.** If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Use of "homework help" sites such as Chegg.com to complete class work is prohibited. Any student found to have used one of these sites on an assignment will be reported to the Dean of Students Office for a potential academic integrity violation.

Course Objectives: Students will be able to:

1. Describe the chemical and physical properties of polymers
2. Draw relationships between polymer structure and polymer properties
3. Identify and describe different synthetic strategies for polymers
4. Describe polymer processing techniques and identify the advantages and limitations
5. Identify environmental and societal issues with polymers
6. Independently research a polymer topic using online resources (including internet and NJIT library resources) and effectively communicate technical content to a lay audience.

Important Dates (may be subject to change)**:**
Exam 1 Monday, February 21
Exam 2 Wednesday, March 30
Student Presentations Apr 20, 25, & 27
Honors Presentations (for those in the honors section) Monday May 2

Disability Support Services
If you need accommodations due to a disability please contact Chantonette Lyles, Associate Director of Disability Support Services, Fenster Hall Room 260 to discuss your specific needs. A Letter of Accommodation Eligibility from the Disability Support Services office authorizing your accommodations will be required.

Virtual Contingency Plan
This course will be meeting Face-to-Face this semester, however, if circumstances change and we are required to change to a virtual format, then classes will be delivered over Webex (using this link: https://njit.webex.com/njit/j.php?MTID=m865d3a56c6089d7038cc2a9195958206) while exams and quizzes will be given online through the Canvas Quiz Tool and proctored through Respondus Lockdown & Monitor on a computer and Webex on a mobile device.