Course Syllabus

Jump to Today

Lectures: MWF 8:10-9:00 120 Latimer

Discussion sessions:

DIS 101 M 9:00A-9:59A | 3 Evans

DIS 102 Tu 1:00P-1:59P | 155 Barrows

DIS 105 Th 1:00P-1:59P | 175 Barrows

DIS 106 F 9:00A-9:59A | 385 LeConte

Class Instructor: D.B. Graves 101D/306 Gilman **graves@berkeley.edu (mailto:graves@berkeley.edu)**

Office hours: Mon 2-3 p; Tues 2-3 p (tentative)

GSIs: Zach Hoffman <zach.hoffman@berkeley.edu>

Natalie Lefton <natalie.lefton@berkeley.edu>

Office hours:

Monday 10am-11am, Tan 395

Tuesday 11am-12pm, Tan 395

Wednesday 1pm-2pm, Tan 395

Thursday 3pm-4pm, Tan 395

Texts Required

Felder and Rousseau, *Elementary Principles of Chemical Processes,* John Wiley and Sons, 3rd edition, 2005.

Recommended (2 hr reserve, Chem/Eng Libraries)

1. Murphy*, Introduction to Chemical Processes,* McGraw Hill, 2007, Chem. Lib. Call #: TP155.7.M87 2007

2. Himmelblau and Riggs, *Basic Principles and Calculations in Chemical Engineering*, Prentice Hall, 8th edition, Chem. Lib. Call #: TP151.H56 2012

3. Duncan and Reimer, *Chemical Engineering Design and Analysis: An Introduction*, Cambridge University Press, 1998. Chem. Lib. Call #: TP155.D74 1998.

4. Shreve, *The Chemical Process Industrie*s, McGraw Hill, Kresge Eng. Lib. Call #: TP145.S5 1956.

Description

The purpose of CBE 140: *Chemical Process Analysis* is to teach the fundamentals of chemical processes based on the principles of stoichiometry, material and energy balances. Most of the context of the course is based on the chemical and related fluid processing industries, with emphasis on standard unit operations and chemical reactors.

Three weekly lectures will be used to describe the underlying principles of the course. Weekly discussion sections will consist of problem-solving sessions, directed study, and group design work. This course will stress both theory and practical calculations: weekly homework and design projects emphasize the latter, quizzes and exams the former. All officers of the class will be available weekly during office hours. Attendance in lecture is mandatory. Latecomers are not welcome. There will be no eating or drinking during lectures.

Grading:	Homework	10%
	Design report	10%
	Midterm exams (2)	25% each (9/27; 11/8)
	Final exam	30% (Monday, 12/16 7-10 pm)

Homework: Homework will generally be assigned on Monday of each week and due by beginning of class Wednesday the following week. Graded homework will be returned during discussion sections. No late homework accepted. Assignments, solutions, and handouts will be posted at the class website.

Design Report: Details will be announced later in the semester, but there will be a multi-week, team-based project towards the end of the semester involving designing a chemical process using the principles developed in the course.

Examinations: No regrades of exams will be allowed. Electronic devices with internet access cannot be used during exams.

Note on academic dishonesty

It is considered academically dishonest to turn in work to be graded (homework, project, quiz, exam) that is not your own work, unless the assignment explicitly states otherwise. You may work with others in preparing homework and studying for exams, but the work you turn in must be the product of your own thinking. Academic dishonesty can result in no credit for an assignment or the course. It can also result in referral to UC Berkeley authorities for additional sanctions