

Material and Energy Balances

CHE 2800 - Winter 2003

Department of Chemical Engineering and Materials Science
Wayne State University

Lecture: 8:30-10:20 am, M W, Room 0028 Mano
8:30-9:25 am, F Room 0028 Mano

Instructor: Jeffrey Potoff, PhD, Assistant Professor
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Office Hours: 2:00-3:00 pm, W, or by appointment

Textbook: Felder, R. M., and Rousseau, R. W., "Elementary Principles of Chemical Processes," 3rd ed., John Wiley and Sons (1999).

Objectives: The major objective of this course is to teach students basic problem solving skills required for future studies in chemical engineering.

Topics include: An introduction to units, curve fitting, material balances for (a) non-reactive and (b) reactive processes, energy balances for (a) non-reactive and (b) reactive processes, reaction stoichiometry, combined energy and material balances, phase equilibria, and psychrometric charts

Grading:	Homework	10%
	Class participation and quizzes	5%
	Exam #1 (mass balances, chemical reactions)	15%
	Exam #2 (multiple reactions, phase equilibria)	20%
	Exam #3 (energy balances, psychrometric charts)	20%
	Final Exam (comprehensive)	30%

Scale: A: 100-85%, B: 84-70%, C: 69-55%, D: 54-35%

Exams are *tentatively* scheduled for **February 10**, **March 10**, and **April 18**.

Final Exam: 8:00-10:30 am, Monday, April 28, 2003

Homework: Homework will be assigned on Mondays and is due the following Monday. Homework sets are expected to be neat and only written on one side of the paper. "Doublesided" homework solutions will be returned to the student with a score of 0.

Add/Drop: As per College of Engineering policy, no drop forms will be signed after February 7, 2003.