

ChE 273

Review for Exam 1

Chapter 2

Conversion of Units/Systems of Units
Force Units (lb_m vs. lb_f , etc.)
Least Squares - Fitting a Straight Line
Logarithmic Coordinates

Chapter 3

Mass vs. Mole Fractions
Average Molecular Weight
Fluid Pressure and Hydrostatic Head
Manometers
Atmospheric Pressure, Absolute Pressure, and Gauge Pressure

Chapter 4

The General Balance Equation
Material Balance Calculations
 Flowcharts, Scaling and Basis of Calculation
 Balancing a Process - degrees of freedom
 Outline of a Procedure for Material Balance Calculations
Balances on Multiple-Unit Processes/Recycle and Bypass

How to Study

Please study hard before the exam; there is not time to study during the exam!

- Look at the competencies
 - Do I know how to do that stuff?
 - What kind of problems could be on the exam for each competency?
- Read the text
 - work through the examples in the text (from scratch!)
- Read the Rowley website/lecture notes on degrees of freedom analysis
 - walk through the examples in the lecture notes – (Do I understand?)
- Review the home work problems, check answer key – (Did I understand everything?)
- Review Dr. Fletcher's lecture notes posted on the web and my class notes
- Select problems from the end of chapters and work them
- Pose sample exam problems to other students in the class (What do I think is important?)

Exam Tips

1. Read all questions first
2. Work simple problems quickly (look at point distribution)
3. Set up longer problems (but no numbers)
4. Finish working problems you can (remember partial credit helps a lot)