Learning vs. Cramming

- Do you want a medical doctor who crammed for an exam and then forgot everything within a week?
- Would you go to a car mechanic who got an A on the exam but did not remember much after the class?
- The first test in Thermo is very similar to test 3 in the ChE 273 class, but somehow half the class did poorly!

Exam 1

- No Class on Friday
  - I will be available during class time by zoom
- 3-hour time limit
  - Penalty of 1 pt per minute
- Closed Book, Closed Notes
- Calculator only (no computers)
- Help Sessions:
  - During office hours for TAs

Logistics

- Exam is available for download from Learning Suite at 11 am today
- Do not download the exam until you are ready to take the exam!
- Scan your work and upload to Learning Suite
  - There is a signature page on the exam, stating that you obeyed the rules; please scan this page as well
- Use extra pages as necessary
- Email me if there are problems (tom_fletcher@byu.edu)

My Schedule

Time	M	T	W	Th	F
8:00	Class Prep		Class Prep		Class Prep
9:00	ChE273 214 CTB	Andrew Richards	ChE273 214 CTB		ChE273 214 CTB
10:00	ChE273 214 CTB	Mahsa A.	ChE273 214 CTB		ChE273 214 CTB
11:00		Devotional Marriott Center		Graduate Seminar	
12:00			Faculty Mtg		
1:00		College Council		Industrial Advisory	
2:00		Dean's Office		Board Meeting	
3:00		Fire Research	TA Mtg		Danny G.
4:00					

I want you to be successful!!!

- Please come see me if you need help!!

- I am not an ogre!

Course Outcomes

- Students will be able to perform unit conversions.
- Students will be able to set up and solve steady-state material balances.
- Students will be able to set up and solve transient mass balances.
- Students will be able to solve simple fluid statics problems.*
- Students will understand and be able to use the extent of reaction in material balances for systems involving chemical reactions.
- Students will be able to make order of magnitude estimates, assess reasonableness of solutions, and select appropriate levels of solution sophistication.
- Students will understand process variables (e.g., P, T, flow rate, conc.) including procedures and equipment for their measurement.
- Students will be able to ensure dimensional consistency when evaluating equations.

How Should I Study

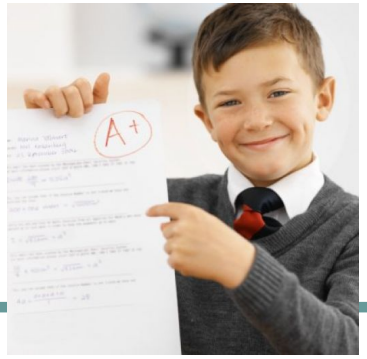
- Are you comfortable with each course outcome?
- Principles behind each homework problem
  - Answer keys are on Learning Suite
- Practice Exam (on Learning Suite)
- Studies have shown that re-reading the book does not really help!
  - Class notes posted on web page
- What would YOU put on the exam to cover the competencies?
- Learning Resources, U. Colorado videos

Tips on Taking Exams

- Get some sleep beforehand!!
- Read all questions first
- Work simple problems quickly
  - Look at point distribution
- Set up longer problems (but no numbers)
- Finish working problems you can
  - Remember partial credit helps a lot

Additional Exam Tips

- Write legibly!!!
- Circle answers!!!
- Make sure you answered everything that was asked!!!
- Make sure you included units in the answer!!!
- Does the answer make sense???



Practice Exam Results

Problem 1 (Units):	80%
Problem 2 (Balance Stoichiometry)	91%
Problem 3 (Combustion in Air)	92%
Problem 4 (Fluid head)	95%
Problem 5 (Multi-unit with Reaction)	83%
Problem 6 (Transient balance)	78%
Problem 7 (Multi-reaction)	86%
Overall Average	86%

Cautions

- Write out units & cancel them out!
- Manometers → balance pressure on both sides
- Gauge pressure vs. absolute pressure → seems simple
- Head form of the pressure balance?
- Get the signs right on the general balance equation
- Transient balances → what is your comfort level?
- Know how to read & draw a process flow diagram
- Basis → when do I use this?
- DOF → does your method get the right DOF for each unit?