Day 3 Notes:

After class, Ben – Discuss with Dr. Saad a course website.
http://wordpress.com/ - ???

PowerPoint – PA-chapter01.ppt (Pfleeger and Atlee, Software Engineering: Theory and Practice)
YOU CAN GET THE SLIDES FROM ANY OF THE FOLLOWING LINKS:
http://www.stiv2k.info/files/school/fall2009/cop4331/
http://selab.netlab.uky.edu/homepage/CS499fall09.htm

Note: The notes below are just ideas Dr. Saad mentioned while going through the powerpoint.
Where we've come from, where we'd like to go to...
“Software Engineering” term 1st appeared at a conference in 1968.
Software engineering is now:
   Better – Amazing the apps we now have. A web browser takes hundreds of thousands of lines of code.
TERMS: Analysis / Synthesis (see slide 4)
Solving problems (all terms on slide 7):
   Method / Tool / Procedure / Paradigm
   Computer science / Software engineering
“Software” is just one way to solve problems.
“Customers” are a big problem. Do they really know what they really want?
How much do you pay engineers, interns, licenses. If customer is paying, how do you capture requirements, evolve, and iterate?

1.2 How Successful have we been?
Dr. Saad mentions the text message application for donating to Haiti as a good story for how software can solve problems.
Fault vs. Failure (slide 11) – Human error causes a fault that can lead to a failure.
Examples?
   IRS hired Sperry Corp to build an automated federal income tax form processing process.
   Malfunctioning code in Therac-25 killed several people.
   Reliability constraints have caused cancellation of many safety critical systems.

1.3 What is good software? (slide 13)
Different views – Transcendental / User / Manufacturer / product / value based (slide 13)
Good software must always include a strategy for producing quality software – 3 ways of considering quality(slide 14)
How are different characteristics judged? (slide 15)
McCall's quality model (slide 16)
Quality of the development and maintainance process (slide 17)
Quality in the context of the business environment (slide 19)
   Return on Investment (ROI)
Industry's definition of ROI (slide 20)

...Keep going through slides...
1.8 How has SE Changed?
Wasserman’s Seven Key Factors (slide 33)
(slide 39) When would you choose one architectural decomposition technique over another? See slide 31 for graph to help determine different needs.

NEXT CHAPTER, WE’LL BE TALKING ABOUT THE LIFE CYCLE.

Question: “EMERGING AREAS” for computing (at the intersection of __x__ + corresponding implications for Software Engineering (S.E.).
Answer:
  Should be 3 areas + pointers, (URL, paper, report for each)
  One aspect of Software Engineering that is most critical to each area.
Essentially, find 3 different emerging areas & identify a critical aspect of each of those areas.