Welcome to the School of Engineering

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School of Engineering
The plan for today

• A little about the School of Engineering
• Majoring in Engineering
• Managing your Freshman year
• Questions

(Note: I’ll put these slides on my home page. Find it!)
What would you expect to find in the School of Engineering?

The word is diversity
What would you expect to find in the Electrical Engineering Department?
Electrical Engineering Department

- Computer Systems Laboratory
- Information Systems Laboratory
- Integrated Circuits Laboratory
- Solid State and Photonics Laboratory
- Space, Telecommunications and Radioscience Laboratory
What would you expect to find in the Mechanical Engineering Department?
Mechanical Engineering Department

- Biomechanical Engineering Division
- Design Division
- Flow Physics & Mechanics Computation Division
- Thermosciences Division
And so on…
Majoring in Engineering

The word is diversity
Majors

- Chemical Engineering
- Civil Engineering
- Computer Science
- Environmental Engineering
- Electrical Engineering
- Management Science & Engineering
- Material Science & Engineering
- Mechanical Engineering
- Aeronautics & Astronautics
- Biomechanical Engineering
- Biomedical Computation
- Computer Systems Engineering
- Product Design
- Individually Designed majors
Your companion in times of uncertainty
Majoring in Engineering

- University requirements
- School of Engineering requirements
- Departmental requirements
University requirements

• You’ve been hearing all about these
  – IHUM
  – PWR
  – General Education Requirements
School of Engineering
Requirements

• Mathematics & Science
  – 36 units min, 45 units max

• Technology in Society
  – 1 course

• Engineering Fundamentals
  – 3 courses

• Engineering Depth
Math courses

- Engineering math
  Requires AP credit & high school physics
  Alternative to Math 50 series
    - CME100
    - CME 104 – 106
    - See the flyer
  Emphasis is on engineering applications.
  Strong use of MATLAB

- Math through math dept.
  - Math 41, 42
    (single variable calculus)
  - Math 51, 52, 53
## CME Courses

<table>
<thead>
<tr>
<th>Fall 2004</th>
<th>Winter 2005</th>
<th>Spring 2005</th>
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</thead>
<tbody>
<tr>
<td>CME 100</td>
<td>CME 102</td>
<td>CME 102</td>
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<td>CME 106</td>
<td>CME 104</td>
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<tr>
<td>CME 108</td>
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Science courses

To take physics or not...?
To take chemistry or not...?
New engineering chemistry course

• E31 Introduction to Solid State Chemistry with Applications to Materials Technology
  – Fall Quarter
  – Equiv to Chem 31X for engineering majors
Engineering Fundamentals

• Provide introductions to individual fields
  – E.g. E20 Intro to Chemical Engineering; E40 Intro to Electronics; E60 Engineering Economics

• Provide breadth for majors
Technology in Society

• Don’t screw up the world
• Don’t break the law
• Other knotty problems
And remember...
Managing your freshman year

And beyond
• Work on your writing
• Take an Intro Seminar
• Knock on doors
• Keep up with the pace of the quarter system
• Think about getting involved in research (REU program)
• Enjoy Stanford – every day
An exciting time in engineering

And the times have changed
In 1967

Ben, I have one word for you…
Plastics
How the 21st Century is shaping up
• Bio
• Nano
• Info
• And the Environment
Be a Stanford Engineer!