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
• A request for help
  – Survey
• Questions
  (I’ll put these slides on my home page)
What would you expect to find in the School of Engineering?

The word is diversity
School of Engineering

- Bioengineering (new!)
- Civil and Environmental Engineering
- Electrical Engineering
- Materials Science and Engineering
- Mechanical Engineering
- Aeronautics and Astronautics
- Chemical Engineering
- Computer Science
- Management Science and Engineering
What would you expect to find in the Electrical Engineering Department?
What would you expect to find in the Mechanical Engineering Department?
And so on...
Majoring in Engineering

The word is diversity
Your companion in times of uncertainty
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
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
  – Engr 154
  – Engr 155a
  – Engr 155b
  – Engr 155c
  Emphasis is on engineering applications.
  Strong use of MATLAB

• Math through math dept.
  – Math 41, 42
    (single variable calculus)
  – Math 51, 52, 53
# Engineering Math Sequence Schedule

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<thead>
<tr>
<th>Freshman</th>
<th>Sophomore</th>
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<tr>
<td>Fall</td>
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<tr>
<td>Math 41</td>
<td>ENGR154</td>
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<td>Math 42</td>
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Science courses

• To take physics or not…?
• To take chemistry or not…?
  – Special section of Chem 31 in winter quarter with focus on materials
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
• 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
Be a Stanford Engineer!