What does an Industrial Engineer really do???
What you will learn

• What Industrial Engineering is
• Examples of Industrial Engineering (IE) activities
• The advantages of an IE college degree
Engineering – in general: creating and improving solutions to problems

- Do you know someone who is an engineer?
- What does that engineer do? Where?
Industrial Engineers Find a Better Way...

- A better way to make a product faster and easier
- A safer way
- A less expensive way
- They examine and analyze to find better ways to solve the problem
Industrial Engineers Find a Better Way... in many industries
Industrial Engineers Find a Better Way… in many industries

Harley Davidson air brushed gas tank for the Ergo Cup competition for process improvement in human factoring
Industrial Engineers Find a Better Way… in many industries
Industrial Engineers . . . what they do

• Manage projects by mapping out who does what, when, and look for ways to do it BETTER.
Industrial Engineers . . . what they do

- Improve process (way something is done)

The Boeing Company demonstrating a better way to lift and move into place an airplane door for assembly.
Industrial Engineers . . . what they do

• Improve process (way something is done)

IEs made the lines at amusement parks more efficient so you can have fun!
Industrial Engineers . . . what they do

• Speed up delivery through “supply chain”
Industrial Engineers . . . what they do

- Improve operations – safety and human factors

Example of better way to lift and move heavy items
Not true about engineering

- Only the “super-smart” can become engineers.
- All engineers are shy.
- Engineers have no outside interests.
- All engineers are men.
Industrial Engineers . . .

• Know how to have fun...
Would I like industrial engineering?

- Do you enjoy knowing how things work?
- Do you think of new or better ways to do things?
- Do you take things apart and put them back together with fewer parts?

- Do you get good grades in math and/or science?
- Do you like mazes or jigsaw puzzles?
- Do you like to figure things out?
What skills does an industrial engineer need?

- What subjects in school do you need to be studying?
Why should I become an industrial engineer?

So you can make existing & new products …

• Better…Safer…Healthier
• Easier to use
• Use less energy
• Cost less to make,
• Cost less to buy
• Improve the world around you
Advantages of an industrial engineering degree

- Great salary for a bachelor’s degree
  - Unlimited opportunities
  - Small towns, big cities
  - Small companies, large firms
  - International sites

- Respected career

- Work with other talented people

- Opportunity to make a large-scale difference
What can you do now to start preparing?

- Take math & science classes now
  - Algebra, geometry, trigonometry, calculus
  - Chemistry, biology, physics
- Begin planning for college
  - Take SATs or ACTs
  - Talk to your guidance counselor
Why math and science?

- **Math & science** train you to *draw conclusions* based on systematically gathered facts.

- **Math** trains you to *think logically* and recognize conclusions.

- **Science** trains you to *develop explanations* based on observations.
How can you learn more about industrial engineering?

• Spend time at work with an engineer.
• Talk with college students.
• Participate in a science fair.

Visit www.iienet.org
Questions?

• Thank you.