#### **Opportunities**

## What sorts of job titles do Industrial Engineers hold?

- Manufacturing Engineer
- Quality Control Engineer
- Methods Engineer
- Human Factors Specialist
- Safety Engineer
- Facilities Planning / Design Engineer
- Production Planner
- Project Engineer / Manager
- Human Resource Specialist
- Plant Engineer
- Industrial / Systems Engineer
- Consulting Engineer
- Operations Research Analyst

#### Who Hires Industrial Engineers?

- Automotive Companies
- Manufacturing Companies
- Retail Store Chains
- Theme Parks
- Hospitals

#### **Quick Facts**

- Starting salaries with a bachelor's degree in Industrial Engineering range from \$45,000 to \$55,000 per year.
- Industrial Engineering is a diverse field, utilizing both engineering and business skills that are relevant to many aspects of industry.
- Industrial engineers work in a wide range of industries ranging from manufacturing, to medical, to amusement parks.
- Famous Industrial Engineers include:
  - Lee lacocca —former C.E.O, Chrysler
  - Tom Landry —former coach, Dallas Cowboys
  - Pete Coors — CEO, Coors Brewing



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## Industrial Engineering







#### What is Industrial **Engineering?**

The primary focus of Industrial Engineering (IE) is to help businesses make good choices. Unlike other engineering disciplines where a very specific skill set is applied to a focused area of application, IE integrates information from a broad range of engineering and business disciplines. With such a diverse skill set. IE's can be found in widely varied industries. While some may work to reduce the lines at an amusement park, others will be working to improve manufacturing processes for automobiles. Still others will focus on saving companies money through improved supply-chain management and increased efficiency.

As world markets expand, companies must strive for continuous

improvement to remain competitive. Industrial Engineers are specifically trained to improve quality and productivity. They work to reduce waste and save money. Companies are hiring increasing numbers of industrial engineers and often promoting them into management positions.

"Industrial" does not just mean "manufacturing." Many IE's are employed in the service industries as well. For example, improvements in the safety and efficiency of hospitals, transportation facilities, and retail chains all benefit from the contributions of Industrial Engineers.

IE is a "big-picture" engineering discipline that trains students to understand the overall objectives of business and engineering endeavors. Students learn to think critically about the continuous improvement of processes and systems. Through that training, IE's enable companies to compete more effectively.



#### **Focus Areas in IE**

- **Operations Research**
- Manufacturing
- Engineering Management
- Productivity
- **Ergonomics**
- Safety Engineering

Because of their diversity and flexibility, Industrial Engineers are associated with a wide range of specialties.

# Did You

Know?

#### **Keeping America Competitive**

Over the past decade, American companies have nearly doubled their productivity. To keep up this pace, jobs continue to shift from low-skilled laborers to high-skilled innovators. Industrial

companies meet this ongoing



### Modern Manufacturing

Manufacturing is the single largest contributor to the Gross Domestic Product (GDP) of the United States.

The percentage contribution of manufacturing to the GDP has remained relatively unchanged for decades.

• The revenue generated by manufacturing is more than 3 times that generated by healthcare.

The U.S. Bureau of Labor Statistics predicts that, over the next decade, industries will need to add 27,000 additional industrial engineers to the existing 177,000 IE's in the current workforce.

Contributions to GDP, 2004

nance & Ro 6 Trillion

Manufacturing 4.3 Trillion