

Industrial Engineering and Engineering Management

Bachelor of Science

What is Industrial Engineering and Engineering Management?

Industrial engineers manage business operations, supervise workplace safety and quality control, and make manufacturing processes more efficient. They solve complex problems faced by business or industry, using a diverse toolkit of engineering disciplines and skills. They eliminate wastefulness in production processes - maximizing efficiencies and minimizing waste.

What does an industrial engineer do?

Industrial engineers are often called the engineer's engineer. Rather than focus on a specific engineering discipline, industrial engineers take a broader approach, training in all engineering areas in order to manage a system or operation. Industrial engineers develop efficiency systems to integrate workers, machines, materials, information and energy to provide a service or produce a product.

The IE discipline lends itself to a wide range of jobs, from mine safety to office ergonomics. They design, improve, install, and manage systems of people, material and equipment in banks, plants, hospitals, government, transportation, construction, social services and electronics.

Careers

Some duties an industrial engineer might do include:

- Design facilities for people with disabilities
- Oversee workplace safety
- Model logistics for humanitarian relief
- Develop management control systems to make financial planning and cost analysis more efficient
- Review production schedules, engineering specifications, process flows and other information to understand a manufacturing process
- Design and enact quality control procedures to minimize costs
- Gathering data
- Data analysis
- Design layout of equipment, materials and workspace to identify efficiencies
- Estimate production costs



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