INDUSTRIAL AND MANUFACTURING ENGINEERING

Industrial and manufacturing engineers are concerned with the design, improvement, installation, and operation of integrated systems of people, material, information, and energy for the development of environmentally sound and globally competitive enterprises.

Industrial/manufacturing engineers are needed in industries ranging from medical products and equipment manufacturing to automotive and electronic components manufacturing. Their skills benefit organizations such as hospitals, banks, airlines, telecommunications companies, and more. Some activities of an industrial/manufacturing engineer include: methods improvement; plant layout; integration of automation components (CAD and CAM); logistics; supply chain management; economic analysis; optimization of resources; quality control; reliability analysis; and ergonomics, i.e., design of workplaces, equipment, and tools for maximum productivity and employee comfort and safety.

In manufacturing companies, industrial/manufacturing engineers may be responsible for production and inventory control, quality control, plant layout, and work station design, and may lead the effort for the introduction of new technologies and other advancements. In service organizations these engineers may develop methods for optimal utilization of resources, such as doctors, nurses, and medical equipment in a hospital; determine the optimal number of communication lines and service level for a telephone company; participate in the development of a total quality management system for a bank, etc.

Mission Statement

The mission of the department is to provide a broad-based education in industrial and manufacturing engineering and to prepare students for a diversified career in industry, academia, government, and private sectors.

Programs

- Industrial Engineering, BSE (http://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/industrial-engineering-bse/)
- Industrial Engineering, Minor (http://catalog.uwm.edu/engineering-applied-science/industrial-manufacturing-engineering/industrial-engineering-minor/)