The WSU IE department has provided me with the most powerful tool sets used in industry today.

-Brent Gillett, BSIE 2007
Advanced Planning Engineer at BMW

I think the greatest strength of the IE school at Wayne is that it not only prepares students for the workplace academically but also provides practical experience through the internships and programs such as OMLP.

-Sid Babbar, BSIE 2009
Engineering Associate at Channel Vantage
**What is Industrial Engineering?**

The industrial engineer is a broadly-trained integration engineer, concerned with enabling complex systems to function effectively. Managing the inventory of a production facility, for example, involves issues of production and stocking policy, manufacturing equipment, human resources, customer demand, and supplier relationships. The industrial engineer must understand the interaction of the components of a system, and coordinate the flow of materials and information to effectively manage the operation. The industrial engineer plays an important role in defining information needs and developing strategies for decision making based on incomplete knowledge.

Industrial engineering is the most wide-ranging engineering discipline in terms of career options. The following are common entry-level or early management jobs for our graduates in manufacturing, health care, and other related engineering fields.

- Production engineer
- Quality engineer
- Management engineer
- Productivity manager
- Process engineer

**Bachelor of Science in Industrial Engineering**

A BS degree in IE requires a minimum of 124 credit hours of coursework. A student’s path in IE will be determined by meeting with an advisor and determining the best framework to meet one’s academic and career goals. All students will take a combination of IE core requirements, technical electives and directed electives. The BSIE program culminates with the Engineering Design capstone project. The capstone courses integrate all of the knowledge accumulated during the program to create practical and professional projects with oversight from the department’s industrial partners.

Students can also supplement their curriculum with the Operations Management Leadership Program (OMLP) or the Engineering Entrepreneur Certificate (EDGE). OMLP was developed as a solution to meet local manufacturing and service industry challenges in hiring and retaining first-line supervisors and managers. OMLP positions emphasize the continued increase of responsibility in operations management. The program focuses on delivering a sequence of courses, projects, and applied experiences to develop the skills necessary to be successful in today’s global environment. EDGE exposes and trains engineering students in the entrepreneurial skills required to commercialize new ideas, technologies, and products. EDGE allows students to take courses in entrepreneurial marketing, finance, law, and management in combination with traditional engineering courses. Students will also have the opportunity to put their learning into action by way of an entrepreneurial capstone project in their field of study.

*more information is available at:
http://ise.wayne.edu/bs-industrial/index

**Careers in Industrial Engineering**

Industrial engineers are highly sought-after in many industries. In the spring of 2011, CNNMoney listed IE as one of the top ten best-paying college majors. In addition, according to the US Bureau of Labor Statistics, the mean salary for industrial engineers is more than $78,000.

IE students at Wayne State have been successful in finding internships and full time career opportunities with the following companies:

- American Axle & Manufacturing, Inc.
- Blue Cross Blue Shield of Michigan
- The Boeing Company
- Chrysler, LLC
- Delphi Automotive, LLC
- Ford Motor Company
- General Electric Company
- General Dynamics Land Systems Corporation
- General Motors Company, LLC