



Graduate Programs in Industrial Engineering



PennState
World Campus

A world of possibilities.
Online.



Online Learning Through Penn State World Campus

Penn State World Campus created these flexible online programs to allow you to complete your course work when and where it is most convenient for you. Though courses have fixed start and end dates with assignment deadlines, you can decide when to do your course work to meet those deadlines. And you will still receive the same high-quality education provided by Penn State's resident programs. Your learning will be supported by instructional resources and frequent interaction with faculty and your fellow students.

Once you successfully complete the requirements for either program, you will receive a degree or certificate that is identical to the one received by any Penn State student, with no mention of online or distance education.

Master of Engineering in Industrial Engineering

Penn State's 30-credit Master of Engineering in Industrial Engineering, delivered online through Penn State World Campus in partnership with the College of Engineering, can prepare you to use scientific management techniques and mathematical concepts to bridge the gap between business systems and operations. A successful graduate will be able to provide insight to streamline and improve processes to eliminate the waste of time, money, materials, energy, and other resources. You can gain the ability to understand, analyze, and resolve organizational problems, and the skills and knowledge you acquire in this program are applicable in nearly every industry, which can translate to a wide variety of career opportunities.

Curriculum

Industrial engineers apply science, mathematics, and engineering methods to complex systems; they need to possess knowledge in many disciplines, the ability to work well with people, and a broad system perspective. This flexible program has limited formal course requirements, so you and your adviser can tailor it to suit your personal interests and professional goals.

As a student in this program, you will study topics including:

- › human factors
- › modeling
- › systems simulation
- › work design
- › product design
- › manufacturing processes

To graduate from the program, you will also be required to complete a capstone course, applying the analysis and design skills that you have learned in your courses to solve a real-world problem in your workplace.

Graduate Certificate in Human Factors Engineering and Ergonomics

Penn State's 9-credit online Graduate Certificate in Human Factors Engineering and Ergonomics can provide you with fundamental knowledge in designing and developing products for human use along with product and workplace design. Many industries, such as aerospace, consumer products, medical, manufacturing, and military, utilize these applications. This certificate can provide you with a marketable credential as you enter this field, and the credits you earn may be applied to the Master of Engineering in Industrial Engineering. A separate application and acceptance are required for the master's program. To earn this graduate certificate, you will complete the following courses:

Human-Centered Product Design and Innovation

Global market consumer product design that incorporates human factor principles and user desires in a multicultural perspective.

Engineering of Human Work

Physics and physiology of humans at work; models of muscle strength; dynamic movements; neural control; physical work capacity; rest allocation.

Engineering of Cognitive Work

Information processing and decision-making models in the modern workplace, emphasizing visual inspection and other industrial applications.





Begin Your Application Today

To apply for admittance to either of these programs, you will need to complete an online Graduate School application by clicking the “Apply Now” link on the program overview page:

Master’s: worldcampus.psu.edu/ieonline

Graduate Certificate: worldcampus.psu.edu/hfeeonline

Program Benefits

- › Learn through convenient online courses taught by the same experienced faculty who teach on campus.
- › Enhance your résumé with a respected degree from a university consistently ranked by *U.S. News & World Report* as having one of the nation’s best engineering schools.
- › Stand out in a competitive job market; acquire a skill set valued across a wide range of industries.

Contact Us

Program Questions

Andris Freivalds, Ph.D.

*Lucas Professor, Industrial and Manufacturing
Engineering (IME) Department*

axf@psu.edu

814-863-2361

worldcampus.psu.edu/ieonline

Admissions Questions

pennstateonline@psu.edu

814-863-5386

worldcampus.psu.edu/admissions



PennState
World Campus

The Pennsylvania State University
128 Outreach Building
University Park, PA 16802

 @psuworldcampus

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