



# Master of Engineering Management



**PennState**  
World Campus

**A world of possibilities.  
Online.**

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“Penn State’s highly ranked graduate program in engineering management builds management and leadership skills for professionals working in technical organizations. Our progressive program features skill-based stackable certificates in quantitative decision-making, quality management, and technical management and leadership. These certificates enhance your skills to manage teams, projects, and resources in technical organizations as well as prepare you for advancement into leadership roles.”

— **Nil Hande Ergin**  
**Professor in Charge, Master of Engineering  
Management and Master of Engineering in  
Systems Engineering**  
**Associate Professor of Systems Engineering**

# Earn a Master of Engineering Management — Online

Many engineers, over time, may find they have become locked in technical roles with little or no ability to influence the direction or management of their organization. This degree can provide you with knowledge and skills that span both operations and technology, giving you the ability to lead and manage engineering operations and influence overall organization direction — a competitive advantage not often found in industry.

As a student in this interdisciplinary graduate degree program, you can build your technical management and leadership skills and deepen your understanding of traditional and emerging technologies. The program's courses focus on the technical skills needed to manage complex, heterogeneous engineering projects, products, and services as well as the theoretical knowledge needed to become a leader in an organization.

## Benefit from cohort-based learning

From start to finish, you'll progress through the program with others in your cohort. You'll gain valuable experience interfacing, collaborating, and networking with peers and faculty while completing projects remotely, just as teams do in the broader global marketplace.

## Earn stackable credentials on the way to your degree

In this program, you can earn three valuable graduate certificates to recognize your new skills and knowledge while you work toward your master's degree — without any additional course work or application fees. Stackable credentials are a great way to gain new skills and enhance your résumé while working toward a master's degree. To reach the 33 credits required to earn the Master of Engineering Management, you'll work on:

- › Graduate Certificate in Quality Management Across Product Lifecycle (9 credits)
- › Graduate Certificate in Quantitative Decision-Making for Engineering Managers (9 credits)
- › Graduate Certificate in Technical Management and Leadership Essentials (12 credits)
- › Capstone experience (3 credits)

## Engineering management curriculum

The program combines business and analytical courses to foster skills focused on helping management

positions in technical organizations. It also explores analytical approaches to solving technical and sociotechnical problems, leading technical teams, and managing technical projects in the presence of uncertainty and risk. Under the guidance of faculty, your capstone course will challenge you to apply critical and strategic thinking through thoughtful analysis and discussion of recent engineering and technology management cases.

## Learning outcomes

As a successful graduate of this program, you can be prepared to:

- › demonstrate knowledge of foundational principles of engineering management, including technical, social, and economic factors
- › evaluate the financial aspects of projects and integrate them with different technical and engineering components
- › successfully communicate ideas and findings within an organization, to other practicing professionals, and to the public
- › effectively lead multidisciplinary teams

### **The following roles are often held by people with this type of degree:**

- › product manager
- › quality assurance engineer/manager
- › process engineer/manager
- › operation manager
- › test engineer
- › project engineering manager

# Graduate Certificate in Quality Management Across Product Lifecycle

The Graduate Certificate in Quality Management Across Product Lifecycle is a program that focuses on maintaining quality standards within a technical organization, overseeing teams responsible for the implementation of manufacturing processes and equipment, designing and implementing test strategies to ensure product quality, gaining a deep understanding of Lean Sigma Six, and managing technical projects from start to finish. You'll take the following courses:

- › Applied Statistics
- › Systems Optimization
- › Application of Statistics in Quality and Continuous Improvement in Engineering



## Graduate Certificate in Quantitative Decision-Making for Engineering Managers

The Graduate Certificate in Quantitative Decision-Making for Engineering Managers focuses on leading product, service, and process development; managing technical and data-driven decision-making and risk analysis; and understanding engineering economics analysis and financial resource management. You'll take the following courses:

- › Engineering Management Science
- › Decision and Risk Analysis in Engineering
- › Economics and Financial Studies for Engineers

## Graduate Certificate in Technical Management and Leadership Essentials

The Graduate Certificate in Technical Management and Leadership Essentials will explore the skills needed to plan, organize, and execute a technical project from start to finish while managing multiple teams within a technical organization. You'll take the following courses:

- › Technical Project Management
- › Creativity and Problem-Solving 1
- › Ethics and Values in Science and Technology
- › Organizational Behavior

These graduate certificates can be earned on their own and also used as stackable credentials that apply toward the Master of Engineering Management.



## Why Penn State World Campus?

Penn State World Campus is an industry leader in online education, delivering more than 175 undergraduate and graduate degrees and certificates. Our mission is to provide a Penn State education to anyone, anytime — focusing on quality, convenience, and flexibility, while delivering high-quality degrees and certificates online.

### A reputation of excellence

Putting a Penn State degree or certificate on your résumé is a great way to broaden your career options and prove to employers that you are a well-educated professional.

### Flexibility and convenience

Penn State knows that adults need flexible and convenient learning options in order to continue meeting their professional and personal commitments. You can study when and where you please, earning your credential at your own pace.

### Student support services

As a Penn State World Campus student, you will be supported by a team of knowledgeable and caring staff who understand the unique challenges of balancing work and personal responsibilities while learning online. You will have access to traditional student support services, such as 24/7 technical support, career services, and a dedicated student affairs team, along with access to the University Libraries system and the opportunity to join clubs and organizations.

### Military and veteran students

We have aligned our online programs, student support services, policies, and procedures to support military personnel, veterans, and military family members.

[worldcampus.psu.edu/MEM](https://worldcampus.psu.edu/MEM)

# Begin Your Application Today

When applying to the master's degree or certificate programs, you must include the following:

## **Application requirements for the Master of Engineering Management include:**

- › application form (completed and submitted online)
- › copy of official transcripts from each undergraduate and graduate institution attended
- › 2 references
- › résumé
- › statement of intent
- › TOEFL or IELTS score, if applicable

## **Application requirements for the graduate certificates include:**

- › application form (completed and submitted online)
- › copy of official transcripts from each undergraduate and graduate institution attended
- › TOEFL or IELTS score, if applicable

For the most up-to-date information about these application materials and to apply, visit: [worldcampus.psu.edu/admissions/how-to-apply](http://worldcampus.psu.edu/admissions/how-to-apply)

## Did You Know?

- › Penn State World Campus is consistently ranked as a top provider of online education by *U.S. News & World Report*.
- › Penn State credits and degrees earned online are identical to those earned on campus.
- › Penn State World Campus has enrolled students from all 50 states and all seven continents.
- › Our online courses involve frequent interactions among students and faculty.



# Contact Us

## Admissions Questions

[worldcampus@psu.edu](mailto:worldcampus@psu.edu)

Phone: 814-863-5386

[worldcampus.psu.edu/admissions](http://worldcampus.psu.edu/admissions)

## Program Questions

[enghelponline@psu.edu](mailto:enghelponline@psu.edu)



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