

# Graduate Capstone Certificate Applied Engineering Management

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GRAD ENGINEERING  
2023

## Expand upon your technical background by preparing to lead engineering and project teams.

As a student in the Capstone Certificate in Applied Engineering Management program, you'll explore foundational management and leadership skills, learn to evaluate the nuances of financial decision-making and apply data analysis and technical tools to engineering applications – all designed to give you the practical skills and in-demand expertise to advance professionally or work toward a graduate degree.

Incorporating fundamental applied management skills such as leadership, data-driven decision-making and economic analysis for managers, this certificate can be a standalone credential or a steppingstone to our Master's degree in Engineering Management.

In addition to core online coursework in engineering leadership, economics and decision-making, you'll select an elective course to grow your skillset in one of three areas: project management, communications or ethics, allowing you to tailor your certificate to your professional goals.

## Sample Plan of Study

The nine-credit Capstone was designed for completion in three consecutive terms of three credits per term:

<b>Fall</b>	EPD 610	<b>Engineering Analysis for Decision-Making</b>
<b>Spring</b>	EPD 611	<b>Engineering Economics and Management</b>
<b>Summer</b>	EPD 710	<b>Foundations of Engineering Leadership</b> and one elective from the following: <ul style="list-style-type: none"><li>• Writing for Professionals</li><li>• Presentations for Professionals</li><li>• Ethics for Professionals</li><li>• Project Management</li></ul>

Credits will transfer to the Master of Science: Engineering Management (MSEM) degree with appropriate grades and timing. Grades earned in AEM classes will factor into the qualifying GPA for MSEM admission.



## Apply Now!

Visit [interpro.wisc.edu/AEM](https://interpro.wisc.edu/AEM)

### At a Glance

**Delivery:** Online

**Credits:** 9 graduate credits

**Time Frame:** 1 year

**Tuition: Resident and non-resident:**  
\$1,300 per credit

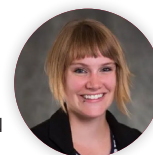
### Questions?

**For more information on admission requirements, how to apply, tuition and financial aid or other questions, contact:**

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**WISCONSIN**  
UNIVERSITY OF WISCONSIN-MADISON



## Admission Requirements

- B.S. degree in engineering from an ABET-approved program
- Minimum undergraduate GPA of 2.75/4.0
- GRE: Not required but may be considered if available
- Applicants whose native language is not English or whose undergraduate instruction was not in English must provide an English proficiency test score

Applications are accepted for admission to all three terms (fall, spring, summer) and are reviewed in the order received. Admission is competitive and selective. Applicants are encouraged to submit application materials prior to the deadline.

## Where and How You Learn

Classes meet online once a week; each class is available at more than one time and is recorded, so you can participate regardless of your travel schedule or location.

Engineering Management courses follow a consistent rhythm to help you work with your busy schedule. Readings and recordings are assigned at the beginning of the week, and you can choose between two web conferences that best fit your busy schedule. Throughout the week you will participate in online discussions, work on individual homework, and work collaboratively with your team on projects. Every Sunday, the week's homework is due.



## Required Courses

### Engineering Analysis for Decision-Making

Quantitative and qualitative analysis and visualization tools. Structured decision-making methodology for engineering applications such as variations in materials and production, process control, forecasting and executive decision making. Facilitate persuasive problem-solving and decision making in engineering applications. Builds on foundational knowledge of statistics.

### Engineering Economics and Management

Addresses principles and practices of interpreting financial information and performing engineering-related economic analyses. Focuses on the practical use of economic information for decision-making.

### Foundations of Engineering Leadership

Build the foundations for developing, refining, and strengthening your effectiveness as a leader of engineering teams, projects, and organizations. Enhance your understanding of how to match your leadership style to a team's focus, organization, and culture. Grow your understanding of your strengths and weaknesses as a leader using proven assessment tools. Develop a plan for growing your leadership competency.

## Electives

### Writing for Professionals

Preparation to produce effective written communication that is suitable for inter-professional and inter-disciplinary audiences in a variety of workplaces. Apply these strategies and tools.

### Presentations for Professionals

Sharpen your ability to create, edit, review, and present information in an efficient, clear, and effective way for your audiences. Develop your presentation skills through a series of presentations related to your professional interests and work.

### Ethics for Professionals

Explores how our actions affect others and influence the choices we make within the workplace. Enhance ethical competencies by providing opportunities to discuss challenges to behavior and decision-making in different professional contexts.

### Project Management Essentials

Techniques that will help to plan, execute, and deliver projects with desired scope on time and on budget. Learn to document clear project objectives and goals, accurately estimate project time and costs, schedule and allocate time-critical resources, and establish feedback systems for optimal project control.

**Flexible Curriculum • In-Depth Technical Knowledge • Start Fall, Spring, or Summer**

Learn more at [interpro.wisc.edu/AEM](https://interpro.wisc.edu/AEM)

**College of Engineering • Interdisciplinary Professional Programs**

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