

YOUR GUIDE TO AN ADVANCED DEGREE



Online ENGINEERING MASTER'S PROGRAMS



UNIVERSITY OF WISCONSIN-MADISON

[go.wisc.edu/
online-eng-masters](https://go.wisc.edu/online-eng-masters)



Today's challenge for tomorrow's leaders

UW–Madison's College of Engineering is committed to helping engineers go further in their careers with advanced skills. We pioneered online engineering programs that allow working engineers to earn a master's and keep up with their current obligations. Today our programs are ranked among the best in the nation. They're equal in quality, meet the same standards and have the same academic status as our traditional on-campus programs. With the online format, your program is available wherever you happen to be.

How will a master's degree help you?

- On average, engineering majors with graduate degrees earn 25% more than those with a bachelor's degree¹
- You'll be more likely to move into management and leadership roles
- Master's programs provide an opportunity to concentrate on specialized areas
- Greater opportunities result from having advanced knowledge

What can I expect from the program?

- World-class instructors with top industry connections
- Student peers who become a vibrant branch of your professional network
- Challenging real-world applications of course concepts and projects

¹Source: Georgetown University Center on Education and the Workforce, *The Economic Value of College Majors*, 2015



**UW–Madison online
engineering master's
graduates work at
some of the nation's top
companies including
NASA, Lockheed Martin,
John Deere, Honeywell,
General Motors,
Harley-Davidson,
Google, Medtronic
and 3M.**



UW–Madison’s online engineering master’s degree programs are ranked among the best in the nation as reported by U.S. News & World Report.

The online programs are directed by renowned University of Wisconsin faculty and industry leaders. The insights students receive from the course projects can be applied to current and future projects in the workplace.



MASTER’S DEGREES

ENGINEERING DATA ANALYTICS

Master of Engineering: Data Analytics

Learn to lead strategic initiatives that capture and transform complex data into knowledge that drives improvements to engineering analysis, design and performance. Sessions start in spring and fall and a degree can be earned in 2–3 years. 30 credits/\$1,300 per credit.

ENGINEERING MANAGEMENT

Master of Engineering: Engineering Management

Considered the “engineer’s MBA,” this program enhances your technical background with management and business skills to prepare you for engineering management leadership roles. Sessions start in summer, fall and spring and a degree can be earned in 2–3 years. 30 credits/\$1,300 per credit.

ENGINE SYSTEMS

Master of Engineering: Engine Systems

Learn to lead the entire engine design program by integrating thermal sciences, mechanics, controls and manufacturing into the design process. Sessions start in fall and a degree can be earned in 2.5–3.5 years. 30 credits/\$1,300 per credit.



CAPSTONE CERTIFICATES

ENGINE DESIGN

Develop critical expertise in internal combustion engine design. A capstone certificate in engine design can lead to greater career opportunities or provide a path to an eventual master’s in engine systems. Students earn nine credits over three semesters. All credits may be transferred to the Master of Engineering: Engine Systems program. 9 credits/\$1,300 per credit. Complete in 1–2 years.

POLYMER PROCESSING AND MANUFACTURING

Students enhance their ability to analyze and model processes for the manufacture of plastics including extrusion, injection molding and mold and equipment design. Fall or spring enrollment, finish in 1–2 years. All nine credits earned may be transferred to the Master of Engineering: Polymer Engineering degree. 9 credits/\$1,300 per credit.

ENVIRONMENTAL ENGINEERING

Master of Engineering: Civil and Environmental Engineering

This program focuses on finding engineering solutions to environmental challenges with a focus on water resources. Students learn to lead teams, communicate effectively and manage projects. Sessions start in summer, fall and spring and a degree can be earned in 3 years. 30 credits/\$1,300 per credit.

MANUFACTURING SYSTEMS ENGINEERING

Master of Engineering: Manufacturing Systems Engineering

Learn to lead and optimize the entire manufacturing process from production and supply chain through sales and service. Sessions start in spring and fall and a degree can be earned in 2–3 years. 30 credits/\$1,300 per credit.

POLYMER ENGINEERING

Master of Engineering: Polymer Engineering

Gain in-depth knowledge of traditional plastics as well as the latest innovations in specialty polymers which have applications in the biomedical and pharmaceutical fields, in electronics and nanotechnology. Sessions start in spring and fall and a degree is earned in 2–4 years. 30 credits/\$1,300 per credit.

POWER ENGINEERING

Master of Science in Electrical Engineering: Power Engineering

The Capstone Certificate in Power Conversion & Control is required for entry to this program. Earn a respected credential from a top engineering school and expand your technical knowledge of power electronics, drives and controls. Sessions start in spring and fall and a degree can be earned in 2–4 years. 30 credits/\$1,600 per credit.

SUSTAINABLE SYSTEMS ENGINEERING

Master of Engineering: Sustainable Systems Engineering

Make a difference in the world by finding ways to improve energy efficiency and optimize and manage renewable energy by applying your expertise to policy, science, economics, innovation and change management. Sessions start in spring and fall and a degree can be earned in 3 years. 30 credits/\$1,300 per credit.

POWER CONVERSION AND CONTROL

Work with faculty from Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC) to gain design experience. All nine credits apply to the Master of Science in Electrical Engineering: Power Engineering degree. Sessions start in spring, summer and fall and can be completed in 1–2 years. 9 credits/\$1,600 per credit.

POWERTRAIN ELECTRIFICATION

Students deepen their knowledge of what it takes to hybridize a powertrain by exploring the necessary design considerations for the engine and electric drive to work together. Students who choose to continue their education can transfer all 10 credits to the Master of Engineering: Engine Systems program. Start fall or spring semester. 10 credits/\$1,300 per credit. 1–2 years to completion.

A program that fits you

You have other obligations and responsibilities. That's why we've designed our programs to work with your life.



Online format can be accessed anytime, anywhere



Faculty and staff support students

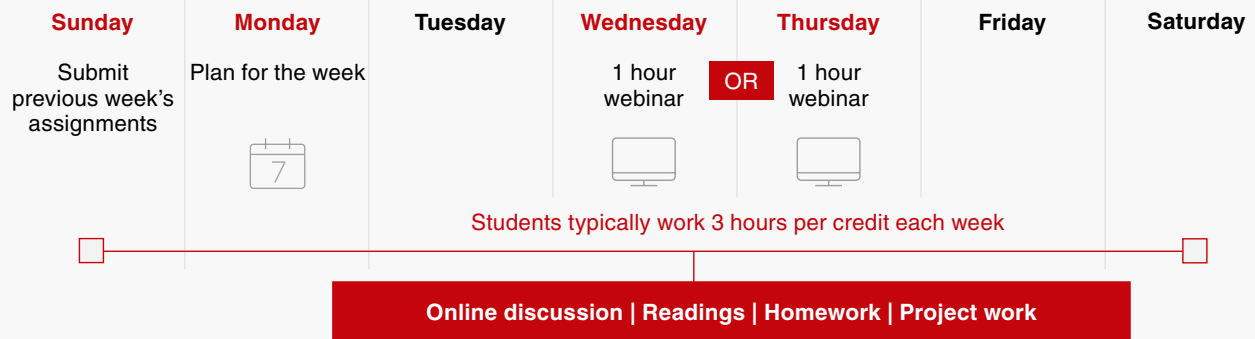


Learning is applicable to current projects



Programs have the same rigor as on-campus UW–Madison degrees

A TYPICAL WEEK



Master's degrees made a difference

Matt Hilgendorf | Engineering management

Matt Hilgendorf is currently a value stream manager at Atkore International. He was named 2018 Outstanding Young Manufacturing Engineer by the Society of Manufacturing Engineers.

"I chose the engineering management program after researching MBA program after MBA program, then discovering that UW-Madison catered to professionals in my situation."

John Dolan | Engineering management

John Dolan was actively deployed as a military officer while working on his degree. Despite having to connect from an "undisclosed location," he was successful in earning his master's.

"The professors completely understand that we have day jobs and we're trying to do school at the exact same time. They're willing to adapt to the competing factors that we deal with on a day-to-day basis and they're still committed to our success and growth as professionals."

Hélène LeFort-Cornils | Engine systems

Hélène LeFort-Cornils sought the Master of Engineering: Engine Systems (MEES) degree to fill the gaps in her experience.

"I travel a lot, and a normal class setting would not have worked for me, as I would have missed half of the classes," she says. "The online delivery approach was the least disruptive to my work. I was able to set my own schedule and plan my days accordingly."

Besides a valuable education, MEES gave LeFort-Cornils a wider network of engineering professionals and "a great sense of accomplishment." She continues to rely on that network, turning to her MEES colleagues for help when faced with a challenging issue at work.

Richard Ort | Manufacturing Systems Engineering

John Deere Power Systems
Strategic Manufacturing Engineer

"The best part of the program was being able to immediately apply the tools learned."



Pat
Walsh



We're here to help you succeed

For information and insight on engineering master's degrees and certificates, contact Pat Walsh.

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Connect with me on [LinkedIn](#)