Become the engineer who confidently leads the transformation of big data into informed, high-impact actions.

What You Learn

• Understand and apply appropriate data analysis tools and methods to drive improvements to products and processes, research, design, testing, and operations.

• Apply best methods and practices for the capture, storage, cleaning, querying, analysis, and visualization of data

• Evaluate and implement the most effective computing technology, modeling techniques, and analysis methods for your engineering projects

• Sharpen your ability to effectively lead change efforts by improving your skills in project management, team leadership, and professional communications.

Where and How You Learn

Where
Online; you may start in the fall or spring semester of any year

How
Complete 15-credit core curriculum in data analytics and 15 elective credits that span either additional data science courses or other online engineering and professional development courses.

Classes meet online once a week; each class is recorded, so you can participate regardless of your travel schedule or location.

I selected the MEDA program as a way to supplement my engineering background in a world inundated with data. The program has delivered by providing new skills, directly improving the value of my work.

John Kroening,
Oshkosh Corp.

Apply Now!
Visit go.wisc.edu/MEDA

At a Glance

Delivery: Online
Credits: 30 graduate credits
Time Frame: 2 to 3 years
Tuition: Resident and non-resident: $1,300 per credit

Typical Curriculum

• Industrial Data Analytics
• Machine Learning
• Database Design and Management
• Data-driven Decision Making
• Computing Architectures
• Design Optimization
• Technical Project Management
• Engineering discipline courses in manufacturing, engine systems, power, management, and polymers

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

Graduate Programs Coordinator
608-262-0468
gradadmissions@epd.wisc.edu
Choose from a Broad Selection of Elective Courses in Five Concentrations

Add electives from one or more concentrations to reach degree requirements of 30 credits. You develop your custom plan of study in consultation with the program director.

**Management**
- Engineering Economic Analysis and Management .................................................. 3 cr.
- Marketing for Engineers ............................................................................................ 3 cr.
- International Engineering Strategies and Operations .................................................. 3 cr.
- Communicating Technical Information .................................................................... 3 cr.
- Engineering Law ........................................................................................................ 2 cr.

**Manufacturing**
- Production Systems Analysis ................................................................................... 3 cr.
- Supply Chain and Logistics Management ................................................................. 3 cr.
- Quality Engineering and Quality Management ......................................................... 3 cr.
- Technical Project Management .................................................................................. 3 cr.
- Smart Manufacturing .................................................................................................. 3 cr.
- Inspection, Quality Control and Reliability .............................................................. 3 cr.

**Engine Systems**
- Engine Performance and Combustion ........................................................................ 4 cr.
- Perspectives in Engine Modeling .............................................................................. 2 cr.
- Analysis of Trends in Engines: Legislation and Alt. Fuels ....................................... 1 cr.
- Analysis of Trends in Engines: Powertrain Tech and Manufacturing Constraints ... 1 cr.
- Thermal Systems Engineering ................................................................................... 2 cr.

**Power**
- Electromechanical Energy Conversion ...................................................................... 3 cr.
- Intro to Electric Drive Systems ................................................................................ 3 cr.
- Power Electronic Circuits ......................................................................................... 3 cr.
- Electric Power Systems ............................................................................................. 3 cr.

**Polymers**
- Engineering Design with Polymers .......................................................................... 3 cr.
- Polymer Characterization .......................................................................................... 3 cr.
- Polymer Coatings ...................................................................................................... 3 cr.
- Plastics Recycling and Sustainability ......................................................................... 3 cr.

**Professional Development Electives**
- Connected Learning Essentials ................................................................................. 1 cr.
- Presentations for Professionals ................................................................................ 1 cr.
- Writing for Professionals ............................................................................................ 1 cr.
- Marketing for Non-Marketing Professionals ............................................................. 1 cr.
- Organizational Communication and Problem Solving .......................................... 1 cr.
- Change Management ................................................................................................ 1 cr.
- Leading Teams .......................................................................................................... 1 cr.
- Creating Breakthrough Innovations ......................................................................... 1 cr.
- Ethics for Professionals .............................................................................................. 1 cr.
- Effective Negotiation Strategies ............................................................................... 1 cr.

Listed courses and schedule are subject to change.

Sample Plan of Study

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<th>Class Name</th>
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<td>1st SP</td>
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<td>ME 759 High-Performance Computing for Applications in Engineering</td>
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College of Engineering • Engineering Professional Development
705 Extension Building 432 North Lake Street Madison, Wisconsin 53706
Phone: 800.462.0876 or 608.262.2061 Fax: 608.263.3160 Web: epd.wisc.edu