

# Master of Engineering: Engineering Data Analytics

**BEST**  
ONLINE PROGRAMS

**U.S. News**  
& WORLD REPORT

GRAD ENGINEERING  
2022

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, spring or summer 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.

## Apply Now!

Visit [go.wisc.edu/MEDA](http://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
- Computing Concepts
- Design Optimization
- Data Visualization
- Applied Temporal Data Analytics
- Technical Project Management
- Engineering courses in Leadership, Manufacturing, Polymer Engineering, and Sustainable Systems

## Questions?

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

Justin Bush

608-262-0468

[justinkyle.bush@wisc.edu](mailto:justinkyle.bush@wisc.edu)

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.*



**Interdisciplinary  
Professional Programs**  
COLLEGE OF ENGINEERING  
UNIVERSITY OF WISCONSIN-MADISON

# Sample Plan of Study

	Class Number	Class Name	Cr
<b>1<sup>st</sup> FA</b>	EPD 416	Engineering Applications of Statistics	3
	ME 459	Computing Concepts for Applications in Engineering	3
<b>1<sup>st</sup> SP</b>	ISyE 524	Introduction to Optimization	3
		Choose an Elective	3
<b>1<sup>st</sup> SU</b>	ISyE 512	Inspection, Quality Control, and Reliability	3
<b>2<sup>nd</sup> FA</b>	ECE 532	Matrix Methods in Machine Learning	3
	ISyE 602	Interactive Data Visualization	3
<b>2<sup>nd</sup> SP</b>	ISyE 412	Foundations of Industrial Data Analytics	3
	ISyE 603	Applied Temporal Data Analytics for Engineers	3
<b>3<sup>rd</sup> FA</b>	EPD 612	Technical Project Management	3

Listed courses and schedule are subject to change

## Choose from a Broad Selection of Elective Courses in Four 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

### Leadership

Engineering Economics and Management.....	3 cr.
Technical Project Management.....	3 cr.
Fostering and Leading Innovation.....	3 cr.

### Manufacturing

Production Systems Engineering.....	3 cr.
Quality Engineering and Quality Management.....	3 cr.
Design and Analysis of Manufacturing Systems.....	3 cr.

### Sustainable Systems

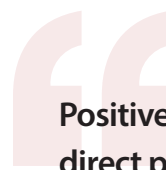
Core Competencies of Sustainability.....	3 cr.
Special Topics: Distributed Renewable Systems Design.....	3 cr.
Sustainable Approaches to System Improvement.....	4 cr.

### 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.
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.



Positively challenging. Advanced topics with direct professional applications.

Omar Saleh,  
WEC Energy Group

### College of Engineering • Interdisciplinary Professional Programs

705 Extension Building 432 North Lake Street Madison, Wisconsin 53706  
Phone: 800.462.0876 or 608.262.2061 Fax: 608.263.3160 Web: interpro.wisc.edu