

# ENGINEERING: ENGINEERING DATA ANALYTICS, M.ENG.

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### NAMED OPTION REQUIREMENTS

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
No	No	Yes	No	No

#### Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW–Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

### CURRICULAR REQUIREMENTS

#### Requirement Detail

Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	15 credits must be graduate-level coursework. Details can be found in the Graduate School's Minimum Graduate Coursework (50%) policy ( <a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a> ).
Overall Graduate	3.00 GPA required. This program follows the Graduate School's GPA Requirement policy

GPA Requirement (<https://policy.wisc.edu/library/UW-1203>) (<https://policy.wisc.edu/library/UW-1203/>).

Other Grade Requirements Must retake any courses for which a grade below C is recorded.

Assessments and Examinations No formal examination required.

Language Requirements No language requirements.

### REQUIRED COURSES

Code	Title	Credits
<b>Required (Core Courses)</b>		
<b>15</b>		
At least 15 credits from the following:		
I SY E 412	Fundamentals of Industrial Data Analytics	
I SY E/M E 512	Inspection, Quality Control and Reliability	
I SY E 603	Special Topics in Engineering Analytics and Operations Research (Topic: Applied Temporal Data Analytic)	
I SY E 649	Interactive Data Analytics	
I SY E 620	Simulation Modeling and Analysis	
L I S 751	Database Design for Information Professionals	
M E 459	Computing Concepts for Applications in Engineering	
M E/COMP SCI/ E C E 532	Matrix Methods in Machine Learning	
M E 548	Introduction to Design Optimization	
M E/COMP SCI/ E C E/E M A/ E P 759	High Performance Computing for Applications in Engineering	
<b>Electives</b>		<b>15</b>
Students choose 15 elective credits from courses numbered 300 and above within Engineering Management, Manufacturing Systems, Polymer Engineering, and Sustainable Systems Engineering in consultation with their advisor.		

**Total Credits** **30**

Students in this program may not take courses outside the prescribed curriculum without faculty advisor and program director approval. Students in this program cannot enroll concurrently in other undergraduate or graduate degree programs.