

# DATA ANALYTICS FOR ENGINEERS (DAEN), MINOR

**Requirements for Students Matriculating in or before Academic Year 2023-2024.** Learn more about University Academic Regulation 3.1 (<http://catalog.okstate.edu/university-academic-regulations/#matriculation>).

**Total Hours:** 15

**Minimum Overall Grade Point Average:** 2.50 with a grade of "C" or better in each course submitted for the minor.

Code	Title	Hours
Select at least one course from each list:		15
<b>Data Visualization</b>		
EET 3363	Data Acquisition	
ENGR 2421	Engineering Data Acquisition Controls Lab	
<b>Descriptive Analytics</b>		
IEM 3103	Probability and Statistics for Engineers I	
IEM 4723	Information Systems Design and Development	
ECEN 4233	High Speed Computer Arithmetic	
STAT 4033	Engineering Statistics	
STAT 4023	Statistical Methods II	
STAT 4091	Sas Programming	
<b>Data Analysis Tools</b>		
CHE 4753	Introduction to Applied Numerical Computing for Scientists and Engineers	
CS 3513	Numerical Methods for Digital Computers	
IEM 3713	Software Programming for Data Analytics	
IEM 4783	Applied Statistical Analysis in R for Engineers	
MATH 4513	Introduction to Numerical Analysis	
MATH 4553	Introduction to Optimization	
MATH 5553	Numerical Analysis for Linear Algebra	
MAE 3403	Computer Methods in Analysis and Design	
STAT 4191	R Programming	
STAT 4463	Statistical Machine Learning with R	
<b>Prescriptive Analytics</b>		
IEM 4013	Operations Research	
IEM 4113	Industrial Experimentation	
CHE 4002	Chemical Engineering Laboratory I	
CHE 4112	Chemical Engineering Laboratory II	
STAT 4073	Engineering Statistics with Design of Experiments	
<b>Predictive Analytics</b>		
IEM 4103	Quality Control and Reliability Analysis	
IEM 4713	Systems Simulation Modeling	
IEM 4783	Applied Statistical Analysis in R for Engineers	
STAT 4043	Applied Regression Analysis	
CHE 4493	Introduction to Molecular Modeling and Simulation	

STAT 5053 Time Series Analysis

**Total Hours**

**15**

## Additional OSU Requirements

### Undergraduate Minors

- An undergraduate minor must include between fifteen and thirty hours, inclusive of undergraduate coursework.
- A minimum of six credit hours for the minor must be earned in residence at OSU.
- The courses required for a minor may be included in the course requirements for any undergraduate degree or they may be in addition to degree requirements, depending on the overlap between the minor and degree requirements. However, an undergraduate minor must be earned in an academic field other than the student's declared degree option. The minor may not duplicate the degree major or option (for example, a student who earns a BA in Art with an Art History option may earn a minor in Studio Art but not Art History).
- A student generally follows the minor requirements associated with his or her matriculation year or newer requirements that have been established since matriculation. The time limit for following requirements from a given academic year is six years.

For additional information on requirements on minors, click here (<https://adminfinance.okstate.edu/site-files/documents/policies/requirements-for-undergraduate-and-graduate-minors.pdf>).