

# MS IN APPLIED DATA SCIENCE AND DATA ANALYTICS

**Home Department:** Computer Science

This program is also available through Kettering University Online.

Availability of unprecedented amounts of data and emerging scalable technologies are changing the way we make decisions. Data Science and Data Analytics are the study of collecting, maintaining, processing and communicating intelligent insights about complex data and applying these insights to various endeavors ranging from healthcare to marketing. The professional Master of Science in Applied Data Science and Data Analytics program is a multi-disciplinary program designed to create tomorrow's leading applied data scientists and analysts.

MS in Applied Data Science and Data Analytics is an interdisciplinary program which is a fusion of statistical and computing technologies with business and engineering applications. Technology courses include Data Mining, Machine Learning, Cloud Computing, and Data Visualization. Application courses include Managerial Sciences, Supply Chain Management, and Enterprise Resource Planning with future applications-related courses in the future. Students will have the option to work with faculty on a research project, on an internship with one of our co-op partners, or a capstone project in Applied Data Science and Data Analytics.

The program also features a Special Topics course to address the ever changing current issues and techniques in Data Science and Data Analytics. Potential Special Topics courses include data science applications in Advanced Mobility, Security and Privacy in Data Science and Deep Learning.

In addition to completing this program as a traditional MS degree, the student may take advantage of the unique 'stacked credentials' structure that is also available. The program has two introductory certificates that may be earned first. Then the student can complete the remaining four courses to complete the MS in Applied Data Science and Data Analytics degree. The two certificates that may be earned on the path to earning this MS degree are:

- Foundations in Data Science
- Core Technologies for Data Science and Data Analytics

Note these certificates should be completed in the order provided here. If students are interested in further tailoring their educational experience, there is a third certificate that can be completed by selecting the appropriate Management elective in the program. That certificate is:

- Data Analytics

Code	Title	Credit Hours
COMM-601	Communicating about Data	4
CS-641	Foundations of Data Science	4
CS-665	Information Retrieval and Data Mining	4
CS-682	Machine Learning	4
MATH-650	Statistical Methods for Data Science	4
MGMT-623	Data Analytics	4
Select at least one of the following:		4

CS-601	Programming Methods for Data Science	
CS-651	Cloud Computing: Architecture & Applications	
CS-661	Database Systems	
CS-691	Data Science Special Topics	
Select no more than two of the following:		8 or 4
IME-654	Enterprise Resource Planning	
MGMT-625	Digital Strategy and Competitive Advantage	
MGMT-629	Management Science	
SCM-610	Foundations Supply Chain Management	
Select one of the following (CS-695 must be elected twice, and CS-693 may be selected twice):		4 or 8
CS-690	Data Science Capstone Project	
CS-693	Internship in Data Science	
CS-695	Thesis in Data Science	
<i>Credit Hours Subtotal:</i>		<b>40</b>
<b>Total Credit Hours</b>		<b>40</b>