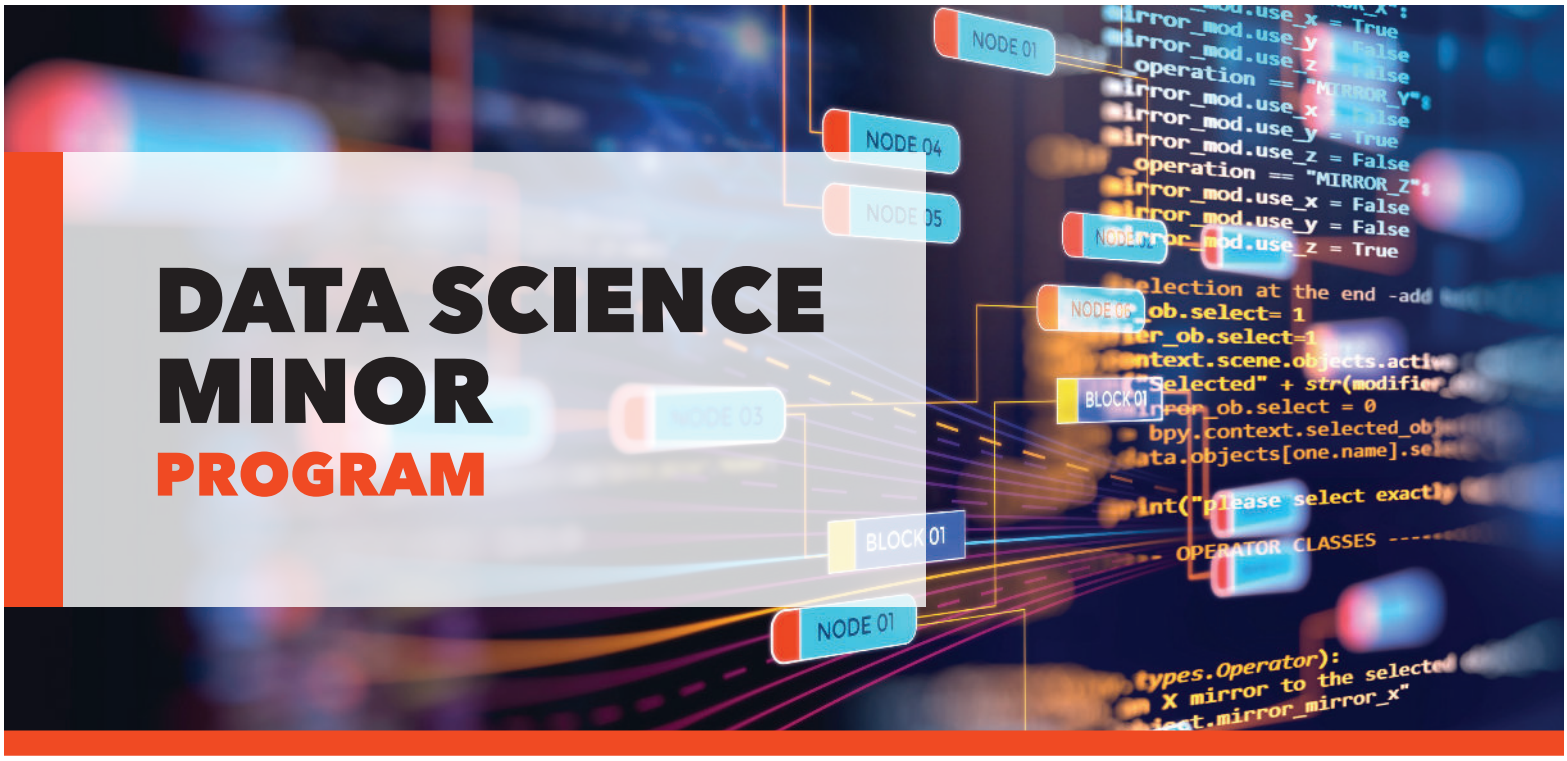

DATA SCIENCE MINOR PROGRAM

HOW TO BECOME A DATA SCIENTIST

Data scientists typically need at least a bachelor's degree in mathematics, statistics, computer science, or a related field to enter the occupation.

Because data science involves the use of algorithms and statistical techniques, students need extensive study in mathematics and statistics. High school students interested in becoming data scientists should take classes in subjects such as algebra, statistics, and computer programming.

At the college level, courses in processing and analyzing data are important in addition to math and statistics. Students must learn data-oriented programming languages as well as statistical, database, and other software for presenting analyses.

TOTAL COURSE CREDIT HOURS REQUIRED: 12

COURSE NO.	TITLE	CREDIT HOURS	PREREQUISITES
STAT 3000	Statistics Using R Programming	3	MATH 1020/1050/1100/1120/1150 or STAT 2670
Select three from the following:			
STAT 4500	Machine Learning	3	STAT 3000
STAT 4160	Productivity Tools	3	STAT 3000
STAT 4170	Data Wrangling	3	STAT 3000
STAT 4150	Data Visualization	3	STAT 3000

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WHAT DOES A DATA SCIENTIST DO?

Data scientists develop algorithms (sets of instructions that tell computers what to do) and models to support programs for machine learning. They use machine learning to classify or categorize data or to make predictions related to the models. Data scientists also must test the algorithms and models for accuracy, including for updates with newly collected data.

Data scientists often use data visualization to present their findings as charts, maps, and other graphics. Visualization techniques allow data scientists to clearly communicate their analyses to technical and nontechnical audiences, including colleagues, managers, and clients. Ensuring that audiences understand the information helps data scientists make recommendations for business decisions or process changes based on the results of their analysis.

MEAN HOURLY WAGE	MEAN ANNUAL WAGE
$52.24	$108,660

JOB OUTLOOK

Employment of data scientists is projected to grow 36 percent from 2021 to 2031, much faster than the average for all occupations.

PERCENTILE	10%	25%	50%	75%	90%
Hourly Wage	$28.57	$37.32	$48.52	$62.87	$80.31
Annual Wage	$59,430	$77,620	$100,910	$130,770	$167,040

WHY STUDY DATA SCIENCE AT AUM?

STATE-OF-THE-ART
Students are trained using state-of-the-art software such as Python and R.

RIGOROUS AND HANDS-ON EXPERIENCES
Topics include theoretical foundations and modern real-world applications.

SMALL CLASS SIZES
Most classes have no more than 25 students allowing close supervision and networking with faculty.

PROFESSIONAL DEVELOPMENT
Math Club; Pre-Engineering Club

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CAREER PROSPECTS

Emily Cosgrove
B.S. Mathematics and Computer Science double major 2019, software engineer II at EBSCO Information Services.

Eddie Lyndsey
B.S. Mathematics and Computer Science double major 2017, software engineer at Parsons Corporation.

Blake Boswell
B.S. Mathematics 2008, principal data scientist at Cornerstone Research.

Jordan Price
B.S. Mathematics and Computer Science double major 2016, sales engineer at Daxko.

Johnathan Henson
B.S. Mathematics 2008, principal software engineer at Amazon.