BIG DATA ANALYTICS CERTIFICATE

The Big Data Analytics (BDA) certificate is designed to provide students with the tools necessary to compete in the Big Data space. Students will use big data tools that are currently available to capture, analyze, and present big data. They will explore a variety of applications with which Big Data tools can be applied, and they will complete a Big Data project. This certificate is currently aimed at students majoring in business, computer science, or mathematics.

Post-secondary Certificate - Big Data Analytics

Summary

Code	Title	Hours
	Big Data Analytics Certificate Foundational Course	3
	Big Data Analytics Certificate Elective Courses	6
	Big Data Analytics Certificate Capstone Course	3
Total Hours		**12**

Degree Specific Credits: 12

Required Cumulative GPA: 3.0

Notes:

- All students pursuing a Big Data Analytics Certificate must also complete the degree requirements for a UM major.
- The 3.0 GPA requirement pertains specifically to the 12 credits required for this certificate, not a student's cumulative GPA.
- Please meet with a Big Data Analytics Certificate Advisor for assistance (Computer Science and Mathematics majors contact their department; all others contact COB Advising).
- Complete the Big Data Analytics certificate application (available from the COB advising office).

Big Data Analytics Certificate Foundational Course

Note: See individual course descriptions in the catalog for additional grade and prerequisite requirements.

Code	Title	Hours
Complete the following course:		
BMIS 326	Introduction to Data Analytics	3
Total Hours		**3**

Minimum Required Grade: C-

Big Data Analytics Certificate Elective Courses

Code	Title	Hours
Complete six credits from the following courses:		**6**
BMIS 465	Introduction to Real-time Data Analytics	
BMKT 440	Marketing Analytics	
CSCI 444	Data Visualization	
CSCI 447	Machine Learning	
CSCI 448	Pattern Recognition	
CSCI 464	Applications of Mining Big Data	
CSCI 480	Applied Parallel Computing Techniques	
CSCI 564	Applications of Mining Big Data	
CSCI 580	Applied Parallel Computing Techniques	
M 461	Data Science Analytics	
M 462	Theoretical Basics of Big Data Analytics and Real Time Computation Algorithms	
Total Hours		**6**

Minimum Required Grade: C-

Big Data Analytics Certificate Capstone Course

Code	Title	Hours
Complete one of the following courses:		
BMIS 482	Big Data Project	3
or M 467	Data Science Projects	
Total Hours		**3**

Minimum Required Grade: C-