

Data Analytics (AS)

60 Credits

This degree provides an introduction to data science by combining the tools of basic statistics, computer programming, and mathematical analysis with foundational concepts from a specific domain area. It will give students sufficient knowledge to enter the job market and to transfer credits to a baccalaureate program at a four-year institution.

Core Courses – 33-35 Credits

Completion of this degree is dependent upon a grade of C or higher in each of the following courses:

CSCI 1111	Introduction to Programming in C	4 cr
CSCI 2001	Computer Programming Concepts	4 cr
CSCI 2002	Algorithms and Data Structures	4 cr
COMT 1181	Database Management Systems	3 cr
DSCI 2000	Foundations of Data Science	3 cr
MATH 2080	Statistical Modeling	3 cr

Complete one of the following three courses:

MATH 1080	Introduction to Statistics	4 cr
MATH 1090	STATWAY Statistics 2	4 cr
MATH 1095	STATWAY Statistics: Accelerated	4 cr

Complete two of the following MATH courses grouped as follows:

MATH 1100	College Algebra	4 cr
MATH 1400	Survey of Calculus	4 cr

Or

MATH 1500	Pre-Calculus	5 cr
MATH 1510	Calculus 1	5 cr

Additional Required Courses – 25-27 Credits

ENG 1101	College Writing	4 cr
ECON 2201	Principles of Microeconomics	3 cr

Complete one of the following three courses:

COMM 1100	Introduction to Communication	3 cr
COMM 1101	Fundamentals of Public Speaking	3 cr
COMM 1111	Interpersonal	3 cr

Communication

Complete a minimum of six additional credits from at least two of the following MnTC Goals: (6 Credits)

3, 6, 7, 8 or 10.

Complete additional courses to reach 60 college level credits total (9-11 Credits)

Suggested Domain Specialization Areas listed below.

Other Degree Requirements

- Earn a minimum cumulative grade point average (GPA) of 2.0 for college-level coursework (courses numbered 1000 and above) completed at Normandale.
- Earn a minimum of 15 college-level credits at Normandale.

Coursework in this degree program satisfies a portion of the Minnesota Transfer Curriculum (MnTC). Please see MnTC Degree Audit Report.

Sample Domain Specialization Areas for the AS in Data Analytics

The domain specialties below represent a few possible areas of interest. Students should consult with faculty and advisors, including those at possible transfer institutions, for further information.

Bioinformatics:

BIOL 1501	Principles of Biology 1	5 cr
CHEM 1020	Introductory Chemistry	4 cr
PHIL 1180	Biomedical Ethics	3 cr
ENG 2102	Business and Technical Writing	3 cr

Finance:

ACCT 2251	Financial Accounting	4 cr
ACCT 2254	Introduction to Management Information Systems	4 cr
ECON 2202	Principles of Macroeconomics	3 cr
PHIL 1170	Business Ethics	3 cr
ENG 2102	Business and Technical Writing	3 cr

Law Enforcement/Government:

PSYC 1110	Introduction to Psychology	4 cr
SOC 1106	Social Problems	3 cr
SOC 2130	Introduction to Criminal Justice	3 cr

ENGC 2102	Business and Technical Writing	3 cr
Marketing:		
ACCT 2254	Introduction to Management Information Systems	4 cr
BUSN 2400	Principles of Marketing	3 cr
ECON 2202	Principles of Macroeconomics	3 cr
PHIL 1170	Business Ethics	3 cr
ENGC 2102	Business and Technical Writing	3 cr
Mathematics:		
GEOG 1050	Maps and Mapping	3 cr
PHIL 1140	Environmental Ethics	3 cr
	Or	
GEOG 1104	Resources, Society and Environment	3 cr
MATH 1520	Calculus 2	5 cr
MATH 2400	Probability and Statistics with Calculus	4 cr

Others:

Students can also develop other domain specialization areas in consultation with their advisor and faculty.