Data Science Concentration

Degree Type
Associate in Arts

Data science is transforming industries. Students in the Data Science A.A. concentration will learn the foundational skills necessary to investigate, analyze and present conclusions on data in areas such as health care, energy, and transportation.

Requirements

First Semester

Item #	Title	Credits
ENL101	English Composition I	3
MAT240	Calculus I	4
DAT101	Introduction to Data Science	3
MAT150	Elementary Statistics	3
	Behavioral & Social Sciences	3

Second Semester

Item #	Title	Credits
ENL102	English Composition II	3
MAT250	Calculus II	4
CSC105	Computer Programming I: Python	3
	Humanities & Fine Arts	3
	Behavioral & Social Sciences	3

Third Semester

Item #	Title	Credits
CSC110	Computer Programming I: Java	3
PHY211	University Physics I	4
CIT251 (BIT251)	SQL & SQL Server for Developers	3
MAT245	Linear Algebra	3

Fourth Semester

Item #	Title	Credits
	CSC130 or ENR110	3-4
PHY212	University Physics II	4
DAT201	Data Visualization	3
	Humanities & Fine Arts	3
	STEM elective	3-4
	Total Credits	**61-63**

Career Outlook

Job prospects in data science are excellent due to high salaries and high job growth. According to Glassdoor, data scientist ranks as the third-best job in America for 2022, and the U.S. Bureau of Labor Statistics estimates significant growth for jobs in this field over the next 10 years.

See also: What can I do with this major?

Program Outcomes

- Students will be able to effectively analyze data using various tools and techniques, including statistical methods, data visualization, and machine learning algorithms.
- Students will be able to collect, clean, and manage data from various sources, ensuring data quality and integrity.

- Students will be proficient in programming languages commonly used in data science, such as Python, R, or SQL. They should be able to write scripts to automate data processing tasks and build data models.
- Students will be able to effectively communicate data insights using data visualization techniques and clear, concise language.
- Students will have a solid understanding of ethical and legal considerations in data science, including issues related to privacy, security, and intellectual property.

Note: The Associate in Arts degree does not indicate a specialized degree in a concentration. Students who complete this concentration will satisfy the requirements of MassTransfer. For additional information pertaining to degree requirements, please refer to Degree Requirements.