**Nebraska Wesleyan University**

# Data Analytics (B.A., B.S.)

## Catalog

2023-2024

## Program Description

The Data Analytics major brings together skills in computer programming, quantitative reasoning, collaboration, communication, and creative thinking. Students who pursue this major will develop a broad technological toolkit for obtaining, analyzing, and visualizing data. By applying their skills to projects and internships, students will acquire flexible problem-solving skills for rapidly-changing professional environment.

Academically equivalent, both bachelor of arts and bachelor of science degrees will fully prepare you for a career in data analytics. If you choose to graduate with two majors, and the one major is only offered as a B.A. or B.S., the second major should match the first degree.

## Departments

1. Mathematics and Computer Science

### Data Analytics Major (B.A. or B.S.**, 40-42 hours)

| Technical Foundations | 22 hours |
|---|---|
| CMPSC 1100 Python Programming I | 4 hours |
| DATA 1200 Excel and SQL Programming | 4 hours |
| CMPSC 2100 Python Programming II | 4 hours |
| DATA 1300 Foundations of Data Analytics I* | 3 hours |
| DATA 1400 Foundations of Data Analytics II* | 3 hours |
| DATA 3100 Data Visualization With R | 4 hours |
| **Statistics** | **2-4 hours** |
| Take one of the following:<br>• BUSAD 2100 Business and Economic Statistics<br>• MATH 1300 Statistics<br>• MATH 3300 Mathematical Statistics I<br>• POLSC 2000 Introduction to Political Science Statistics<br>• PSYCH 2100 Psychological Statistics<br>• SOC 2910 Social Statistics | 2-4 hours |
| **Communication** | **4 hours** |
| Take one of the following:<br>• COMM 4100 Communication in the Professions<br>• COMM 3200 Persuasive Communication<br>• COMM 3800 Communication through Dialogue | 4 hours |
| **Concentration (Choose one)** | **6 hours** |

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|---|---|
| Advanced Data Analytics | 3 hours |
| • DATA 3200 Principles and Techniques of Data Analytics I* | 3 hours |
| • DATA 3300 Principles and Techniques of Data Analytics II* | |
| Business | 3 hours |
| • BUSAD 3100 Managing Information Systems | 3 hours |
| • BUSAD 3300 Quantitative Methods | |
| Project Management | 3 hours |
| • BUSAD 1650 Introduction to Project Management* | 3 hours |
| • BUSAD 2550 Project Planning* | |
| Cybersecurity | 3 hours |
| • DATA 1700 Introduction to Cybersecurity* | 3 hours |
| • DATA 2700 Cybercrime and Governance* | |
| Supply Chain Management | 3 hours |
| • DATA 2200 Forecasting And Logistics* | 3 hours |
| • DATA 2300 Sourcing and Operations* | |
| Computer Science | 3 hours |
| • CMPSC 3000 Data Structures* | 3 hours |
| • CMPSC 4000 Algorithms* | |
| **Experiential Learning Capstone** | **6 hours** |
| DATA 4970 Internship | 3 hours |
| DATA 4980 Capstone Project | 3 hours |

*This course is offered remotely via NWU's partnership with a Consortium. The partnership allows students to earn NWU credit for specific courses. Classes are designed by top academics and industry leaders, vetted by NWU, and taught by experts in the field.

***A Data Analytics major may earn either a B.A. or B.S. degree. However, if a student has a first major that is associated with a different baccalaureate degree, the Data Analytics major may serve as a second major for the degree associated with the first major (B.FA., B.M., B.S.N.).*