Major:

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

Departments/Programs:

Mathematics and Computer Science

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.

Data Analytics Major (B.A. or B.S.**, 38-39 hours)

Technical Foundations	20 hours
CMPSC 2200 Python Programming I	4 hours
CMPSC 3200 Python Programming II	4 hours
DATA 1200 Excel and SQL Programming	4 hours
DATA 1350 Introduction To Data Analytics	4 hours
DATA 3100 Data Visualization With R	4 hours
Concentration (Choose one)	**6 hours**
Advanced Data Analytics	
• DATA 3200 Principles and Techniques of Data Analytics I*	3 hours
• DATA 3300 Principles and Techniques of Data Analytics II*	3 hours
Business	
• BUSAD 3100 Managing Information Systems	3 hours
• BUSAD 3300 Quantitative Methods	3 hours
Project Management	
• BUSAD 1650 Introduction to Project Management*	3 hours
• BUSAD 2550 Project Planning*	3 hours
Cybersecurity	
• DATA 1700 Introduction to Cybersecurity*	3 hours
• DATA 2700 Cybercrime and Governance*	3 hours
Supply Chain Management	
• DATA 2200 Forecasting And Logistics*	3 hours
• DATA 2300 Sourcing and Operations*	3 hours

Concentration (Choose one)	6 hours
Computer Science	
• CMPSC 3000 Data Structures*	3 hours
• CMPSC 4000 Algorithms*	3 hours
Other	
Students may propose an alternate concentration in an area of their interest relevant to data analytics. The proposed concentration must be comprised of two courses representing at least six credits of study and must be approved by their academic advisor and the department chair.	6 hours
Experiential Learning Internship	**6 hours**
DATA 4970 Internship	3 hours
Capstone	**3 hours**
DATA 4980 Capstone Project	3 hours
Supporting Program	**6 - 7 hours**
MATH 1300 Statistics	3 hours
Take one of the following:	
• BUSAD 2300 Business Communication • COMM 2400 Communication and Leadership • COMM 3200 Persuasive Communication • COMM 3800 Communication through Dialogue • COMM 4100 Communication in the Professions	3 - 4 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.).*