Data Science

Department Information

- **Program Contacts:**
  Simone Ludwig, Ph.D.; Rhonda Magel, Ph.D.
- **Email:**
  simone.ludwig@ndsu.edu; rhonda.magel@ndsu.edu
- **Department Web Site:**
  https://www.ndsu.edu/data_science/
- **Credential Offered:**
  M.S.
- **English Proficiency Requirements:**
  TOEFL ibt 79; IELTS 6.5; Duolingo 105

Our master's degree program is designed to equip you with advanced skills for success in today's data-driven world. This strategic program seamlessly blends statistics and computer science, providing a deep understanding of data analysis, predictive modeling, and machine learning techniques while establishing a robust foundation in statistical methodologies and computational proficiency. Navigate data collection, interpretation, and cleaning intricacies, simultaneously mastering programming languages and tools crucial for efficient data manipulation and analysis. Through a specialized focus on statistics, you'll gain the expertise to extract valuable insights from complex datasets, make informed data-driven decisions, and expertly communicate findings to diverse audiences. By harmoniously merging statistics and computer science, this program empowers you to tackle real-world challenges using the power of data. Whether your ambitions gravitate towards data science, machine learning, or business analysis, our flexible master's degree, enriched by the guidance of experienced faculty from two departments, opens doors to opportunities in the dynamic landscape of data science.

Degree Requirements

Code	Title	Credits
DATA 720	Programming for Data Science	3
DATA 622		3
DATA 761	Applied Machine Learning	3
DATA 765	Applied Database Systems	3
DATA 787	Data Science Ethics	3
DATA 711	Basic Computational Statistics using R	3
DATA 713	Introduction to Data Science	3
DATA 725	Applied Statistics	3
DATA 726	Applied Regression and Analysis of Variance	3
Electives - 6 credits required		6
DATA 760	Applied Artificial Intelligence	
DATA 660		
DATA 662		
DATA 650		
DATA 706	Data-Driven Security	
DATA 714	Statistical Big Data Visualization	
Total Credits		**33**