

MASTER OF SCIENCE IN APPLIED DATA SCIENCE

Academic Programs

Data Science focuses on the knowledge and skills required to analyze large, complex data sets in the context of real-world problems, applying industry-specific tools that generate actionable intelligence for decision-making. Communication of the results using advanced visualization applications is considered a core competency.

Program Requirements

Students must complete 30 credits hours of graduate coursework to earn a Master of Science in Applied Data Science.

Students must select one of the following concentrations:

- Data Science Generalist Concentration, MS (<https://catalog.baypath.edu/graduate/academic-programs/master-science-applied-data-science/data-science-generalist-concentration-ms/>)
- Data Science Specialist Concentration, MS (<https://catalog.baypath.edu/graduate/academic-programs/master-science-applied-data-science/data-science-specialist-concentration-ms/>)

Student Learning Outcomes

Graduates of the M.S. in Applied Data Science program are expected to demonstrate achievement in all areas of the program. Specifically, graduates of the M.S. program are expected to:

- Apply mathematical principles to the analysis of data.
- Analyze very large data sets in the context of real world problems.
- Develop and implement data analysis strategies based on theoretical principles, ethical considerations, and detailed knowledge of the underlying data.
- Demonstrate an ability to articulate, assess and apply appropriate theories and principles of information management.
- Demonstrate presentation proficiency for written, oral and visual communications in the contest of traditional and digital forms of communication.
- Demonstrate knowledge of the underlying principles and evaluation methods for analyzing information for financial decision-making, investing capital, budgeting and forecasting.
- Demonstrate an understanding of the interdisciplinary nature of data, information and communications and its influence on incremental and disruptive innovation.
- Demonstrate an understanding of appropriate research methods used to collect and analyze data for decision-making and communications; inclusive of traditional and digital forms of communication.
- Demonstrate an understanding of cultural and global perspectives as they apply to all forms of enterprise, the management of information, and communications with a wide range of stakeholders.
- Articulate and evaluate appropriate legal and ethical standards pertaining to all forms of communications and network security.