

Specialization

Data Science

This specialization develops your ability to find, manage, analyze, and model real-world data using Python and R, transforming large datasets into meaningful insights and visualizations. The Data Science specialization consists of three required courses.

Total Units: 9

Learning Outcomes:

- Develop complex functions and scripts to perform complicated calculations to solve engineering, financial, mathematical, and scientific problems and visualize the results of these calculations.
- Install and configure Python and essential Python development tools and write programs to perform data analysis, statistical analysis, learning, and AI techniques.
- Manage and manipulate data, perform data type conversions, merge datasets, deal with missing values, and extract, delete, or transform subsets of data based on logical criteria.
- Discuss the importance of data analysis for data science, data visualization, and exploration.



*Courses may have prerequisites; review the course page before enrolling. A checkmark indicates the course is typically offered during that term.**

Required Courses

8 Units | 3 Courses

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Data Analysis, Introduction DBDA.X404	3.0	✓	✓	✓	✓
Python for Data Analysis DBDA.X420	3.0	✓	✓	✓	✓
Dashboards and Data Visualization DBDA.X419	3.0		✓		✓

Completion Review

Once all specialization requirements have been met and your final grades are posted, please access your Student Portal to enroll in the "[Specialization in Data Science Completion Fee](#)" to begin the review process. Please allow 4-6 weeks to receive your certificate.