

Specialization

Machine Learning with Python

This specialization prepares you to leverage Python and machine learning techniques to drive innovation, enhance decision-making, and implement AI-powered solutions. The Machine Learning with Python specialization consists of two required courses.

Total Units: 6

Learning Outcomes:

- Develop and deploy Python scripts for data manipulation, statistical analysis, and machine learning tasks.
- Implement Python-based algorithms for machine learning applications, including regression, classification, clustering, and neural networks.
- Identify and formulate machine learning problems, applying both supervised and unsupervised learning techniques.
- Evaluate the performance of machine learning models using cross-validation and practical datasets, interpreting results to improve model accuracy and efficiency.



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

Required Courses

6 Units | 2 Courses

| COURSE NAME & NUMBER | UNITS | FALL | WINTER | SPRING | SUMMER |
|---|-------|------|--------|--------|--------|
| Python for Machine Learning DBDA.X427 | 3.0 | ✓ | ✓ | | ✓ |
| Introduction to Machine Learning AISV.X400 | 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 Machine Learning with Python Completion Fee"](#) to begin the review process. Please allow 4-6 weeks to receive your certificate.

Note: We recommend you have strong programming and debugging skills beyond the beginner level and are comfortable with basic algebra, calculus, probability, and statistics.