

# DATA SCIENCE

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The Data Science certificate prepares students to apply Python programming to perform data science tasks, break down business problems into actionable data, apply machine learning methods to build a model, and implement end-to-end data science processes. Students will learn key job skills to perform Data Engineer role in any industry.

## Certificate Offered

- Data Science, Certificate (<https://catalogs.northwestern.edu/sps/certificates/post-baccalaureate/data-science/data-science-certificate/>)

## Data Science Courses

### CIS 323-DL Python for Data Science (1 Unit)

Introduction to data science concepts, techniques, and tools with an emphasis on building practical business applications. May not be audited or taken P/N.

**Prerequisite:** CIS 110-DL.

### CIS 324-DL Applied Data Science (1 Unit)

Introduction to data science concepts, techniques, and tools with an emphasis on building practical business applications. May not be audited or taken P/N.

**Prerequisite:** CIS 323-CN or equivalent.

### CIS 325-DL Enterprise Data Science (1 Unit)

Overview of enterprise data science tools, processes, and environment. Application of data science and machine learning techniques in an enterprise environment.

**Prerequisite:** CIS 324-CN or CIS 324-DL.

### CIS 326-DL Data Engineering (1 Unit)

Overview of the discipline of data engineering. Its tools and ecosystem.

**Prerequisite:** CIS 317-CN or equivalent, or knowledge of SQ.