Data Science and Data Analytics

This program provides you with the skills to thrive in data science and analytics by offering focused tracks in data science and data engineering, allowing you to drive data-informed decisions and oversee large-scale databases in a Big Data environment. The Data Science and Data Analysis program consists of two tracks, each with two required courses and four elective courses.

Total Units: 16

Completion Time: 9-12 months (full-time)

Modality: Online, in person, or choose a mix of both.

Special Programs: F-1 Compliant and WIOA/TAA Funding Approved.

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

Track 1: Data Science

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Big Data, Introduction DBDA.X401	3.0	✓	✓	✓	✓
Data Analysis, Introduction DBDA.X404	3.0	✓	✓	✓	✓

Track 2: Data Engineering

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Big Data, Introduction DBDA.X401	3.0	✓	✓	✓	✓
Relational Database Design and SQL Programming DBDA.X415	3.0	✓	✓	✓	✓

Elective Courses

10 Units | Choose 4 Courses

Track 1: Data Science

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Relational Database Design and SQL Programming DBDA.X415	3.0	✓	✓	✓	✓
Introduction to Machine Learning AISV.X400	3.0	✓	✓	✓	✓
Python for Machine Learning DBDA.X427	3.0	✓	✓		✓
Python for Data Analysis DBDA.X420	3.0	✓	✓	✓	✓
Data Modeling, Introduction DBDA.X421	2.0		✓		✓
Business Intelligence Solutions DBDA.X402	3.0	✓	✓	✓	✓
Dashboards and Data Visualization DBDA.X419	3.0		✓		✓
Deep Learning and Artificial Intelligence AISV.X401	3.0	✓	✓	✓	✓

*Scheduling is subject to change at any time by UCSC Silicon Valley Extension.
Please visit our website for all current course offerings.
FY 2024-2025

Contact Us:
extension@ucsc.edu

Track 2: Data Engineering

COURSE NAME & NUMBER	UNITS	FALL	WINTER	SPRING	SUMMER
Data Analysis, Introduction DBDA.X404	3.0	✓	✓	✓	✓
Python for Data Analysis DBDA.X420	3.0	✓	✓	✓	✓
MySQL and Oracle Database for Developers and Designers DBDA.X409	2.0	✓		✓	
NoSQL Databases, Introduction DBDA.X410	3.0	✓		✓	
Hands-On Data Engineering DBDA.X424	3.0		✓		✓
The Internet of Things: Big Data Processing and Analytics EMBD.X412	3.0	✓		✓	

Completion Review

Once all certificate requirements have been met and your final grades are posted, please access your Student Portal to enroll in the "Certificate Completion Fee" to begin the review process. Please allow 4-6 weeks to receive your certificate.