Data Engineering

This specialization strengthens your ability to build and manage complex data systems, from structured databases to large-scale and connected data environments. The Data Engineering specialization consists of three required courses.

Total Units: 8

Learning Outcomes:

- Describe a business or other activity in terms suitable for defining a relational database for that activity.
- Compile the SQL code needed to create a database, as well as to insert, access, and update the information in the database.
- Identify different strategies used for improving database performance through databases indexes, optimizer, explain plan, and database hints.
- Discuss the inner workings of Hadoop's computing framework, including MapReduce processing and Hadoop's file system (HDFS).

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
Relational Database Design and SQL Programming DBDA.X415	3.0	✓	✓	✓	✓
MySQL and Oracle Database for Developers and Designers DBDA.X409	3.0	✓			
Hands-On Data Engineering DBDA.X424	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 Engineering Completion Fee" to begin the review process. Please allow 4-6 weeks to receive your certificate.

*Scheduling is subject to change at any time by UCSC Silicon Valley Extension.
Please visit our website for all current course offerings.
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Contact Us:
extension@ucsc.edu