

DATA SCIENCES AND OPERATIONS

(FALL 2024)

DSO 435 – Enterprise Data Architecture
Section(s) – 001-16230R

Professor

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Email

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When

MW 12:00:-1:50

Office

BRI 400B

Units

4



WHY TAKE THIS COURSE?

This course will prepare the student for a world and a job market where data is one of the most important business and knowledge assets. The student will become **proficient in SQL**, one of the most popular data analysis languages, and will get comfortable with fundamental concepts and tools in data modeling, data management and data analyses.

COURSE OBJECTIVES

The objective of this course is to provide the prospective business, analytics, or IT professional with fundamental concepts and competitive skills in modeling, managing and analyzing an organization's data to support business applications.

KEY CONCEPTS

SQL (Structured Query Language)
Data Modeling (conceptual, logical and physical)
Entity Relationship Diagrams
Transactions
Database and Query Optimization

COURSE DESCRIPTION

Data is arguably one of the most important assets an organization possesses, in our era. Enterprise-wide data management and analysis is a core business requirement for any successful organization. Complete, real-time, high-integrity and easily accessible data is necessary for most business operations including Data Analytics (DA), Business Intelligence (BI), Machine Learning and tailoring customer experiences with time-relevant, personalized data. This course is motivated by a recognition of the importance of efficient and effective enterprise-wide data storage, data management and data analysis.