

**FALL
2025**

DATA SCIENCES + OPERATIONS

DSO 552

SQL DATABASES FOR BUSINESS ANALYTICS

Section(s): 16266

Saturday | 9:00 AM – 11: 50 AM
1st Half of Semester

Instructor: Joydeep Banerjee

 joydeepb@marshall.usc.edu

Units: 1.5

Office: TBD

WHY TAKE THIS COURSE?



Structured query language (SQL) is an extremely desirable skill for anyone in today's Workforce. It's becoming increasingly common for employers to require at least a basic knowledge of SQL in professions related to finance, operations management, supply chain, banking, economics, data science and business analytics. When you apply for a business analyst position, it is very likely you will also have to answer technical questions to demonstrate your knowledge. With SQL, data analysis can be performed more efficiently. SQL allows you to better understand and interpret your company's data that could be on premise or in the cloud, and it enables you to conduct a deeper analysis of the data stored in databases. If you want to learn how database management could give you a competitive edge, then this class is for you.

COURSE OBJECTIVES



The purpose of this course is to equip students with the foundational knowledge, skills, methods, tools, and resources needed to design a database and learn how to operate and interact with databases. In this course, the students will learn the essential structure of relational databases, how to read and write simple and complex SQL statements, as well as advanced database manipulation techniques.

KEY CONCEPTS



- Modeling and Designing Database
- Entity-Relationship Model
- Database structures
- From ER Diagram to SQL Tables
- Querying a Database Using SQL
- Google Big Query

COURSE DESCRIPTION



Structured query language (SQL) is the language for databases. Databases arguably store the vast majority of the world's data. Without accurate data, companies simply can't deliver the basic services they need to provide. Databases provide fast, safe and effective means to store this information, and databases are at the core of most information. This course provides a step-by-step introduction on how to query an SQL database. You will learn how to create SQL statements for data storage, data collection, data computation and reporting.



SCHEDULE OF CLASSES