



## Learn SQL Basics for Data Science Specialization



Instructors: [Don Noxon](#) +2 more

**303,312** already enrolled

### 3 course series

Get in-depth knowledge of a subject

4.6 ★

(10,418 reviews)

### Beginner level

No prior experience required

### 2 months to complete

at 10 hours a week

### Flexible schedule

Learn at your own pace

### What you'll learn

- ✓ Use SQL commands to filter, sort, & summarize data; manipulate strings, dates, & numerical data from different sources for analysis
- ✓ Develop a project proposal & select your data, perform statistical analysis & develop metrics, and present your findings & make recommendations
- ✓ Assess and create datasets to solve your business questions and problems using SQL

### Skills you'll gain

- Peer Review    JSON    Data Lakes    Complex Problem Solving    Data Storytelling    Presentations    Database Design    Databricks    Data Analysis  
Data Visualization    Apache Spark    Distributed Computing    Data Modeling    Statistical Analysis    Data Quality    Exploratory Data Analysis    Data Governance  
Descriptive Statistics    Data Pipelines    SQL    [View less skills](#)

### Details to know



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28 languages available

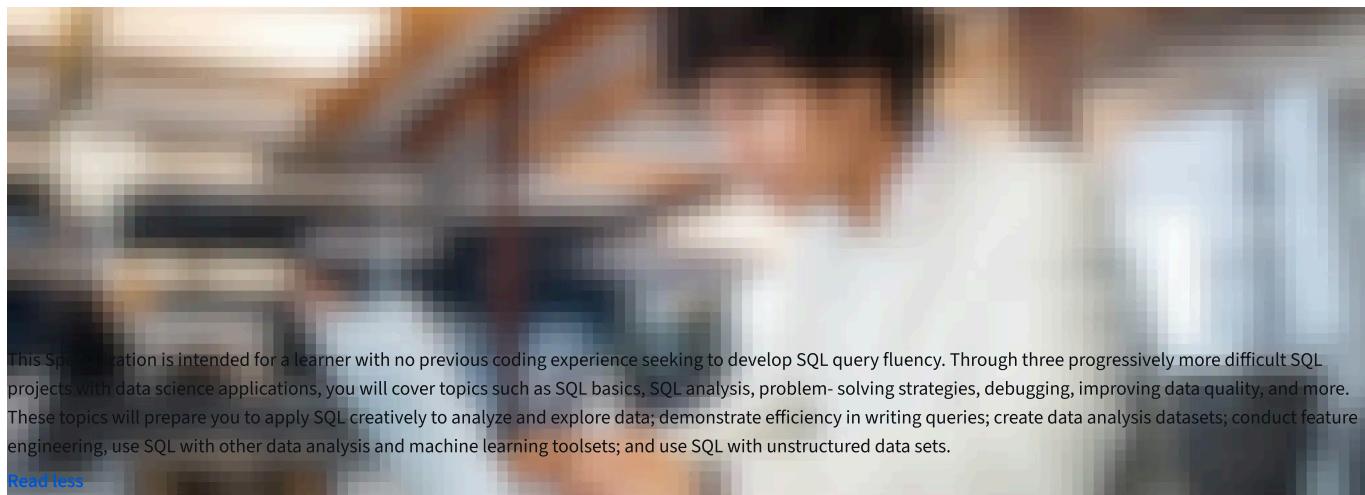


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This Specialization is intended for a learner with no previous coding experience seeking to develop SQL query fluency. Through three progressively more difficult SQL projects with data science applications, you will cover topics such as SQL basics, SQL analysis, problem-solving strategies, debugging, improving data quality, and more. These topics will prepare you to apply SQL creatively to analyze and explore data; demonstrate efficiency in writing queries; create data analysis datasets; conduct feature engineering; use SQL with other data analysis and machine learning toolsets; and use SQL with unstructured data sets.

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## [SQL for Data Science](#)

Course 1 • 15 hours

[Course details ^](#)

### What you'll learn

- ✓ Identify a subset of data needed from a column or set of columns and write a SQL query to limit to those results.
- ✓ Use SQL commands to filter, sort, and summarize data.
- ✓ Create an analysis table from multiple queries using the UNION operator.
- ✓ Manipulate strings, dates, & numeric data using functions to integrate data from different sources into fields with the correct format for analysis.

### Skills you'll gain

- [SQL](#) [Data Governance](#) [Query Languages](#) [Relational Databases](#) [Data Quality](#) [Data Modeling](#) [Data Analysis](#) [Data Manipulation](#) [Data Science](#)  
[Data Transformation](#) [Database Design](#)



## [SQL Problem Solving](#)

Course 2 • 10 hours

[Course details ^](#)

### What you'll learn

- ✓ Validate and clean a dataset
- ✓ Assess and create datasets to answer your questions
- ✓ Solve problems using SQL
- ✓ Build a simple testing framework to touch on AB Testing

### Skills you'll gain

- [SQL](#) [Data Transformation](#) [JSON](#) [Data Presentation](#) [Business Reporting](#) [Data Analysis](#) [Forecasting](#) [Data Quality](#) [Debugging](#)  
[Predictive Analytics](#) [Exploratory Data Analysis](#) [Data Visualization](#) [Complex Problem Solving](#) [Business Metrics](#)



## [SQL for Data Science Capstone Project](#)

Course 3 • 35 hours

[Course details ^](#)

### What you'll learn

- ✓ Develop a project proposal and select your data
- ✓ Perform descriptive statistics as part of your exploratory analysis
- ✓ Develop metrics and perform advanced techniques in SQL
- ✓ Present your findings and make recommendations

### Skills you'll gain

- [Data Modeling](#) [Target Audience](#) [Data Manipulation](#) [Text Mining](#) [Performance Metric](#) [Peer Review](#) [Business Analytics](#) [Descriptive Statistics](#)  
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## Instructors



**Don Noxon**  
University of California, Davis  
1 Course • 41,380 learners

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## Frequently asked questions

### ^ How long does it take to complete the Specialization?

This Specialization consists of 4 courses that could take anyone from 4-6 months to complete.

### ^ What background knowledge is necessary?

This Specialization is intended for the learner with no prior knowledge and will progress through the courses advancing their SQL skills.

### ^ Do I need to take the courses in a specific order?

We absolutely recommend you take the first course listed first and the Capstone project last, but courses two and three can be completed in either order.

### ⌄ Is this course really 100% online? Do I need to attend any classes in person?

### ⌄ Can I just enroll in a single course?

### ⌄ Is financial aid available?

### ⌄ Can I take the course for free?

### ⌄ Will I earn university credit for completing the Specialization?

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**More questions**  
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Financial aid available, [learn more](#)

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Cybersecurity	Google Data Analytics Certificate	Computer Science	Examples of Strengths and Weaknesses for Job Interviews
Data Analytics	Google IT Support Certificate	Data Science	High-Income Skills to Learn
Digital Marketing	Google Project Management Certificate	Education & Teaching	How Does Cryptocurrency Work?
English Speaking	Google UX Design Certificate	Engineering	How to Highlight Duplicates in Google Sheets
Generative AI (GenAI)	IBM Data Analyst Certificate	Finance	How to Learn Artificial Intelligence
Microsoft Excel	IBM Data Science Certificate	Healthcare	Popular Cybersecurity Certifications
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