

# Programming for Data Science Syllabus

---



## Contact Info

While going through the program, if you have questions about anything, you can reach us at [support@udacity.com](mailto:support@udacity.com). For help from Udacity Mentors and your peers visit the Udacity Classroom.

## Nanodegree Program Info

**Version:** 1.0.0

**Length of Program:** 84 Days\*

*\* This is a self-paced program and the length is an estimation of total hours the average student may take to complete all required coursework, including lecture and project time. Actual hours may vary.*

## Part 1: Welcome to the Program

Welcome to the program! In this part, you will get an orientation into using our classroom and services. You'll also get advice for making the best use of your time while enrolled in this program.

## Part 2: Introduction to SQL

Learn SQL language fundamentals such as building basic queries and advanced functions like Window Functions, Subqueries and Common Table Expressions.

### **Project: Investigate a Relational Database**

The **\*\*Sakila Movie database\*\*** is a SQL database of online DVD rentals . You will query the database to answer questions about business decisions.

## Part 3: Command Line Essentials

The Unix shell is a powerful tool for developers of all sorts. In this lesson, you'll get a quick introduction to the very basics of using it on your own computer.

## Part 4: Introduction to Python

Learn Python programming fundamentals such as data types and structures, variables, loops, and functions.

### **Project: Explore US Bikeshare Data**

Use Python to understand U.S. bikeshare data. Calculate statistics and build an interactive environment where a user chooses the data and filter for a dataset to analyze.

## Part 5: Introduction to Version Control

Learn how to use version control to save and share your projects with others.

### **Project: Post your Work on GitHub**

Use your local git repository and your GitHub repository. Fork a repository, work on files, stage files and commit them to GitHub. You will also demonstrate how to hide files using .gitignore files.

## Part 6: Congratulations and Next Steps

Congratulations on completing all projects for this Nanodegree!



Udacity

Generated Tue May 26 03:13:33 PDT 2020