

Data Foundations Syllabus



Contact Info

While going through the program, if you have questions about anything, you can reach us at enterprise-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: 51 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

Project: Interpret a Data Visualization

To get a glimpse at the tools you will be learning during this program and some areas where they are applied, this first project will tell you a few stories and give you a quick intro to each.

Part 2: Introduction to Data

Project:

In this lesson you'll learn to get started with spreadsheets: creating and saving a spreadsheet, basic operations, fill, and addressing.

Supporting Lessons

Lesson

Summary

Descriptive Statistics I

In this lesson, you will learn about data types, measures of center, and the basics of statistical notation.

Descriptive Statistics II

In this lesson, you will learn about measures of spread, shape, and outliers as associated with quantitative data. You will also get a first look at inferential statistics.

Project: Analyze Survey Data

Welcome to the second project! In this project you will use your knowledge of statistics and spreadsheets to analyze data about the students across Udacity programs.

Supporting Lessons

Lesson

Summary

Spreadsheets 2: Manipulate Data

In this lesson, you'll learn to manipulate data in a spreadsheet: formulas, functions, removing duplicate rows, splitting columns, filtering, and sorting.

Spreadsheets 3: Analyze Data

In this lesson, you'll learn to analyze data in a spreadsheet: answer questions about the data using aggregation functions, logical functions, pivot tables, and lookup tables.

Spreadsheets 4: Visualize Data

In this lesson, you'll learn to present data professionally using spreadsheets: charts, histograms, box-plots, and formatting.

Part 3: SQL for Data Analysis

Project: SQL Project

The **Chinook database** is an iTunes library representing a digital music store. You will be querying this database as a part of this project to assist the store in learning about their customers.

Part 4: Data Visualization

Sharing your analysis results is integral to working with data. Here, you'll learn how to properly design data visualizations and create interactive dashboards with Tableau.

Project: Build Data Dashboards

Supporting Lessons

Lesson

Summary

Introduction to Data Visualization

In this lesson, you will learn the main data visualizations used for univariate and bivariate analyses. As well as the visualizations that are used for when you want to compare more variables.

Design

In this lesson, you will learn about visual encodings, and best practices for building data visualizations.

Data Visualizations in Tableau

In this lesson, you will learn how to make visualizations in Tableau. Get excited - it is about to get awesome!

Making Dashboards & Stories in Tableau

In this lesson, you will learn from a Tableau expert, and start putting together your own dashboards and stories.

Part 5: Congratulations and Next Steps

Once you have completed all four of the projects, you might be wondering 'what next?'



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