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| --- | --- | --- | --- | --- | --- |
| **Pre-work** | **Phase 1 - Python, Data Analysis, SQL, Web Scraping, etc.** | **Phase 2 - Statistics / Linear Regression Modeling** | **Phase 3 - Classification Modeling / Machine Learning Fundamentals** | **Phase 4 - Advanced Machine Learning** | **Phase 5 – Capstone** |
| **Python Essentials**   * Introduction to Variables: Variable Assignment [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470899) * Introduction to Variables: Strings [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470900) * Introduction to Variables: Strings - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470901) * Introduction to Variables: Numeric Types and Booleans [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470903) * Introduction to Variables: Strings and Numeric Types - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470904) * Introduction to Variables: Variable Assignment - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470905) * Control Flow: Conditionals [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470906) * Control Flow: Conditionals - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470907) * Working with Lists [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470908) * Working with Lists - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470909) * Working With Dictionaries [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470910) * Working with Dictionaries - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470911) * Built-in Python Operators, Functions and Methods [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470912) * Built-in Python Operators, Functions, and Methods - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470913) * Python Essentials - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470914)   **Python Loops & Functions**   * Looping Over Collections [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470916) * Looping Over Collections - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470917) * While Loops, Break and Continue [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470919) * While Loops, Break and Continue - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470920) * Using Nested Loops [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470922) * Using Nested Loops - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470923) * Creating Functions [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470924) * Creating Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470925) * Functions with Arguments [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470926) * Functions With Arguments - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470927) * User Input and Output in Python [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470928) * Python Loops and Functions - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470929)   **Statistical Measures**   * Introduction to Numpy [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470930) * Getting Started with NumPy [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470931) * Getting Started with NumPy - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470932) * Measures of Central Tendency [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470933) * Measures of Dispersion [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470934) * Implementing Statistics with Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470935) * Covariance and Correlation [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470938) * Covariance and Correlation - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470939) * Statistical Measures - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470940)   **Data Visualization**   * Data Visualization [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470941) * Data Visualization - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470942) * Customizing Visualizations with Matplotlib [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470943) * Customizing Visualizations with Matplotlib - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470944) * Data Visualization - Best Practices and Common Mistakes [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470945) * Seaborn [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470946) * Seaborn - Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470947) * Data Visualization - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470948)   **Assessment**   * Prep Post-Test [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470949)   **The End!**   * You Have Completed the Prep! [[FIS]](https://learning.flatironschool.com/courses/6103/modules/items/470950) | **Topic 1: Getting Started with Data Science**   * Topic 1 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492398) * Getting Started with Data Science - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492399) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-v2-2-intro/) * The Data Science Process [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492400) [[GH]](https://github.com/learn-co-curriculum/dsc-the-data-science-process/) * Problems Data Science Can Solve [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492401) [[GH]](https://github.com/learn-co-curriculum/dsc-problems-data-science-can-solve/) * PEP8 [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492402) [[GH]](https://github.com/learn-co-curriculum/dsc-PEP8/) * Data Privacy and Data Ethics [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492403) [[GH]](https://github.com/learn-co-curriculum/dsc-data-ethics/) * Quiz: Data Science Basics [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492404) * Lecture: Data Science Environments (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492406) * Data Science Environments Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492407) * Setting up a Professional Data Science Environment - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492408) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-env-introduction/) * Setting up a Professional Data Science Environment - MacOS Installation [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492409) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-env-mac-installation/) * Setting up a Professional Data Science Environment - Windows Installation [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492410) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-env-windows-installation/) * Setting up a Professional Data Science Environment - Configuring Git and Anaconda [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492411) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-env-config/) * Running Jupyter Notebooks Locally [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492412) [[GH]](https://github.com/learn-co-curriculum/dsc-running-jupyter-locally/) * Running Jupyter Notebooks Locally - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492413) [[GH]](https://github.com/learn-co-curriculum/dsc-running-jupyter-locally-lab/) * Quiz: Professional Data Science Environment [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492414) * Getting Started with Data Science - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492415) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-v2-2-recap/)   **Orientation Quiz (Flex)**   * Orientation Quiz (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492416)   **Topic 2: Bash and Git**   * Topic 2 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492417) * Bash and Git - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492418) [[GH]](https://github.com/learn-co-curriculum/dsc-git-bash-collab-intro/) * The Bash Shell [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492419) [[GH]](https://github.com/learn-co-curriculum/dsc-bash-shell/) * Short Video: Bash [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492420) [[VIM]](https://player.vimeo.com/video/713398999) * Git Version Control 101 [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492421) [[GH]](https://github.com/learn-co-curriculum/dsc-git-version-control-101/) * Lecture: Bash and Git Introduction (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492422) [[VIM]](https://player.vimeo.com/video/681693353) * Lecture: Bash and Git Introduction (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492423) * Bash Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492424) * Getting Started with Git [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492425) [[GH]](https://github.com/learn-co-curriculum/dsc-git-intro/) * Git Practice [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492426) [[GH]](https://github.com/learn-co-curriculum/dsc-git-practice/) * .gitignore [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492427) [[GH]](https://github.com/learn-co-curriculum/dsc-gitignore/) * Quiz: Bash and Git Fundamentals [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492428) * Lecture: Git Fundamentals (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492429) [[VIM]](https://player.vimeo.com/video/681657396) * Lecture: Git Fundamentals (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492430) * Git Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492431) * Collaborating with Git Branches [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492432) [[GH]](https://github.com/learn-co-curriculum/dsc-git-branches/) * Git Merge - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492433) [[GH]](https://github.com/learn-co-curriculum/dsc-git-merge-lab/) * Git Stash - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492434) [[GH]](https://github.com/learn-co-curriculum/dsc-git-stash-lab/) * Git Resources [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492435) [[GH]](https://github.com/learn-co-curriculum/dsc-git-resources/) * Quiz: Git Collaboration [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492436) * Lecture: Git Collaboration (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492437) * Collaborating with Git Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492438) * Bash and Git - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492439) [[GH]](https://github.com/learn-co-curriculum/dsc-git-collab-recap/)   **Topic 3: Data Analysis in Base Python**   * Topic 3 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492440) * Data Analysis in Base Python - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492441) [[GH]](https://github.com/learn-co-curriculum/dsc-data-analysis-python-intro/) * Lecture: Python Data Manipulation (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492443) * Short Video: List Comprehensions and Dictionary Comprehensions [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492444) [[VIM]](https://player.vimeo.com/video/713398582) * Python Data Manipulation Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492445) * File Input and Output in Python [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492446) [[GH]](https://github.com/learn-co-curriculum/dsc-file-io/) * CSV [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492447) [[GH]](https://github.com/learn-co-curriculum/dsc-csv/) * Quiz: Data Analysis with Base Python [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492448) * Lecture: Data Analysis with CSV Files (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492449) [[VIM]](https://player.vimeo.com/video/681647013) * Lecture: Data Analysis with CSV Files (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492450) * Data Analysis with CSVs Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492451) * JSON [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492452) [[GH]](https://github.com/learn-co-curriculum/dsc-json-v2-1/) * JSON - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492453) [[GH]](https://github.com/learn-co-curriculum/dsc-json-lab-v2-1/) * Working with Known JSON Schemas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492454) [[GH]](https://github.com/learn-co-curriculum/dsc-working-with-known-json-schemas/) * Working with Known JSON Schemas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492455) [[GH]](https://github.com/learn-co-curriculum/dsc-working-with-known-json-schemas-lab/) * Exploring and Transforming JSON Schemas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492456) [[GH]](https://github.com/learn-co-curriculum/dsc-exploring-and-transforming-json-schemas/) * Exploring and Transforming JSON Schemas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492457) [[GH]](https://github.com/learn-co-curriculum/dsc-exploring-and-transforming-json-schemas-lab/) * Quiz: Data Serialization Formats [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492458) * Lecture: Data Analysis with JSON Files (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492459) [[VIM]](https://player.vimeo.com/video/681649822) * Data Analysis with JSONs Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492461) * Data Serialization Formats - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492462) [[GH]](https://github.com/learn-co-curriculum/dsc-data-serialization-lab/) * Data Analysis in Base Python - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492463) [[GH]](https://github.com/learn-co-curriculum/dsc-data-analysis-python-recap/)   **Topic 4: Data Analysis in Pandas**   * Topic 4 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492464) * Data Analysis in Pandas - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492465) [[GH]](https://github.com/learn-co-curriculum/dsc-data-analysis-pandas-intro/) * Introducing Python Libraries [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492466) * Accessing Data within Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492467) [[GH]](https://github.com/learn-co-curriculum/dsc-accessing-data-with-pandas/) * Accessing Data within Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492468) [[GH]](https://github.com/learn-co-curriculum/dsc-accessing-data-with-pandas-lab/) * Quiz: Pandas Fundamentals [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492469) * Importing Data Using Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492470) [[GH]](https://github.com/learn-co-curriculum/dsc-importing-data-using-pandas/) * Importing Data Using Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492471) [[GH]](https://github.com/learn-co-curriculum/dsc-importing-data-using-pandas-lab/) * Understanding Pandas Series and DataFrames [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492472) [[GH]](https://github.com/learn-co-curriculum/dsc-pandas-series-and-dataframes/) * Understanding Pandas Series and DataFrames - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492473) [[GH]](https://github.com/learn-co-curriculum/dsc-pandas-series-and-dataframes-lab/) * Statistical Methods in Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492474) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-methods-in-pandas/) * Statistical Methods in Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492475) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-methods-in-pandas-lab/) * Kaggle and The Ames Housing Dataset [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492476) [[GH]](https://github.com/learn-co-curriculum/dsc-kaggle-and-boston-housing-dataset/) * Pandas DataFrames Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492479) * Data Visualization with Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492480) [[GH]](https://github.com/learn-co-curriculum/dsc-data-visualization-with-pandas/) * Quiz: Data Analysis with Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492481) * Lecture: Data Visualization (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492482) [[VIM]](https://player.vimeo.com/video/681636661) * Short Video: Basic Plotting with MatPlotLib [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492484) [[VIM]](https://player.vimeo.com/video/713398853) * Data Visualization Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492485) * EDA with Pandas - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492486) [[GH]](https://github.com/learn-co-curriculum/dsc-pandas-eda-lab/) * Data Analysis in Pandas - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492487) [[GH]](https://github.com/learn-co-curriculum/dsc-data-analysis-pandas-recap/)   **Topic 5: Data Cleaning in Pandas**   * Topic 5 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492488) * Data Cleaning in Pandas - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492489) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-pandas-etl/) * Lambda Functions [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492490) [[GH]](https://github.com/learn-co-curriculum/dsc-lambda-functions/) * Lambda Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492491) [[GH]](https://github.com/learn-co-curriculum/dsc-lambda-functions-lab/) * Dealing with Missing Data [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492492) [[GH]](https://github.com/learn-co-curriculum/dsc-dealing-missing-data/) * Dealing with Missing Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492493) [[GH]](https://github.com/learn-co-curriculum/dsc-dealing-missing-data-lab/) * More on Missing Data [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492494) [[GH]](https://github.com/learn-co-curriculum/dsc-more-on-missing-data/) * More on Missing Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492495) [[GH]](https://github.com/learn-co-curriculum/dsc-more-on-missing-data-lab/) * Quiz: Dealing with Missing Data [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492496) * Lecture: Pandas Data Cleaning (Flex) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492497) [[VIM]](https://player.vimeo.com/video/681663867) * Pandas Data Cleaning Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492499) * Pandas Groupby [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492500) [[GH]](https://github.com/learn-co-curriculum/dsc-pandas-groupby/) * Combining DataFrames With Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492501) [[GH]](https://github.com/learn-co-curriculum/dsc-combining-dataframes-pandas/) * Combining DataFrames With Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492502) [[GH]](https://github.com/learn-co-curriculum/dsc-combining-dataframes-pandas-lab/) * Pivot Tables With Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492503) [[GH]](https://github.com/learn-co-curriculum/dsc-pivot-tables-pandas/) * Pivot Tables with Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492504) [[GH]](https://github.com/learn-co-curriculum/dsc-pivot-tables-pandas-lab/) * Quiz: Aggregating and Reshaping with Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492505) * Short Video: Pandas GroupBy [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492508) [[VIM]](https://player.vimeo.com/video/713399088) * Aggregating and Combining DataFrames Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492509) * Descriptive Analysis Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492512) * Pandas Data Cleaning - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492513) [[GH]](https://github.com/learn-co-curriculum/dsc-pandas-data-cleaning-lab/) * Data Cleaning in Pandas - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492514) [[GH]](https://github.com/learn-co-curriculum/dsc-summary-data-cleaning-pandas/)   **Topic 6: Getting Started with SQL**   * Topic 6 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492515) * Getting Started with SQL - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492516) [[GH]](https://github.com/learn-co-curriculum/dsc-getting-started-sql-intro/) * Connecting to SQL Databases [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492517) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-sqlite/) * Selecting Data with SQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492518) [[GH]](https://github.com/learn-co-curriculum/dsc-selecting-data-v2-4/) * Quiz: Getting Started with SQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492519) * Filtering Data with SQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492520) [[GH]](https://github.com/learn-co-curriculum/dsc-filtering-v2-4/) * Filtering Data with SQL - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492521) [[GH]](https://github.com/learn-co-curriculum/dsc-filtering-lab-v2-4/) * Ordering and Limiting Data with SQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492522) [[GH]](https://github.com/learn-co-curriculum/dsc-ordering-and-limiting/) * Filtering, Ordering, and Limiting Data with SQL - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492523) [[GH]](https://github.com/learn-co-curriculum/dsc-filtering-and-ordering-lab/) * Grouping Data with SQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492524) [[GH]](https://github.com/learn-co-curriculum/dsc-grouping-data-with-sql/) * Grouping Data with SQL - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492525) [[GH]](https://github.com/learn-co-curriculum/dsc-grouping-data-with-sql-lab/) * Database Admin 101 [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492526) [[GH]](https://github.com/learn-co-curriculum/dsc-database-admin-101/) * Database Admin 101 - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492527) [[GH]](https://github.com/learn-co-curriculum/dsc-database-admin-101-lab/) * SQL Database Data Types [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492528) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-database-data-types/) * Quiz: SQL Filtering and Database Management [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492529) * SQL Queries Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492532) * Getting Started with SQL - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492533) [[GH]](https://github.com/learn-co-curriculum/dsc-getting-started-sql-recap/)   **Topic 7: SQL Table Relations**   * Topic 7 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492534) * SQL Table Relations - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492535) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-relations-intro/) * Join Statements [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492536) [[GH]](https://github.com/learn-co-curriculum/dsc-join-statements/) * Join Statements - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492537) [[GH]](https://github.com/learn-co-curriculum/dsc-join-statements-lab/) * One-to-Many and Many-to-Many Joins [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492538) [[GH]](https://github.com/learn-co-curriculum/dsc-one-to-many-and-many-to-many-joins/) * One-to-Many and Many-to-Many Joins - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492539) [[GH]](https://github.com/learn-co-curriculum/dsc-one-to-many-and-many-to-many-joins-lab/) * Short Video: SQL JOINs [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492542) [[VIM]](https://player.vimeo.com/video/713398696) * SQL Joins and Aggregation Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492543) * SQL Subqueries [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492544) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-subqueries/) * SQL Subqueries - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492545) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-subqueries-lab/) * Using SQL with Pandas [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492546) [[GH]](https://github.com/learn-co-curriculum/dsc-using-sql-with-pandas/) * Using SQL with Pandas - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492547) [[GH]](https://github.com/learn-co-curriculum/dsc-using-sql-with-pandas-lab/) * Quiz: SQL Table Relations [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492548) * SQL Interview Questions - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492549) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-interview-questions-lab/) * SQL Subqueries and Implementations Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492552) * SQL - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492553) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-lab/) * Quiz: SQL Interview Questions [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492554) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-interview-questions-quiz#question-1\) * SQL Table Relations - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492555) [[GH]](https://github.com/learn-co-curriculum/dsc-sql-relations-recap/)   **Topic 8: Other Database Structures**   * Topic 8 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492556) * NoSQL Databases - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492557) [[GH]](https://github.com/learn-co-curriculum/dsc-nosql-databases-section-intro/) * NoSQL Databases: Document Stores [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492558) [[GH]](https://github.com/learn-co-curriculum/dsc-nosql-document-stores-v2-1/) * MongoDB [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492559) [[GH]](https://github.com/learn-co-curriculum/dsc-mongodb/) * MongoDB - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492560) [[GH]](https://github.com/learn-co-curriculum/dsc-mongodb-lab/) * Quiz: NoSQL Interview Questions [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492561) * Lecture: NoSQL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492562) [[VIM]](https://player.vimeo.com/video/681643492) * NoSQL Databases - Summary [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492563) [[GH]](https://github.com/learn-co-curriculum/dsc-nosql-databases-section-recap-v2-1/)   **Topic 9: APIs**   * Topic 9 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492564) * APIs - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492565) [[GH]](https://github.com/learn-co-curriculum/dsc-apis-intro/) * Introduction to APIs [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492566) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-apis/) * The Client Server Model [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492567) [[GH]](https://github.com/learn-co-curriculum/dsc-the-client-server-model/) * HTTP Request/Response Cycle - Codealong [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492568) [[GH]](https://github.com/learn-co-curriculum/dsc-http-request-response-codealong/) * HTTP Request/Response Cycle - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492569) [[GH]](https://github.com/learn-co-curriculum/dsc-http-request-response-lab/) * OAuth - Open Authorization [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492570) [[GH]](https://github.com/learn-co-curriculum/dsc-oauth-open-authorization/) * Using the Yelp API - Codealong [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492571) [[GH]](https://github.com/learn-co-curriculum/dsc-using-yelp-api-codealong/) * APIs Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492574) * Reading API Documentation [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492575) [[GH]](https://github.com/learn-co-curriculum/dsc-reading-api-documentation/) * Folium - Codealong [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492576) [[GH]](https://github.com/learn-co-curriculum/dsc-folium-codealong/) * Quiz: APIs [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492577) * APIs - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492578) [[GH]](https://github.com/learn-co-curriculum/dsc-apis-lab/) * APIs - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492579) [[GH]](https://github.com/learn-co-curriculum/dsc-apis-recap/)   **Topic 10: HTML, CSS and Web Scraping**   * Topic 10 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492580) * HTML, CSS and Web Scraping - Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492581) [[GH]](https://github.com/learn-co-curriculum/dsc-html-css-scraping-intro-v2-1/) * HTML Introduction [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492582) [[GH]](https://github.com/learn-co-curriculum/dsc-html-introduction/) * Researching HTML Elements [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492583) [[GH]](https://github.com/learn-co-curriculum/dsc-researching-html-elements/) * Separating Content and Presentation [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492584) [[GH]](https://github.com/learn-co-curriculum/dsc-separating-content-and-presentation/) * Intro to CSS [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492585) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-css/) * Quiz: HTML and CSS [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492586) * CSS Code Along [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492587) [[GH]](https://github.com/learn-co-curriculum/dsc-css-code-along/) * My Little Rainbow [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492588) [[GH]](https://github.com/learn-co-curriculum/dsc-my-little-rainbow-lab/) * An Introduction to Web Scraping and Beautiful Soup [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492589) [[GH]](https://github.com/learn-co-curriculum/dsc-web-scraping-with-beautiful-soup/) * Web Scraping In Practice [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492590) [[GH]](https://github.com/learn-co-curriculum/dsc-web-scraping-in-practice/) * Web Scraping - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492591) [[GH]](https://github.com/learn-co-curriculum/dsc-web-scraping-lab/) * Quiz: CSS and Web Scraping [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492592) * Web Scraping Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492595) * Scraping Images [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492596) [[GH]](https://github.com/learn-co-curriculum/dsc-scraping-images/) * Scraping Concerts - Lab [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492597) [[GH]](https://github.com/learn-co-curriculum/dsc-scraping-concerts-lab/) * HTML, CSS and Web Scraping - Recap [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492598) [[GH]](https://github.com/learn-co-curriculum/dsc-html-css-scraping-recap-v2-1/) | **Topic 11: Combinatorics and Probability**   * Topic 11 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507348) * Combinatorics and Probability - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507349) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-section-intro/) * What is Probability? [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507350) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-introduction/) * Introduction to Sets [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507351) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-sets/) * Introduction to Sets - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507352) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-sets-lab/) * Introduction to Probability [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507353) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-probability/) * Introduction to Probability - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507354) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-probability-lab/) * Permutations and Factorials [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507355) [[GH]](https://github.com/learn-co-curriculum/dsc-permutations-and-factorials-v2-1/) * Permutations and Factorials - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507356) [[GH]](https://github.com/learn-co-curriculum/dsc-permutations-and-factorials-lab-v2-1/) * Combinations [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507357) [[GH]](https://github.com/learn-co-curriculum/dsc-combinations/) * Combinations - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507358) [[GH]](https://github.com/learn-co-curriculum/dsc-combinations-lab/) * Conditional Probability [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507359) [[GH]](https://github.com/learn-co-curriculum/dsc-conditional-probability/) * Conditional Probability - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507360) [[GH]](https://github.com/learn-co-curriculum/dsc-conditional-probability-lab/) * Partitioning and the Law of Total Probability [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507361) [[GH]](https://github.com/learn-co-curriculum/dsc-law-of-total-probability/) * Partitioning and Law of Total Probability - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507362) [[GH]](https://github.com/learn-co-curriculum/dsc-law-of-total-probability-lab/) * Simulations with Conditional and Total Probability - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507363) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-simulations-lab/) * Quiz: Combinatorics and Probability [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507364) * Lecture: Probability (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507365) [[VIM]](https://player.vimeo.com/video/681705042) * Lecture: Probability (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507366) * Probability Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507367) * Combinatorics and Probability - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507368) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-section-recap/)   **Topic 12: Statistical Distributions**   * Topic 12 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507369) * Statistical Distributions - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507370) [[GH]](https://github.com/learn-co-curriculum/dsc-distributions-intro-v2-2/) * Introduction to Sampling [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507371) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-sampling/) * Statistical Distributions and Their Use Cases [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507372) [[GH]](https://github.com/learn-co-curriculum/dsc-stat-distributions-use-cases/) * The Probability Mass Function (PMF) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507373) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-mass-function/) * The Probability Mass Function - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507374) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-mass-function-lab/) * The Probability Density Function (PDF) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507375) [[GH]](https://github.com/learn-co-curriculum/dsc-probability-density-function/) * The Probability Density Function - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507376) [[GH]](https://github.com/learn-co-curriculum/probability-density-functions-lab/) * The Cumulative Distribution Function [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507377) [[GH]](https://github.com/learn-co-curriculum/dsc-cumulative-distribution-function/) * The Cumulative Distribution Function - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507378) [[GH]](https://github.com/learn-co-curriculum/dsc-cumulative-distribution-function-lab/) * Bernoulli and Binomial Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507379) [[GH]](https://github.com/learn-co-curriculum/dsc-bernoulli-and-binomial-distribution/) * Bernoulli and Binomial Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507380) [[GH]](https://github.com/learn-co-curriculum/dsc-bernoulli-and-binomial-distribution-lab/) * Lecture: Statistical Distributions: Density Functions (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507381) [[VIM]](https://player.vimeo.com/video/681707548) * Distributions 1 Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507383) * The Normal Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507384) [[GH]](https://github.com/learn-co-curriculum/dsc-normal-distribution/) * The Normal Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507385) [[GH]](https://github.com/learn-co-curriculum/dsc-normal-distribution-lab/) * The Standard Normal Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507386) [[GH]](https://github.com/learn-co-curriculum/dsc-standard-normal-distribution/) * The Standard Normal Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507387) [[GH]](https://github.com/learn-co-curriculum/dsc-standard-normal-distribution-lab/) * Skewness and Kurtosis [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507388) [[GH]](https://github.com/learn-co-curriculum/dsc-skewness-and-kurtosis/) * Skewness and Kurtosis - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507389) [[GH]](https://github.com/learn-co-curriculum/dsc-skewness-and-kurtosis-lab/) * Quiz: Statistical Distributions [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507390) * Lecture: Statistical Distributions: The Normal Distribution (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507391) [[VIM]](https://player.vimeo.com/video/681710584) * Distributions 2 Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507393) * Statistical Distributions - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507394) [[GH]](https://github.com/learn-co-curriculum/dsc-distributions-recap-v2-2/)   **Topic 13: Central Limit Theorem and Confidence Intervals**   * Topic 13 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507395) * Central Limit Theorem and Confidence Intervals - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507396) [[GH]](https://github.com/learn-co-curriculum/dsc-confidence-intervals-intro-v2-2/) * Central Limit Theorem [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507397) [[GH]](https://github.com/learn-co-curriculum/dsc-central-limit-theorem/) * Central Limit Theorem - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507398) [[GH]](https://github.com/learn-co-curriculum/dsc-central-limit-theorem-lab/) * Sampling Statistics - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507399) [[GH]](https://github.com/learn-co-curriculum/dsc-sampling-statistics-lab/) * Confidence Intervals - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507400) [[GH]](https://github.com/learn-co-curriculum/dsc-confidence-intervals-lab/) * Confidence Intervals with T-Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507401) [[GH]](https://github.com/learn-co-curriculum/dsc-intervals-with-t-distribution/) * Confidence Intervals with T Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507402) [[GH]](https://github.com/learn-co-curriculum/dsc-intervals-with-t-distribution-lab/) * Introduction to Statistical Significance [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507403) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-significance/) * Lecture: Confidence Intervals (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507404) [[VIM]](https://player.vimeo.com/video/681713132) * Short Video: Calculating a Confidence Interval [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507406) [[VIM]](https://player.vimeo.com/video/713478540) * Confidence Intervals Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507407) * Quiz: Central Limit Theorem and Confidence Intervals [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507408) * Central Limit Theorem and Confidence Intervals - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507409) [[GH]](https://github.com/learn-co-curriculum/dsc-inferential-statistics-section-recap/)   **Topic 14: Hypothesis Testing**   * Topic 14 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507410) * Hypothesis Testing - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507411) [[GH]](https://github.com/learn-co-curriculum/dsc-hypothesis-testing-intro-v2-1/) * Introduction to Experimental Design [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507412) [[GH]](https://github.com/learn-co-curriculum/dsc-experimental-design/) * Statistical Testing with z-score and p-value [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507413) [[GH]](https://github.com/learn-co-curriculum/dsc-z-score-p-value/) * P-Values and the Null Hypothesis [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507414) [[GH]](https://github.com/learn-co-curriculum/dsc-p-values-and-null-hypothesis/) * Short Video: Hypothesis Testing in General [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507415) [[VIM]](https://player.vimeo.com/video/713478390) * One-Sample z-Test [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507416) [[GH]](https://github.com/learn-co-curriculum/dsc-one-sample-z-test/) * One-Sample z-test - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507417) [[GH]](https://github.com/learn-co-curriculum/dsc-one-sample-z-test-lab/) * Lecture: Hypothesis Testing: z-Tests (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507418) [[VIM]](https://player.vimeo.com/video/681719318) * z Tests Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507420) * Conducting T-Tests [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507421) [[GH]](https://github.com/learn-co-curriculum/dsc-t-tests/) * One Sample T-Test - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507422) [[GH]](https://github.com/learn-co-curriculum/dsc-one-sample-t-tests-lab/) * Two Sample T-Test - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507423) [[GH]](https://github.com/learn-co-curriculum/dsc-two-sample-t-tests-lab/) * Type I and Type II errors [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507424) [[GH]](https://github.com/learn-co-curriculum/dsc-type-1-and-2-error/) * Type I and Type II Errors - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507425) [[GH]](https://github.com/learn-co-curriculum/dsc-type-1-and-2-error-lab/) * Resampling Methods [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507426) [[GH]](https://github.com/learn-co-curriculum/dsc-resampling-methods/) * Resampling Methods - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507427) [[GH]](https://github.com/learn-co-curriculum/dsc-resampling-methods-lab/) * Quiz: Hypothesis Testing [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507428) * Lecture: Hypothesis Testing: t-Tests (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507429) [[VIM]](https://player.vimeo.com/video/681722366) * t Tests Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507431) * Hypothesis Testing - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507432) [[GH]](https://github.com/learn-co-curriculum/dsc-hypothesis-testing-section-recap-v2-1/)   **Topic 15: Statistical Power and ANOVA**   * Topic 15 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507433) * Statistical Power and ANOVA - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507434) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-power-anova-introduction/) * Effect Size [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507435) [[GH]](https://github.com/learn-co-curriculum/dsc-effect-sizes/) * Statistical Power [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507436) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-power/) * Statistical Power - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507437) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-power-lab/) * Welch's T-Test [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507438) [[GH]](https://github.com/learn-co-curriculum/dsc-welchs-ttest/) * Welch's T-test - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507439) [[GH]](https://github.com/learn-co-curriculum/dsc-welchs-ttest-lab/) * Effect Size, P-Values and Power - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507440) [[GH]](https://github.com/learn-co-curriculum/dsc-effect-sizes-pvalues-and-power-lab/) * The Multiple Comparisons Problem [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507441) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-comparisons-problem/) * Goodhart's Law and Metric Tracking [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507442) [[GH]](https://github.com/learn-co-curriculum/dsc-goodharts-law-and-metric-tracking/) * The Kolmogorov-Smirnov Test [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507443) [[GH]](https://github.com/learn-co-curriculum/dsc-kolmogorov-smirnov-test/) * The Kolmogorov-Smirnov Test - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507444) [[GH]](https://github.com/learn-co-curriculum/dsc-komogorov-smirnov-test-lab/) * ANOVA [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507445) [[GH]](https://github.com/learn-co-curriculum/dsc-anova/) * ANOVA - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507446) [[GH]](https://github.com/learn-co-curriculum/dsc-anova-lab/) * Quiz: Statistical Power and ANOVA [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507447) * Lecture: ANOVA (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507448) [[VIM]](https://player.vimeo.com/video/681724904) * ANOVA Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507450) * Chi-Square Tests [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507451) [[GH]](https://github.com/learn-co-curriculum/dsc-chi-square/) * Lecture: Chi-Square Tests (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507452) [[VIM]](https://player.vimeo.com/video/681728472) * Chi-Square Tests Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507454) * Hypothesis Testing - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507455) [[GH]](https://github.com/learn-co-curriculum/dsc-hypothesis-testing-lab/) * Statistical Power and ANOVA - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507456) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-power-anova-recap/)   **Topic 16: AB Testing**   * Topic 16 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507457) * AB Testing - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507458) [[GH]](https://github.com/learn-co-curriculum/dsc-ab-testing-introduction/) * A/B Testing [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507459) [[GH]](https://github.com/learn-co-curriculum/dsc-ab-testing/) * A/B Testing - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507460) [[GH]](https://github.com/learn-co-curriculum/dsc-ab-testing-lab/) * Lecture: A/B Testing: Design (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507461) [[VIM]](https://player.vimeo.com/video/681732101) * A/B Testing Design Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507463) * In Depth A/B Testing - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507464) [[GH]](https://github.com/learn-co-curriculum/dsc-in-depth-ab-testing-lab/) * Lecture: A/B Testing: Analysis (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507465) [[VIM]](https://player.vimeo.com/video/681740049) * A/B Testing Analysis Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507467) * Website AB Testing - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507468) [[GH]](https://github.com/learn-co-curriculum/dsc-website-ab-testing-lab/) * AB Testing - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507469) [[GH]](https://github.com/learn-co-curriculum/dsc-ab-testing-recap/)   **Topic 17: Bayesian Statistics**   * Topic 17 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507470) * Bayesian Statistics - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507471) [[GH]](https://github.com/learn-co-curriculum/dsc-bayesian-stats-introduction/) * Bayesians vs Frequentists [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507472) [[GH]](https://github.com/learn-co-curriculum/dsc-bayesians-vs-frequentists/) * Bayes' Theorem [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507473) [[GH]](https://github.com/learn-co-curriculum/dsc-bayes-theorem/) * Bayes' Theorem - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507474) [[GH]](https://github.com/learn-co-curriculum/dsc-bayes-theorem-lab/) * The Monty Hall Problem [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507475) [[GH]](https://github.com/learn-co-curriculum/dsc-monty-hall-problem-lab/) * Maximum Likelihood Estimation (MLE) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507476) [[GH]](https://github.com/learn-co-curriculum/dsc-mle/) * Maximum A Posteriori Estimation (MAP) and Multinomial Bayes [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507477) [[GH]](https://github.com/learn-co-curriculum/dsc-map-multinomial-bayes/) * Lecture: Bayesian Reasoning (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507478) [[VIM]](https://player.vimeo.com/video/681872418) * Bayesian Reasoning Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507480) * Bayesian Statistics - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507481) [[GH]](https://github.com/learn-co-curriculum/dsc-bayesian-stats-recap/)   **Topic 18: Introduction to Linear Regression**   * Topic 18 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507482) * Introduction to Linear Regression - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507483) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-regression-section-intro-v2-5/) * Statistical Modeling [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507484) [[GH]](https://github.com/learn-co-curriculum/dsc-statistical-modeling/) * Simple Linear Regression from Scratch - Codealong [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507485) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-regression-from-scratch/) * Regression Model Evaluation [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507486) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-model-evaluation/) * Coefficient of Determination - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507487) [[GH]](https://github.com/learn-co-curriculum/dsc-coefficient-of-determination-lab/) * Quiz: Introduction to Linear Regression [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507488) * Lecture: Simple Linear Regression: Part 1 (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507489) [[VIM]](https://player.vimeo.com/video/681737800) * Simple Linear Regression Theory Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507491) * Linear Regression in StatsModels [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507492) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-regression-statsmodels/) * Linear Regression in StatsModels - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507493) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-regression-statsmodels-lab/) * Quiz: Linear Regression in StatsModels [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507494) * Lecture: Simple Linear Regression: Part 2 (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507495) [[VIM]](https://player.vimeo.com/video/681742625) * Simple Linear Regression with StatsModels Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507497) * Introduction to Linear Regression - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507498) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-regression-section-recap-v2-5/)   **Topic 19: Multiple Linear Regression**   * Topic 19 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507499) * Multiple Linear Regression - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507500) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-regression-intro/) * Multiple Linear Regression [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507501) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-linear-regression/) * Multiple Linear Regression in StatsModels [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507502) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-linear-regression-in-statsmodels-v2-5/) * Multiple Linear Regression in StatsModels - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507503) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-linear-regression-statsmodels-lab-v2-5/) * Multiple Regression Model Evaluation [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507504) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-regression-evaluation/) * Lecture: Multiple Linear Regression: Part 1 (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507505) [[VIM]](https://player.vimeo.com/video/681745419) * Multiple Linear Regression with Raw Features Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507507) * Dealing with Categorical Variables [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507508) [[GH]](https://github.com/learn-co-curriculum/dsc-categorical-variables-regression/) * Interpreting One-Hot Encoded Coefficients [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507509) [[GH]](https://github.com/learn-co-curriculum/dsc-interpreting-multiple-regression-coefficients/) * Short Video: One-Hot Encoding [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507510) [[VIM]](https://player.vimeo.com/video/713478266) * Dealing with Categorical Variables - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507511) [[GH]](https://github.com/learn-co-curriculum/dsc-categorical-variables-regression-lab/) * Quiz: Multiple Linear Regression [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507512) * Lecture: Multiple Linear Regression: Part 2 (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507513) [[VIM]](https://player.vimeo.com/video/681749196) * Dealing with Categorical Features Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507515) * Multiple Linear Regression - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507516) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-regression-cumulative-lab/) * Multiple Linear Regression - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507517) [[GH]](https://github.com/learn-co-curriculum/dsc-multiple-regression-recap/) * Lecture: Categories and Transformations (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507518) [[VIM]](https://player.vimeo.com/video/743218590)   **Topic 20: Regression Diagnostics**   * Topic 20 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507519) * Regression Diagnostics - Introduction [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507520) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-diagnostics-intro/) * Linear Transformations [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507521) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-transformations/) * Linear Transformations - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507522) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-transformations-lab/) * Log Transformations [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507523) [[GH]](https://github.com/learn-co-curriculum/dsc-log-transformations-v2-5/) * Log Transformations - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507524) [[GH]](https://github.com/learn-co-curriculum/dsc-log-transformations-lab/) * Interactions [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507525) [[GH]](https://github.com/learn-co-curriculum/dsc-interaction-terms-v2-5/) * Interactions - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507526) [[GH]](https://github.com/learn-co-curriculum/dsc-interaction-terms-lab-v2-5/) * Polynomial Regression [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507527) [[GH]](https://github.com/learn-co-curriculum/dsc-polynomial-regression-v2-5/) * Polynomial Regression - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507528) [[GH]](https://github.com/learn-co-curriculum/dsc-polynomial-regression-lab-v2-5/) * Lecture: Feature Selection and Engineering (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507529) [[VIM]](https://player.vimeo.com/video/681752133) * Feature Transformations Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507531) * Assumptions for Linear Regression [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507532) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-assumptions-v2-5/) * The Linearity Assumption [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507533) [[GH]](https://github.com/learn-co-curriculum/dsc-linearity-assumption/) * Multicollinearity of Features [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507534) [[GH]](https://github.com/learn-co-curriculum/dsc-multicollinearity-of-features/) * Multicollinearity of Features - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507535) [[GH]](https://github.com/learn-co-curriculum/dsc-multicollinearity-of-features-lab/) * The Normality Assumption [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507536) [[GH]](https://github.com/learn-co-curriculum/dsc-normality-assumption/) * Short Video: QQ Plots [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507537) [[VIM]](https://player.vimeo.com/video/713478485) * The Homoscedasticity Assumption [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507538) [[GH]](https://github.com/learn-co-curriculum/dsc-homoscedasticity-assumption/) * Linear Regression Assumptions Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507540) * Quiz: Regression Diagnostics [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507541) * Regression Diagnostics - Recap [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507542) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-diagnostics-recap/) * Lecture: Assumptions of Linear Regression (Flex) [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507543) [[VIM]](https://player.vimeo.com/video/743218291)   **APPENDIX: Combinatorics**   * Combinatorics: Recursive Functions [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507570) [[GH]](https://github.com/learn-co-curriculum/dsc-recursive-functions/) * Combinatorics: Recursive Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507571) [[GH]](https://github.com/learn-co-curriculum/dsc-recursive-functions-lab/)   **APPENDIX: More Distributions**   * The Uniform Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507572) [[GH]](https://github.com/learn-co-curriculum/dsc-uniform-distribution/) * Poisson Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507573) [[GH]](https://github.com/learn-co-curriculum/dsc-poisson-distribution/) * The Poisson Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507574) [[GH]](https://github.com/learn-co-curriculum/dsc-poisson-distribution-lab/) * The Exponential Distribution [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507575) [[GH]](https://github.com/learn-co-curriculum/dsc-exponential-distribution/) * The Exponential Distribution - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507576) [[GH]](https://github.com/learn-co-curriculum/dsc-exponential-distribution-lab/)   **APPENDIX: Monte Carlo**   * (Re)sampling: Monte Carlo Simulations [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507577) [[GH]](https://github.com/learn-co-curriculum/dsc-monte-carlo-simulations/) * (Re)sampling: Monte Carlo Simulations - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507578) [[GH]](https://github.com/learn-co-curriculum/dsc-monte-carlo-simulations-lab/)   **APPENDIX : Multiple Linear Regression Project**   * Obtaining Your Data [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507579) [[GH]](https://github.com/learn-co-curriculum/dsc-obtaining-your-data/) * Obtaining Your Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507580) [[GH]](https://github.com/learn-co-curriculum/dsc-obtaining-your-data-lab/) * Scrubbing and Cleaning Data [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507581) [[GH]](https://github.com/learn-co-curriculum/dsc-scrubbing-and-cleaning-data/) * Scrubbing and Cleaning Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507582) [[GH]](https://github.com/learn-co-curriculum/dsc-scrubbing-and-cleaning-data-lab/) * Exploring Your Data [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507583) [[GH]](https://github.com/learn-co-curriculum/dsc-exploring-your-data/) * Exploring Your Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507584) [[GH]](https://github.com/learn-co-curriculum/dsc-exploring-your-data-lab/) | **Topic 21: Object-Oriented Programming and Scikit-Learn**   * Topic 21 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509457) * Object-Oriented Programming - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509458) [[GH]](https://github.com/learn-co-curriculum/dsc-oop-intro-v2-4/) * Classes and Instances [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509459) [[GH]](https://github.com/learn-co-curriculum/dsc-classes-and-instances/) * Classes and Instances - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509460) [[GH]](https://github.com/learn-co-curriculum/dsc-classes-and-instances-lab/) * Instance Methods [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509461) [[GH]](https://github.com/learn-co-curriculum/dsc-instance-methods/) * Instance Methods - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509462) [[GH]](https://github.com/learn-co-curriculum/dsc-instance-methods-lab/) * A Deeper Dive into self [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509463) [[GH]](https://github.com/learn-co-curriculum/dsc-understanding-self/) * Object Attributes - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509464) [[GH]](https://github.com/learn-co-curriculum/dsc-object-attributes-lab/) * Object Initialization [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509465) [[GH]](https://github.com/learn-co-curriculum/dsc-object-initialization/) * Object Initialization - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509466) [[GH]](https://github.com/learn-co-curriculum/dsc-object-initialization-lab/) * Quiz: Object-Oriented Programming [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509467) * Lecture: Python OOP (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509468) [[VIM]](https://player.vimeo.com/video/681841121) * Python OOP Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509470) * Inheritance [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509471) [[GH]](https://github.com/learn-co-curriculum/dsc-inheritance/) * Inheritance - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509472) [[GH]](https://github.com/learn-co-curriculum/dsc-inheritance-lab/) * OOP with Scikit-Learn [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509473) [[GH]](https://github.com/learn-co-curriculum/dsc-oop-sklearn/) * OOP with Scikit-Learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509474) [[GH]](https://github.com/learn-co-curriculum/dsc-oop-sklearn-lab/) * Lecture: OOP with Scikit-Learn (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509475) [[VIM]](https://player.vimeo.com/video/681843151) * OOP with Scikit-Learn Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509477) * Short Video: Debugging with OOP [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509478) [[VIM]](https://player.vimeo.com/video/713802485) * Preprocessing with scikit-learn - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509479) [[GH]](https://github.com/learn-co-curriculum/dsc-sklearn-preprocessing-lab/) * Object-Oriented Programming - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509480) [[GH]](https://github.com/learn-co-curriculum/dsc-oop-recap-v2-1/)   **Topic 22: Linear Algebra and Calculus**   * Topic 22 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509481) * Linear Algebra and Calculus - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509482) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-algebra-and-calculus-intro/) * Motivation for Linear Algebra in Data Science [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509483) [[GH]](https://github.com/learn-co-curriculum/dsc-lingalg-motivation/) * Systems of Linear Equations [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509484) [[GH]](https://github.com/learn-co-curriculum/dsc-lingalg-linear-equations/) * Systems of Linear Equations - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509485) [[GH]](https://github.com/learn-co-curriculum/dsc-lingalg-linear-equations-quiz/) * Scalars, Vectors, Matrices, and Tensors - Code Along [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509486) [[GH]](https://github.com/learn-co-curriculum/dsc-scalars-vectors-matrices-tensors-codealong/) * Matrix Multiplication - Code Along [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509487) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-mat-multiplication-codealong/) * Short Video: Matrix Multiplication [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509488) [[VIM]](https://player.vimeo.com/video/713802388) * Solving Systems of Linear Equations with NumPy - Code Along [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509489) [[GH]](https://github.com/learn-co-curriculum/dsc-lineq-numpy-codealong/) * Solving Systems of Linear Equations with NumPy - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509490) [[GH]](https://github.com/learn-co-curriculum/dsc-lineq-numpy-lab/) * Regression Analysis using Linear Algebra and NumPy - Code Along [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509491) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-regression-codealong/) * Regression with Linear Algebra - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509492) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-regression-lab/) * Computational Complexity: From OLS to Gradient Descent [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509493) [[GH]](https://github.com/learn-co-curriculum/dsc-computational-complexity/) * Quiz: Linear Algebra [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509494) * Lecture: Linear Algebra (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509495) [[VIM]](https://player.vimeo.com/video/681827948) * Linear Algebra Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509497) * Introduction to Derivatives [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509498) [[GH]](https://github.com/learn-co-curriculum/dsc-derivatives-intro/) * Introduction to Derivatives - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509499) [[GH]](https://github.com/learn-co-curriculum/dsc-derivatives-intro-lab/) * Derivatives of Non-Linear Functions [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509500) [[GH]](https://github.com/learn-co-curriculum/dsc-derivatives-of-non-linear-functions/) * Rules for Derivatives [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509501) [[GH]](https://github.com/learn-co-curriculum/dsc-rules-for-derivatives/) * Derivatives: Conclusion [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509502) [[GH]](https://github.com/learn-co-curriculum/dsc-derivatives-conclusion/) * Lecture: Calculus and Cost Functions [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509503) [[VIM]](https://player.vimeo.com/video/681831452) * Calculus and Cost Functions Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509504) * Introduction to Gradient Descent [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509505) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-intro/) * Gradient Descent: Step Sizes [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509506) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-step-sizes/) * Gradient Descent: Step Sizes - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509507) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-step-sizes-lab/) * Gradient Descent in 3D [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509508) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-in-3d/) * The Gradient in Gradient Descent [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509509) [[GH]](https://github.com/learn-co-curriculum/dsc-the-gradient-in-gradient-descent/) * Short Video: The Gradient [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509510) [[VIM]](https://player.vimeo.com/video/713802605) * Gradient to Cost Function [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509511) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-to-cost-function-v2-1/) * Applying Gradient Descent - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509512) [[GH]](https://github.com/learn-co-curriculum/dsc-applying-gradient-descent-lab/) * Lecture: Gradient Descent (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509513) [[VIM]](https://player.vimeo.com/video/681846552) * Gradient Descent Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509515) * Linear Algebra and Calculus - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509516) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-algebra-and-calculus-recap/)   **Topic 23: Machine Learning Fundamentals**   * Topic 23 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509517) * Machine Learning Fundamentals - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509518) [[GH]](https://github.com/learn-co-curriculum/dsc-ml-fundamentals-intro/) * Data Science Processes [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509519) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-processes/) * Statistical Learning Theory [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509520) [[GH]](https://github.com/learn-co-curriculum/dsc-stat-learning-theory-v2-5/) * Regression Model Validation [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509521) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-model-validation/) * Regression Model Validation - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509522) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-model-validation-lab/) * Introduction to Cross-Validation [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509523) [[GH]](https://github.com/learn-co-curriculum/dsc-cross-validation/) * Introduction to Cross-Validation - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509524) [[GH]](https://github.com/learn-co-curriculum/dsc-cross-validation-lab/) * Short Video: Cross-Validation [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509525) [[VIM]](https://player.vimeo.com/video/713478191) * Bias-Variance Tradeoff [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509526) [[GH]](https://github.com/learn-co-curriculum/dsc-bias-variance-trade-off/) * Bias-Variance Tradeoff - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509527) [[GH]](https://github.com/learn-co-curriculum/dsc-bias-variance-trade-off-lab/) * Short Video: Bias-Variance Tradeoff [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509528) [[VIM]](https://player.vimeo.com/video/713478315) * Quiz: Machine Learning Fundamentals [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509529) * Lecture: Inference vs. Prediction (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509530) [[VIM]](https://player.vimeo.com/video/681755485) * Inference vs. Prediction Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509532) * Lecture: Model Validation (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509533) [[VIM]](https://player.vimeo.com/video/681757906) * Lecture: Data Leakage (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509534) [[VIM]](https://player.vimeo.com/video/674519174) * Model Validation and Data Leakage Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509536) * Ridge and Lasso Regression [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509537) [[GH]](https://github.com/learn-co-curriculum/dsc-ridge-and-lasso-regression/) * Ridge and Lasso Regression - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509538) [[GH]](https://github.com/learn-co-curriculum/dsc-ridge-and-lasso-regression-lab/) * Feature Selection Methods [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509539) [[GH]](https://github.com/learn-co-curriculum/dsc-feature-selection-methods/) * Extensions to Linear Models - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509540) [[GH]](https://github.com/learn-co-curriculum/dsc-extensions-to-linear-models-lab/) * Quiz: Regularization [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509541) * Lecture: Regularization (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509542) [[VIM]](https://player.vimeo.com/video/681849534) * Regularization Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509544) * Machine Learning Fundamentals - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509545) [[GH]](https://github.com/learn-co-curriculum/dsc-ml-fundamentals-lab/) * Machine Learning Fundamentals - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509546) [[GH]](https://github.com/learn-co-curriculum/dsc-ml-fundamentals-recap/)   **Topic 24: Logistic Regression**   * Topic 24 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509547) * Logistic Regression - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509548) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-intro-v2-4/) * Introduction to Supervised Learning [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509549) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-to-supervised-learning-v2-1/) * Linear to Logistic regression [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509550) [[GH]](https://github.com/learn-co-curriculum/dsc-linear-to-logistic-regression/) * Fitting a Logistic Regression Model - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509551) [[GH]](https://github.com/learn-co-curriculum/dsc-fitting-a-logistic-regression-model-lab/) * Logistic Regression in scikit-learn [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509552) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-in-scikit-learn/) * Logistic Regression in scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509553) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-in-scikit-learn-lab/) * Quiz: Introduction to Logistic Regression [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509554) * Lecture: Logistic Regression: Introduction (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509555) [[VIM]](https://player.vimeo.com/video/681853997) * Logistic Regression: Introduction Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509557) * MLE Review [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509558) [[GH]](https://github.com/learn-co-curriculum/dsc-mle-review/) * MLE and Logistic Regression [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509559) [[GH]](https://github.com/learn-co-curriculum/dsc-mle-logistic-regression/) * Gradient Descent Review [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509560) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-review/) * Gradient Descent - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509561) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-descent-lab/) * Coding Logistic Regression From Scratch - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509562) [[GH]](https://github.com/learn-co-curriculum/dsc-coding-logistic-regression-from-scratch/) * Lecture: Implementing and Interpreting Logistic Regression (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509563) [[VIM]](https://player.vimeo.com/video/681858308) * Implementing and Interpreting Logistic Regression Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509565) * Logistic Regression - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509566) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-recap/)   **Topic 25: Classification Metrics**   * Topic 25 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509567) * Classification Metrics - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509568) [[GH]](https://github.com/learn-co-curriculum/dsc-classification-metrics-intro/) * Confusion Matrices [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509569) [[GH]](https://github.com/learn-co-curriculum/dsc-confusion-matrices/) * Visualizing Confusion Matrices - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509570) [[GH]](https://github.com/learn-co-curriculum/dsc-visualizing-confusion-matrices-lab/) * Evaluation Metrics [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509571) [[GH]](https://github.com/learn-co-curriculum/dsc-evaluation-metrics/) * Evaluating Logistic Regression Models - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509572) [[GH]](https://github.com/learn-co-curriculum/dsc-evaluating-logistic-regression-models-lab/) * Lecture: Evaluating Classification Models: Confusion Matrix (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509573) [[VIM]](https://player.vimeo.com/video/681862137) * Evaluating Classification Models: Confusion Matrix Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509575) * ROC Curves and AUC [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509576) [[GH]](https://github.com/learn-co-curriculum/dsc-roc-curves-and-auc/) * ROC Curves and AUC - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509577) [[GH]](https://github.com/learn-co-curriculum/dsc-roc-curves-and-auc-lab/) * Logistic Regression Model Comparisons - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509578) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-model-comparisons-lab/) * Class Imbalance Problems [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509579) [[GH]](https://github.com/learn-co-curriculum/dsc-class-imbalance-problems/) * Class Imbalance Problems - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509580) [[GH]](https://github.com/learn-co-curriculum/dsc-class-imbalance-problems-lab/) * Quiz: Classification Metrics [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509581) * Lecture: Evaluating Classification Models: Predicted Probabilities (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509582) [[VIM]](https://player.vimeo.com/video/568640196) * Evaluating Classification Models: Predicted Probabilities Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509584) * Lecture: Iterative Modeling Workflow (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509585) [[VIM]](https://player.vimeo.com/video/673359462) * Iterative Modeling Workflow Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509587) * Logistic Regression - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509588) [[GH]](https://github.com/learn-co-curriculum/dsc-logistic-regression-lab/) * Classification Metrics - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509589) [[GH]](https://github.com/learn-co-curriculum/dsc-classification-metrics-recap/)   **Topic 26: Decision Trees**   * Topic 26 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509590) * Decision Trees - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509591) [[GH]](https://github.com/learn-co-curriculum/dsc-decision-trees-section-intro/) * Introduction to Decision Trees [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509592) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-decision-trees/) * Entropy and Information Gain [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509593) [[GH]](https://github.com/learn-co-curriculum/dsc-entropy-and-information-gain/) * ID3 Classification Trees: Perfect Split with Information Gain - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509594) [[GH]](https://github.com/learn-co-curriculum/dsc-ID3-trees-lab/) * Building Trees using scikit-learn [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509595) [[GH]](https://github.com/learn-co-curriculum/dsc-decision-trees-with-sklearn-codealong/) * Building Trees using scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509596) [[GH]](https://github.com/learn-co-curriculum/dsc-decision-trees-lab/) * Hyperparameter Tuning and Pruning in Decision Trees [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509597) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-decision-trees/) * Hyperparameter Tuning and Pruning in Decision Trees - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509598) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-decision-trees-lab/) * Regression with CART Trees [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509599) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-cart-trees-codealong/) * Regression with CART Trees - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509600) [[GH]](https://github.com/learn-co-curriculum/dsc-regression-cart-trees-lab/) * Regression Trees and Model Optimization - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509601) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-regression-trees-lab/) * Quiz: Decision Trees [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509602) * Lecture: Decision Trees (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509603) [[VIM]](https://player.vimeo.com/video/571771309) * Short Video: Regression Trees [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509605) [[VIM]](https://player.vimeo.com/video/713802712) * Decision Trees Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509606) * Decision Trees - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509607) [[GH]](https://github.com/learn-co-curriculum/dsc-decision-trees-section-recap/)   **Topic 27: K Nearest Neighbors**   * Topic 27 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509608) * K-Nearest Neighbors - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509609) [[GH]](https://github.com/learn-co-curriculum/dsc-knn-intro/) * Distance Metrics [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509610) [[GH]](https://github.com/learn-co-curriculum/dsc-distance-metrics/) * Distance Metrics - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509611) [[GH]](https://github.com/learn-co-curriculum/dsc-distance-metrics-lab/) * K-Nearest Neighbors [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509612) [[GH]](https://github.com/learn-co-curriculum/dsc-k-nearest-neighbors/) * K-Nearest Neighbors - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509613) [[GH]](https://github.com/learn-co-curriculum/dsc-k-nearest-neighbors-lab/) * Finding the Best Value for K [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509614) [[GH]](https://github.com/learn-co-curriculum/dsc-finding-the-best-value-for-k/) * KNN with scikit-learn [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509615) [[GH]](https://github.com/learn-co-curriculum/dsc-knn-with-scikit-learn/) * KNN with scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509616) [[GH]](https://github.com/learn-co-curriculum/dsc-knn-with-scikit-learn-lab/) * Quiz: K Nearest Neighbors [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509617) * Lecture: K-Nearest Neighbors (KNN) (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509618) [[VIM]](https://player.vimeo.com/video/568953890) * KNN Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509620) * Nonparametric ML Models - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509621) [[GH]](https://github.com/learn-co-curriculum/dsc-nonparametric-models-lab/) * K-Nearest Neighbors - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509622) [[GH]](https://github.com/learn-co-curriculum/dsc-knn-recap/)   **Topic 28: Bayes Classification**   * Topic 28 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509623) * Bayesian Classification - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509624) [[GH]](https://github.com/learn-co-curriculum/dsc-bayesian-classification-intro-v2-1/) * Classifiers with Bayes [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509625) [[GH]](https://github.com/learn-co-curriculum/dsc-classifiers-with-bayes/) * Gaussian Naive Bayes [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509626) [[GH]](https://github.com/learn-co-curriculum/dsc-gaussian-naive-bayes/) * Gaussian Naive Bayes - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509627) [[GH]](https://github.com/learn-co-curriculum/dsc-gaussian-naive-bayes-lab/) * Document Classification with Naive Bayes [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509628) [[GH]](https://github.com/learn-co-curriculum/dsc-document-classification-with-naive-bayes/) * Document Classification with Naive Bayes - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509629) [[GH]](https://github.com/learn-co-curriculum/dsc-document-classification-with-naive-bayes-lab/) * Quiz: Bayes Classification [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509630) * Lecture: Naive Bayes (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509631) [[VIM]](https://player.vimeo.com/video/569065219) * Short Video: Naive Bayes by Hand [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509633) [[VIM]](https://player.vimeo.com/video/713802877) * Bayesian Classification - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509635) [[GH]](https://github.com/learn-co-curriculum/dsc-bayesian-classification-recap-v2-1/)   **Topic 29: Model Tuning and Pipelines**   * Topic 29 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509636) * Model Tuning and Pipelines - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509637) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-pipelines-intro/) * GridSearchCV [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509638) [[GH]](https://github.com/learn-co-curriculum/dsc-gridsearchcv/) * Introduction to Pipelines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509639) [[GH]](https://github.com/learn-co-curriculum/dsc-pipelines-v2-1/) * Pipelines in scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509640) [[GH]](https://github.com/learn-co-curriculum/dsc-pipelines-lab-v2-1/) * Refactoring Your Code to Use Pipelines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509641) [[GH]](https://github.com/learn-co-curriculum/dsc-refactoring-with-pipelines/) * Short Video: Pipelines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509642) [[VIM]](https://player.vimeo.com/video/713802989) * Lecture: Model Tuning (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509643) [[VIM]](https://player.vimeo.com/video/571840641) * Model Tuning Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509645) * Pickle [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509646) [[GH]](https://github.com/learn-co-curriculum/dsc-pickle/) * Pickling and Deploying Pipelines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509647) [[GH]](https://github.com/learn-co-curriculum/dsc-pickling-pipelines/) * Model Tuning and Pipelines - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509648) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-pipelines-recap/)   **Topic 30: Ensemble Methods**   * Topic 30 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509649) * Ensemble Methods - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509650) [[GH]](https://github.com/learn-co-curriculum/dsc-ensemble-methods-section-intro/) * Ensemble Methods [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509651) [[GH]](https://github.com/learn-co-curriculum/dsc-ensemble-methods/) * Random Forests [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509652) [[GH]](https://github.com/learn-co-curriculum/dsc-random-forests/) * Tree Ensembles and Random Forests - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509653) [[GH]](https://github.com/learn-co-curriculum/dsc-tree-ensembles-random-forests-lab/) * GridSearchCV - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509654) [[GH]](https://github.com/learn-co-curriculum/dsc-gridsearchcv-lab/) * Lecture: Ensemble Methods: Bagging (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509655) [[VIM]](https://player.vimeo.com/video/572623759) * Bagging Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509657) * Gradient Boosting and Weak Learners [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509658) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-boosting-and-weak-learners/) * Gradient Boosting - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509659) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-boosting-lab/) * XGBoost [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509660) [[GH]](https://github.com/learn-co-curriculum/dsc-xgboost/) * XGBoost - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509661) [[GH]](https://github.com/learn-co-curriculum/dsc-xgboost-lab/) * Quiz: Ensemble Methods [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509662) * Lecture: Ensemble Methods: Boosting (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509663) [[VIM]](https://player.vimeo.com/video/572741124) * Boosting Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509665) * Lecture: Modeling with Pipelines (Flex) [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509666) [[VIM]](https://player.vimeo.com/video/674477700) * Modeling with Pipelines Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509668) * Ensembles - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509669) [[GH]](https://github.com/learn-co-curriculum/dsc-ensemble-methods-section-recap/)   **APPENDIX: More OOP**   * Object Oriented Attributes with Functions [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509695) [[GH]](https://github.com/learn-co-curriculum/dsc-object-oriented-attributes-with-functions/) * Object Oriented Attributes With Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509696) [[GH]](https://github.com/learn-co-curriculum/dsc-object-oriented-attributes-with-functions-lab/) * Object Oriented Shopping Cart - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509697) [[GH]](https://github.com/learn-co-curriculum/dsc-object-oriented-shopping-cart-lab/) * Building an Object-Oriented Simulation [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509698) [[GH]](https://github.com/learn-co-curriculum/dsc-building-an-object-oriented-simulation/) * Building an Object-Oriented Simulation - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509699) [[GH]](https://github.com/learn-co-curriculum/dsc-building-an-object-oriented-simulation-lab/)   **APPENDIX: More Linear Algebra**   * Vector Addition and Broadcasting in NumPy - Code Along [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509700) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-vector-addition-codealong/) * Vectors and Matrices in Numpy - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509701) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-vector-matrices-numpy-lab/) * Properties of Dot Product - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509702) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-dot-product-properties-lab/) * Pure Python vs. Numpy - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509703) [[GH]](https://github.com/learn-co-curriculum/dsc-linalg-python-vs-numpy-lab/)   **APPENDIX: More On Derivatives**   * Rules for Derivatives - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509704) [[GH]](https://github.com/learn-co-curriculum/dsc-rules-for-derivatives-lab/) * Derivatives: the Chain Rule [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509705) [[GH]](https://github.com/learn-co-curriculum/dsc-derivatives-chain-rule/) * Gradient to Cost Function - Appendix [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509706) [[GH]](https://github.com/learn-co-curriculum/dsc-gradient-to-cost-function-appendix/)   **APPENDIX: Support Vector Machines**   * Support Vector Machines - Introduction [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509707) [[GH]](https://github.com/learn-co-curriculum/dsc-svm-intro/) * Introduction to Support Vector Machines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509708) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-support-vector-machines/) * Building an SVM from Scratch - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509709) [[GH]](https://github.com/learn-co-curriculum/dsc-building-an-svm-from-scratch-lab/) * Building an SVM using scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509710) [[GH]](https://github.com/learn-co-curriculum/dsc-building-an-svm-using-scikit-learn-lab/) * The Kernel Trick [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509711) [[GH]](https://github.com/learn-co-curriculum/dsc-the-kernel-trick/) * Kernels in scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509712) [[GH]](https://github.com/learn-co-curriculum/dsc-kernels-in-scikit-learn-lab/) * Support Vector Machines - Recap [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509713) [[GH]](https://github.com/learn-co-curriculum/dsc-svm-recap/) * Quiz: Support Vector Machines [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509714) | **Topic 31: Principal Component Analysis**   * Topic 31 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509729) * PCA - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509730) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-introduction/) * Unsupervised Learning [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509731) [[GH]](https://github.com/learn-co-curriculum/dsc-unsupervised-learning/) * The Curse of Dimensionality [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509732) [[GH]](https://github.com/learn-co-curriculum/dsc-curse-of-dimensionality/) * The Curse of Dimensionality - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509733) [[GH]](https://github.com/learn-co-curriculum/dsc-curse-of-dimensionality-lab/) * Principal Component Analysis in scikit-learn [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509734) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-in-scikitlearn/) * Principal Component Analysis in scikit-learn - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509735) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-in-scikitlearn-lab/) * Integrating PCA in Pipelines - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509736) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-and-pipelines-v2-1/) * PCA for Facial Image Recognition [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509737) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-and-digital-image-processing/) * Image Recognition with PCA - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509738) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-and-digital-image-processing-lab/) * PCA Background: Covariance Matrix and Eigendecomposition [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509739) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-covariance-matrix-eigendecomp/) * Performing Principal Component Analysis (PCA) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509740) [[GH]](https://github.com/learn-co-curriculum/dsc-performing-principle-component-analysis/) * Performing Principal Component Analysis (PCA) - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509741) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-numpy-lab/) * Quiz: Principal Component Analysis [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509742) * Lecture: Principal Component Analysis (PCA) (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509743) [[VIM]](https://player.vimeo.com/video/574993354) * Short Video: Solving an Eigenvalue Problem [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509745) [[VIM]](https://player.vimeo.com/video/713813281) * PCA Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509746) * Dimensionality Reduction - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509747) [[GH]](https://github.com/learn-co-curriculum/dsc-dimensionality-reduction-lab/) * PCA - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509748) [[GH]](https://github.com/learn-co-curriculum/dsc-pca-summary/)   **Topic 32: Recommendation Systems**   * Topic 32 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509749) * Recommendation Systems - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509750) [[GH]](https://github.com/learn-co-curriculum/dsc-recommender-section-intro/) * Introduction to Recommendation Systems [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509751) [[GH]](https://github.com/learn-co-curriculum/dsc-recommendation-system-introduction/) * Collaborative Filtering with Singular Value Decomposition [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509752) [[GH]](https://github.com/learn-co-curriculum/dsc-collaborative-filtering-singular-value-decomposition/) * Matrix Factorization with Alternating Least Squares [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509753) [[GH]](https://github.com/learn-co-curriculum/dsc-matrix-factorization-als/) * Lecture: Singular Value Decomposition (SVD) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509754) [[VIM]](https://player.vimeo.com/video/575551378) * SVD Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509755) * Implementing Recommendation Engines with Surprise [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509756) [[GH]](https://github.com/learn-co-curriculum/dsc-implementing-recommender-systems/) * Implementing Recommender Systems - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509757) [[GH]](https://github.com/learn-co-curriculum/dsc-implementing-recommender-systems-lab/) * Quiz: Recommendation Systems [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509758) * Lecture: Recommendation Systems (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509759) [[VIM]](https://player.vimeo.com/video/575837786) * Recommendation Systems Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509761) * Recommendation Systems - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509762) [[GH]](https://github.com/learn-co-curriculum/dsc-recommendation-section-recap/)   **Topic 33: Clustering**   * Topic 33 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509763) * Clustering - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509764) [[GH]](https://github.com/learn-co-curriculum/dsc-clustering-intro/) * K-means Clustering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509765) [[GH]](https://github.com/learn-co-curriculum/dsc-k-means-clustering/) * K-means Clustering - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509766) [[GH]](https://github.com/learn-co-curriculum/dsc-k-means-clustering-lab/) * Lecture: K-Means Clustering (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509767) [[VIM]](https://player.vimeo.com/video/585509458) * k-Means Clustering Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509769) * Hierarchical Agglomerative Clustering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509770) [[GH]](https://github.com/learn-co-curriculum/dsc-hierarchical-agglomerative-clustering/) * Common Problems with Clustering Algorithms [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509771) [[GH]](https://github.com/learn-co-curriculum/dsc-common-problems-with-clustering/) * Hierarchical Agglomerative Clustering - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509772) [[GH]](https://github.com/learn-co-curriculum/dsc-hierarchical-agglomerative-clustering-codealong/) * Semi-Supervised Learning and Look-Alike Models [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509773) [[GH]](https://github.com/learn-co-curriculum/dsc-semi-supervised-learning-and-look-alike-models/) * Quiz: Clustering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509774) * Lecture: Hierarchical Clustering (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509775) [[VIM]](https://player.vimeo.com/video/585821283) * Short Video: Calculating a Silhouette Coefficient [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509777) [[VIM]](https://player.vimeo.com/video/713813625) * Hierarchical Clustering Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509778) * Market Segmentation with Clustering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509779) [[GH]](https://github.com/learn-co-curriculum/dsc-market-segmentation-clustering/) * Market Segmentation with Clustering - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509780) [[GH]](https://github.com/learn-co-curriculum/dsc-market-segmentation-clustering-lab/) * Clustering - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509781) [[GH]](https://github.com/learn-co-curriculum/dsc-clustering-recap/)   **Topic 34: Exploring Time Series Data**   * Topic 34 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509782) * Exploring Time Series Data - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509783) [[GH]](https://github.com/learn-co-curriculum/dsc-time-series-section-intro/) * Introduction to Time Series [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509784) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-time-series/) * Managing Time Series Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509785) [[GH]](https://github.com/learn-co-curriculum/dsc-managing-time-series-data-lab/) * Visualizing Time Series Data - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509786) [[GH]](https://github.com/learn-co-curriculum/dsc-visualizing-time-series-data-lab/) * Lecture: Time Series Data Manipulation (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509787) [[VIM]](https://player.vimeo.com/video/585918204) * Time Series Data Manipulation Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509789) * Types of Trends [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509790) [[GH]](https://github.com/learn-co-curriculum/dsc-types-of-trends/) * Testing for Trends - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509791) [[GH]](https://github.com/learn-co-curriculum/dsc-testing-for-trends-lab/) * Removing Trends [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509792) [[GH]](https://github.com/learn-co-curriculum/dsc-removing-trends/) * Removing Trends - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509793) [[GH]](https://github.com/learn-co-curriculum/dsc-removing-trends-lab/) * Time Series Decomposition [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509794) [[GH]](https://github.com/learn-co-curriculum/dsc-time-series-decomposition/) * Lecture: Time Series Trends and Stationarity (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509795) [[VIM]](https://player.vimeo.com/video/586022565) * Time Series Trends and Stationarity Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509797) * Exploring Time Series Data - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509798) [[GH]](https://github.com/learn-co-curriculum/dsc-time-series-section-recap/)   **Topic 35: Modeling Time Series Data**   * Topic 35 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509799) * Modeling Time Series Data - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509800) [[GH]](https://github.com/learn-co-curriculum/dsc-time-series-models-introduction/) * Basic Time Series Models [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509801) [[GH]](https://github.com/learn-co-curriculum/dsc-basic-time-series-models/) * Basic Time Series Models - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509802) [[GH]](https://github.com/learn-co-curriculum/dsc-basic-time-series-models-lab/) * Correlation and Autocorrelation in Time Series [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509803) [[GH]](https://github.com/learn-co-curriculum/dsc-corr-autocorr-in-time-series/) * Correlation and Autocorrelation in Time Series - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509804) [[GH]](https://github.com/learn-co-curriculum/dsc-corr-autocorr-in-time-series-lab/) * ARMA Models [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509805) [[GH]](https://github.com/learn-co-curriculum/dsc-arma-models/) * ARMA Models in StatsModels [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509807) [[GH]](https://github.com/learn-co-curriculum/dsc-arma-models-statsmodels/) * ARMA Models in StatsModels - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509808) [[GH]](https://github.com/learn-co-curriculum/dsc-arma-models-statsmodels-lab/) * Quiz: Time Series [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509810) * Lecture: Time Series Modeling (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509811) [[VIM]](https://player.vimeo.com/video/586488820) * Time Series Modeling Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509814) * Lecture: Time Series Modeling Walkthrough (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509816) [[VIM]](https://player.vimeo.com/video/673778366) * Time Series Modeling Walkthrough Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509819) * Modeling Time Series Data - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509820) [[GH]](https://github.com/learn-co-curriculum/dsc-time-series-models-section-recap/)   **Topic 36: Big Data and (Py)Spark**   * Topic 36 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509824) * Big Data and (Py)Spark - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509825) [[GH]](https://github.com/learn-co-curriculum/dsc-big-data-pyspark-intro/) * Introduction to Big Data [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509827) [[GH]](https://github.com/learn-co-curriculum/dsc-big-data-introduction/) * Parallel and Distributed Computing with MapReduce [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509829) [[GH]](https://github.com/learn-co-curriculum/dsc-parallel-and-distributed-computing-with-mapreduce/) * (Py)Spark Basics [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509831) [[GH]](https://github.com/learn-co-curriculum/dsc-spark-basics/) * Lecture: Big Data Introduction (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509834) [[VIM]](https://player.vimeo.com/video/587875077) * Big Data 1 Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509838) * Installing and Configuring PySpark with Docker [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509840) [[GH]](https://github.com/learn-co-curriculum/dsc-spark-docker-installation/) * Understanding SparkContext - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509841) [[GH]](https://github.com/learn-co-curriculum/dsc-sparkcontext/) * Resilient Distributed Datasets (RDDs) - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509842) [[GH]](https://github.com/learn-co-curriculum/dsc-resilient-distributed-datasets-rdd-lab/) * Word Count with MapReduce - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509844) [[GH]](https://github.com/learn-co-curriculum/dsc-word-count-with-map-reduce-lab/) * Spark DataFrames [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509847) [[GH]](https://github.com/learn-co-curriculum/dsc-spark-dataframes/) * Machine Learning with Spark [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509849) [[GH]](https://github.com/learn-co-curriculum/dsc-machine-learning-with-spark-v2-4/) * Machine Learning with Spark - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509852) [[GH]](https://github.com/learn-co-curriculum/dsc-machine-learning-with-spark-lab/) * Quiz: Big Data in PySpark [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509854) * Lecture: Spark (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509856) [[VIM]](https://player.vimeo.com/video/587987811) * Short Video: sklearn to pyspark [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509861) [[VIM]](https://player.vimeo.com/video/713814441) * Spark Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509863) * Building a Recommendation System in PySpark - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509865) [[GH]](https://github.com/learn-co-curriculum/als-recommender-system-pyspark-lab/) * Big Data and (Py)Spark - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509867) [[GH]](https://github.com/learn-co-curriculum/dsc-big-data-pyspark-recap/)   **Topic 37: Natural Language Processing**   * Topic 37 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509869) * Natural Language Processing - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509871) [[GH]](https://github.com/learn-co-curriculum/dsc-nlp-section-intro/) * NLP and Word Vectorization [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509873) [[GH]](https://github.com/learn-co-curriculum/dsc-nlp-and-word-vectorization/) * Word Vectorization - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509874) [[GH]](https://github.com/learn-co-curriculum/dsc-word-vectorization-lab/) * Introduction to NLP with NLTK [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509875) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-nltk/) * Introduction to Regular Expressions [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509878) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-regular-expressions/) * Regular Expressions - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509879) [[GH]](https://github.com/learn-co-curriculum/dsc-regular-expressions-codealong/) * Lecture: NLP Pre-Processing (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509880) [[VIM]](https://player.vimeo.com/video/588059753) * Short Video: The Bag of Words Model [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509882) [[VIM]](https://player.vimeo.com/video/713814376) * NL Pre-Processing Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509883) * Feature Engineering for Text Data [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509884) [[GH]](https://github.com/learn-co-curriculum/dsc-feature-engineering-for-text-data/) * Corpus Statistics - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509885) [[GH]](https://github.com/learn-co-curriculum/dsc-corpus-statistics-lab/) * Context-Free Grammars and POS Tagging [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509886) [[GH]](https://github.com/learn-co-curriculum/dsc-context-free-grammars-and-POS-tagging/) * Context-Free Grammars - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509887) [[GH]](https://github.com/learn-co-curriculum/dsc-context-free-grammars-codealong/) * Lecture: NLP Vectorization (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509888) [[VIM]](https://player.vimeo.com/video/588523868) * Short Video: TF-IDF Vectorization [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509890) [[VIM]](https://player.vimeo.com/video/713724950) * NLP Vectorization Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509891) * Text Classification [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509892) [[GH]](https://github.com/learn-co-curriculum/dsc-text-classification/) * Quiz: Natural Language Processing [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509893) * Lecture: NLP Modeling (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509894) [[VIM]](https://player.vimeo.com/video/588404650) * NLP Modeling Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509896) * Text Classification - Cumulative Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509897) [[GH]](https://github.com/learn-co-curriculum/dsc-nlp-lab/) * Natural Language Processing - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509898) [[GH]](https://github.com/learn-co-curriculum/dsc-nlp-section-recap/)   **Topic 38: Neural Networks**   * Topic 38 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509899) * Neural Networks - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509900) [[GH]](https://github.com/learn-co-curriculum/dsc-neural-nets-intro-v2-4/) * Introduction to Neural Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509901) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-neural-networks/) * Introduction to Neural Networks - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509902) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-neural-networks-lab/) * Lecture: Neural Networks Architecture (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509903) [[VIM]](https://player.vimeo.com/video/588554438) * Neural Network Architecture Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509905) * Introduction to Keras [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509906) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-keras/) * Keras - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509907) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-keras-lab/) * Deeper Neural Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509908) [[GH]](https://github.com/learn-co-curriculum/dsc-deeper-neural-networks/) * Deeper Neural Networks - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509909) [[GH]](https://github.com/learn-co-curriculum/dsc-deeper-neural-networks-lab/) * Image Classification with Multi-Layer Perceptrons [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509910) [[GH]](https://github.com/learn-co-curriculum/dsc-image-classification-with-mlps/) * Image Classification with MLPs - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509911) [[GH]](https://github.com/learn-co-curriculum/dsc-image-classification-with-mlps-lab/) * Quiz: Neural Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509912) * Lecture: Intro to Keras and Tensorflow (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509913) [[VIM]](https://player.vimeo.com/video/591061277) * Short Video: Regression with a Neural Network [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509915) [[VIM]](https://player.vimeo.com/video/713813950) * Intro to Keras and Tensorflow Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509916) * Neural Networks - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509917) [[GH]](https://github.com/learn-co-curriculum/dsc-neural-nets-recap-v2-4/)   **Topic 39: Tuning Neural Networks**   * Topic 39 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509918) * Tuning Neural Networks - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509919) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-intro-v2-4/) * Tuning Neural Networks with Regularization [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509920) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-with-regularization/) * Tuning Neural Networks with Regularization - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509921) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-with-regularization-lab-v2-1/) * Tuning Neural Networks with Normalization [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509922) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-with-normalization/) * Tuning Neural Networks with Normalization - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509923) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-with-normalization-lab-v2-1/) * Tuning and Optimizing Neural Networks - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509924) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-from-start-to-finish-lab-v2-1/) * Lecture: Network Regularization and Evaluation (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509925) [[VIM]](https://player.vimeo.com/video/588891887) * Network Regularization and Evaluation Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509927) * Convolutional Neural Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509928) [[GH]](https://github.com/learn-co-curriculum/dsc-convolutional-neural-networks/) * Convolutional Neural Networks - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509929) [[GH]](https://github.com/learn-co-curriculum/dsc-convolutional-neural-networks-codealong/) * Building a CNN from Scratch - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509930) [[GH]](https://github.com/learn-co-curriculum/dsc-building-a-cnn-from-scratch/) * Visualizing Intermediate Activations [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509931) [[GH]](https://github.com/learn-co-curriculum/dsc-visualizing-intermediate-activations/) * Visualizing Activation Functions - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509932) [[GH]](https://github.com/learn-co-curriculum/dsc-visualizing-activation-functions-lab/) * Lecture: Convolutional Neural Networks (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509933) [[VIM]](https://player.vimeo.com/video/591217917) * CNNs Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509935) * Tuning Neural Networks - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509936) [[GH]](https://github.com/learn-co-curriculum/dsc-tuning-neural-networks-recap-v2-4/)   **Topic 40: Amazon Web Services**   * Topic 40 Lesson Priorities (Live) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509937) * Amazon Web Services - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509938) [[GH]](https://github.com/learn-co-curriculum/dsc-productionizing-machine-learning-models-section-intro/) * Cloud Computing [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509939) [[GH]](https://github.com/learn-co-curriculum/dsc-cloud-computing/) * The AWS Ecosystem [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509940) [[GH]](https://github.com/learn-co-curriculum/dsc-the-aws-ecosystem/) * Amazon Simple Storage Service (S3) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509941) [[GH]](https://github.com/learn-co-curriculum/dsc-aws-s3/) * Introduction to Amazon SageMaker [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509942) [[GH]](https://github.com/learn-co-curriculum/dsc-introduction-to-aws-sagemaker/) * Data Science and Machine Learning Engineering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509943) [[GH]](https://github.com/learn-co-curriculum/dsc-data-science-and-machine-learning-engineering/) * Introduction to Flask [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509944) [[GH]](https://github.com/learn-co-curriculum/dsc-flask-intro/) * Deploying a Model with Flask [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509945) [[GH]](https://github.com/learn-co-curriculum/dsc-flask-deployment/) * Introduction to Dash [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509946) [[GH]](https://github.com/learn-co-curriculum/dsc-dash-intro/) * Deploying a Model with Dash [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509947) [[GH]](https://github.com/learn-co-curriculum/dsc-dash-deployment/) * Productionizing a Model with Docker and SageMaker [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509948) [[GH]](https://github.com/learn-co-curriculum/dsc-productionizing-models-with-sagemaker/) * Lecture: Cloud Services (Flex) [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509949) [[VIM]](https://player.vimeo.com/video/591223840) * Cloud Services Exit Ticket [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509951) * Amazon Web Services - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509952) [[GH]](https://github.com/learn-co-curriculum/dsc-productionizing-machine-learning-models-section-recap/)   **APPENDIX: More Time Series**   * Time Series: SARIMA Models - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509977) [[GH]](https://github.com/learn-co-curriculum/dsc-sarima-models-lab/) * Time Series: Facebook Prophet - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509978) [[GH]](https://github.com/learn-co-curriculum/dsc-facebook-prophet-lab/)   **APPENDIX: Graph Theory (Recommendation Systems)**   * Graph Theory - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509979) [[GH]](https://github.com/learn-co-curriculum/dsc-network-introduction/) * Introduction to Graph Theory [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509980) [[GH]](https://github.com/learn-co-curriculum/dsc-intro-graph-theory/) * Introduction to NetworkX [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509981) [[GH]](https://github.com/learn-co-curriculum/dsc-networkX-intro/) * Introduction to NetworkX - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509982) [[GH]](https://github.com/learn-co-curriculum/dsc-networkX-intro-lab/) * Simple and Shortest Paths [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509983) [[GH]](https://github.com/learn-co-curriculum/dsc-graph-theory-shortest-path/) * Simple and Shortest Paths - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509984) [[GH]](https://github.com/learn-co-curriculum/dsc-graph-theory-shortest-path-lab/) * Node Centrality [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509985) [[GH]](https://github.com/learn-co-curriculum/dsc-node-centrality/) * Node Centrality - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509986) [[GH]](https://github.com/learn-co-curriculum/dsc-node-centrality-lab/) * Network Clustering [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509987) [[GH]](https://github.com/learn-co-curriculum/dsc-network-clustering/) * Network Clustering - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509988) [[GH]](https://github.com/learn-co-curriculum/dsc-network-clustering-lab/) * Network Connectivity: Community Detection -Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509989) [[GH]](https://github.com/learn-co-curriculum/dsc-network-community-detection-lab/) * Recommendation Systems [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509990) [[GH]](https://github.com/learn-co-curriculum/dsc-network-recommendation-systems/) * Amazon Recommendation System - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509991) [[GH]](https://github.com/learn-co-curriculum/dsc-network-recomendation-systems-lab/) * Graph Theory - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509992) [[GH]](https://github.com/learn-co-curriculum/dsc-networks-recap/)   **APPENDIX: Transfer Learning (Image Classification)**   * Transfer Learning - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509993) [[GH]](https://github.com/learn-co-curriculum/dsc-transfer-learning-intro/) * Using Pretrained Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509994) [[GH]](https://github.com/learn-co-curriculum/dsc-using-pretrained-networks/) * Using Pretrained Networks - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509995) [[GH]](https://github.com/learn-co-curriculum/dsc-using-pretrained-networks-codealong/) * Image Classification - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509996) [[GH]](https://github.com/learn-co-curriculum/dsc-image-classification-lab/) * Transfer Learning - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509997) [[GH]](https://github.com/learn-co-curriculum/dsc-transfer-learning-recap/)   **APPENDIX: Deep NLP**   * Deep NLP with Word Embeddings - Introduction [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509998) [[GH]](https://github.com/learn-co-curriculum/dsc-deep-nlp-intro/) * Word Embeddings [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509999) [[GH]](https://github.com/learn-co-curriculum/dsc-word-embeddings/) * Using Word2Vec [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510000) [[GH]](https://github.com/learn-co-curriculum/dsc-using-word2vec/) * Generating Word Embeddings - Lab [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510001) [[GH]](https://github.com/learn-co-curriculum/dsc-generating-word-embeddings-lab/) * Classification with Word Embeddings [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510002) [[GH]](https://github.com/learn-co-curriculum/dsc-classification-with-word-embeddings/) * Classification with Word Embeddings - Codealong [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510003) [[GH]](https://github.com/learn-co-curriculum/dsc-classification-with-word-embeddings-codealong/) * Sequence Model Use Cases [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510004) [[GH]](https://github.com/learn-co-curriculum/dsc-sequence-model-use-cases/) * Understanding Recurrent Neural Networks [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510005) [[GH]](https://github.com/learn-co-curriculum/dsc-understanding-recurrent-neural-networks/) * LSTMs and GRUs [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510006) [[GH]](https://github.com/learn-co-curriculum/dsc-lstms-and-grus/) * Deep NLP with Word Embeddings - Recap [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/510007) [[GH]](https://github.com/learn-co-curriculum/dsc-deep-nlp-recap/) | **First, A Glimpse Post-Capstone: Tech Prep Course!**   * Tech Prep [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509809)   **Welcome**   * Capstone Timeline (Live) [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509813) * Capstone Project Description [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509815) [[GH]](https://github.com/learn-co-curriculum/dsc-capstone-project-v2-3/)   **Resources**   * Capstone Examples [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509821) [[GH]](https://github.com/learn-co-curriculum/dsc-capstone-examples/) * Choosing a Capstone Topic and Dataset [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509822) [[GH]](https://github.com/learn-co-curriculum/dsc-capstone-choosing-a-topic/) * Reproducibility [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509823) [[GH]](https://github.com/learn-co-curriculum/dsc-reproducibility/)   **Flex Capstone Preparation**   * Capstone Brainstorming [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509828) * Capstone Brainstorming Survey [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509830) * Capstone Project Proposal [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509833) * Capstone Project Proposal Example 1 .pdf [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509837) * Capstone Project Proposal Example 2.pdf [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509839)   **Live Capstone Preparation**   * Capstone Timeline (Live) [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509845) * Capstone Brainstorming [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509848) * Capstone Brainstorming Survey [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509850) * Capstone Project Proposal [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509853) * Capstone Project Proposal Example 1 .pdf [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509857) * Capstone Project Proposal Example 2.pdf [[FIS]](https://learning.flatironschool.com/courses/5958/modules/items/509859) |
|  | **Milestones**   * Introduction to Python DataCamp Certification (PDF Upload) [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/494813) * Data Serialization Formats Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492602) * (CodeGrade) EDA with Pandas Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492604) * (CodeGrade) Pandas Data Cleaning Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/500958) * (CodeGrade) SQL Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492607) * Phase 1 Project Description [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492614) [[GH]](https://github.com/learn-co-curriculum/dsc-phase-1-project-v2-4/) * Repository Readability [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492617) [[GH]](https://github.com/learn-co-curriculum/dsc-repo-readability-v2-2/) * Presentation Content [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492618) [[GH]](https://github.com/learn-co-curriculum/dsc-project-presentation-content/) * Slide Style [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492619) [[GH]](https://github.com/learn-co-curriculum/dsc-project-slide-design/) * Phase 1 Project Proposal [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492622) * Phase 1 Project - GitHub Repository URL [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492623) * Phase 1 Project - PDFs [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492624) [[GH]](https://github.com/learn-co-curriculum/dsc-canvas-pdf-instructions/) * Blogging Overview [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492626) [[GH]](https://github.com/learn-co-curriculum/dsc-blogging-overview/) * Phase 1 Blog Post [[FIS]](https://learning.flatironschool.com/courses/5954/modules/items/492627) | **Milestones**   * (CodeGrade) Hypothesis Testing Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507549) * (CodeGrade) Bayesian Statistics Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507551) * (CodeGrade) Phase 2 Code Challenge [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/511035) * Phase 2 Project Description [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507559) [[GH]](https://github.com/learn-co-curriculum/dsc-phase-2-project-v2-5/fork/) * Phase 2 Project Proposal [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507564) * Phase 2 Project - PDFs [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507565) [[GH]](https://github.com/learn-co-curriculum/dsc-canvas-pdf-instructions/) * Phase 2 Project - GitHub Repository URL [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507566) * Blogging Overview [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507568) [[GH]](https://github.com/learn-co-curriculum/dsc-blogging-overview/) * Phase 2 Blog Post [[FIS]](https://learning.flatironschool.com/courses/5955/modules/items/507569) | **Milestones**   * Object-Oriented Programming Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509672) * (CodeGrade) Object-Oriented Programming Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509673) * (CodeGrade) Machine Learning Fundamentals Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509675) * (CodeGrade) Logistic Regression Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509677) * (CodeGrade) Decision Trees Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509679) * Phase 3 Project Description [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509685) [[GH]](https://github.com/learn-co-curriculum/dsc-phase-3-project-v2-3/) * Phase 3 Project - Choosing a Dataset [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509686) [[GH]](https://github.com/learn-co-curriculum/dsc-phase-3-choosing-a-dataset/) * Phase 3 Project Proposal [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509689) * Phase 3 Project - PDFs [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509690) [[GH]](https://github.com/learn-co-curriculum/dsc-canvas-pdf-instructions/) * Phase 3 Project - GitHub Repository URL [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509691) * Blogging Overview [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509693) [[GH]](https://github.com/learn-co-curriculum/dsc-blogging-overview/) * Phase 3 Blog Post [[FIS]](https://learning.flatironschool.com/courses/5956/modules/items/509694) | **Milestones**   * (CodeGrade) Unsupervised ML Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509956) * (CodeGrade) Time Series Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509958) * (CodeGrade) NLP Checkpoint [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509960) * Blogging Overview [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509975) [[GH]](https://github.com/learn-co-curriculum/dsc-blogging-overview/) * Phase 4 Blog Post [[FIS]](https://learning.flatironschool.com/courses/5957/modules/items/509976) |  |