



College of Engineering & Applied Sciences

CSPB 3022

Introduction To Data Science With Probability And Statistics

Class Notes

UNIVERSITY OF COLORADO

2024

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Week 1: (1/15 - 1/21)

Data Science Lifecycle, Python And Pandas

1.0.1 Assigned Reading

The reading assignment for this week is:

- Learning Data Science: Chapter 1
- Python For Data Analysis: Chapter 5

1.0.2 Piazza

Must post / respond to two Piazza posts. (1/23/24)

1.0.3 Lectures

The lecture videos for this week are:

- Course Overview \approx 54 min.
- Pandas Part 1 \approx 54 min.
- Pandas Part 2 \approx 54 min.
- Python Walkthrough \approx 47 min.
- Learning to Use Jupyter Notebooks \approx 9 min.
- Using Markdown In Jupyter Notebooks \approx 11 min.
- Writing Mathematics In Jupyter Notebooks \approx 16 min.
- Beginning Python \approx 44 min.
- Python - Basic NumPy \approx 18 min.
- Quick Calculus Refresher \approx 21 min.

The lecture notes for this week are:

- Course Overview Data Science Lifecycle
- Pandas Part 1
- Pandas Part 2
- L^AT_EX

1.0.4 Assignments

The assignment for this week is:

- The assignment for this week is **Data Science Lifecycle, Python And Pandas**. (1/23/24)

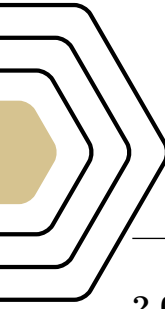
1.0.5 Quiz

The quizzes for this week are:

- Math Concept Quiz • Finalized Math Concept Quiz (1/30/24)

1.0.6 Chapter Summary





Pandas, Exploring And Cleaning Tabular Data

2.0.1 Assigned Reading

The reading assignment for this week is:

- Python For Data Analysis: Chapter 5

2.0.2 Piazza

Must post / respond to two Piazza posts. (1/30/24)

2.0.3 Lectures

The lecture videos for this week are:

- Pandas Part 3 \approx 54 min.
- Pandas Part 4 \approx 54 min.
- Discussion 2 Video Walkthrough: Basics with Pandas and In-Depth with NumPy \approx 73 min.

The lecture notes for this week are:

- Pandas Part 3
- Pandas Part 4
- Permutations And Combinations
- Section 7.1 Intro To Discrete Probability
- Section 7.2 Probability Theory And Applications

2.0.4 Assignments

The assignment for this week is:

- The assignment for this week is **Pandas, Exploring And Cleaning Tabular Data**. (1/30/24)

2.0.5 Quiz

The quizzes for this week are:

- Python And Pandas Quiz • Finalized Python And Pandas Quiz (1/30/24)

2.0.6 Chapter Summary