Introduction to Data Science

Lesson 1
Introduction

Marija Stankova Medarovska, PhD
marija.s.medarovska@uacs.edu.mk

Introduction to the Course

Learning Objectives

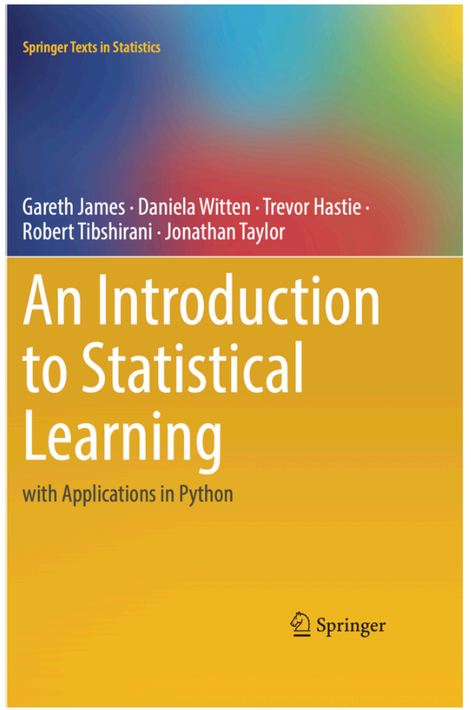
- Understand the theoretical foundations of data science
- Recognize how to approach problems from a data-driven perspective and understand the principles of extracting useful knowledge from data
- Familiarize with the data science workflow, including data collection, data preparation, analysis, modeling and visualisation techniques.
- Gain hands-on experience through weekly Software Labs and a Course Project

Structure of the Course

- Schedule:
  - Lectures: Tuesday 09:00h - 11:00h (Lab1)
  - Software Labs: Tuesday 08:00h - 20:00h (Online)
- Office Hours: Thursday 13:30h - 15:30h (Office 13)
- Course site on Moodle (UACS Moodle)
- Guest Lectures

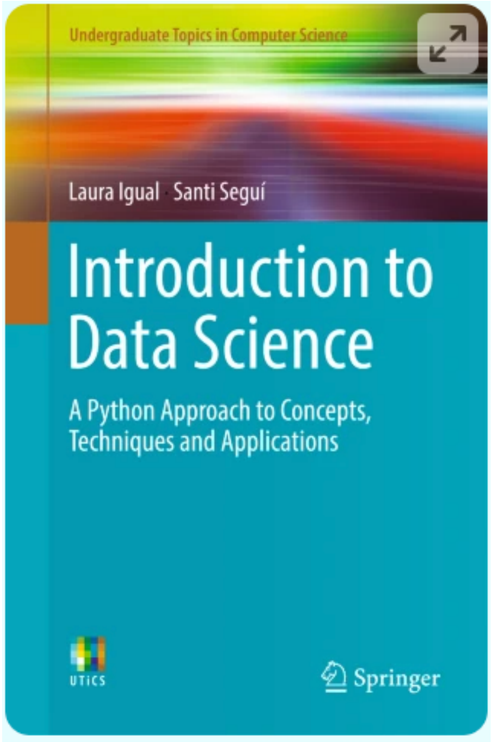
Literature (1)

- Book: An introduction to statistical learning: With applications in python, 2023,
- Authors: Gareth James, Daniela Witten, Trevor Hastie, Rob Tibshirani and Jonathan Taylor
- Official Website: https://www.statlearning.com/
- Additional materials available on Moodle



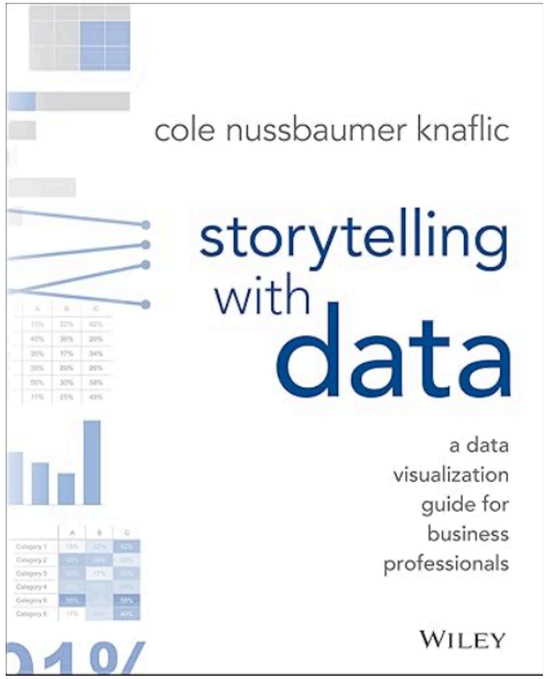
Literature (2)

- Book: Introduction to Data Science: A Python Approach to Concepts, Techniques, and Applications, 2017
- Authors: Laura Igual and Santi Seguí
- GitHub Repository: https://github.com/DataScienceUB/introduction-datascience-python-book
- Additional materials available on Moodle



Literature (3)

- Book: Storytelling with Data: A Data Visualization Guide for Business Professionals, 2015
- Authors: Cole Nussbaumer Knaflic
- Official Website: https://www.storytellingwithdata.com/
- Additional materials available on Moodle



Course Grading

- Attendance and Class Participation (10%)
  - Electronic attendance on Moodle
- Course Project (30%)
  - Second half of the course, individual work
- Midterm (30%), Final Exam (30%)

Appendix