Course Preview

Data Analytics Foundations for Accountancy I

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> Introduces students to the basic concepts needed to complete common data analytic tasks in accountancy and business in general.

About this course

Students learn to develop data analytic scripts with the Python programming language and the standard data analytic Python modules, including Pandas, NumPy, SciPy, Matplotlib, and Seaborn. The course is a set of Jupyter notebooks in eight modules. Each module opens with an overview and learning objectives, then has two or three lessons with readings, videos and worked code, and ends with an assignment.

Course outline

Module 1 **Foundations**	Introduction to Data Analytics; Introduction to Course Server; Introduction to Markdown
Module 2 **Introduction to Python**	Introduction to Python; Introduction to Python Functions; Python Conditional Statements
Module 3 **Introduction to Python Programming**	Introduction to Python Data Structures; Introduction to Python Loops; Working with Python Data Structures
Module 4 **Python Programming**	Python Functions: Advanced Concepts; Writing Python Programs; Introduction to NumPy
Module 5 **Introduction to Data Persistence**	Introduction to Unix; Python File I/O; Python Data Persistence
Module 6 **Introduction to Data Analysis**	Introduction to Pandas; Working with the Pandas DataFrame; Introduction to Descriptive Statistics
Module 7 **Introduction to Visualization**	The Importance of Data Visualizations; Introduction to Plotting in Python; Introduction to Data Visualizations in Python
Module 8 **Exploring Two-Dimensional Data**	The Quantitative Display of Information; Introduction to Scatter Plots

At a glance

Type
Course

Audience
Faculty

Discipline
Accounting

Also relevant to
Programming, Statistics

Skills
Basic Programming, Exploratory Data Analysis, Visualization

Software
Python

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A look inside

The first module, as students see it in the course notebooks.

Module 1: Foundations

This module serves as the introduction to the course content and the course Jupyter server, where you will run your analytics scripts. First, you will read about specific examples of how analytics is being employed by Accounting firms. Next, you will learn about the capabilities of the course Jupyter server, and how to create, edit, and run notebooks on the course server. After this, you will learn how to write Markdown formatted documents, which is an easy way to quickly write formatted text, including descriptive text inside a course notebook.

Learning Objectives

By the end of this module, you should be able to:

- appreciate the importance of data analytics in accountancy,
- work effectively with a Jupyter notebook on the course server, and
- write basic markdown encoded documents.

Activities and Assignments

Activity	Time Estimate
Module 1 Overview Video	10 Minutes
Module 1 Lesson 1: Introduction to Data Analytics	1 Hour

Preview ends here. The full course continues with the rest of Module 1 and Modules 2 to 8.

What is included

To share with students

- 8 modules of Jupyter notebooks: overviews, 23 lessons and worked examples
- 8 assignments with their data files

For instructors only

- Instructor guide (PDF)

Get the full course

Free with an account on the Center website. Scan the code or visit

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For instructors

Choose Instructor when you sign up. Instructor materials are shared once your instructor status is verified.