

Individual Assignment RE: Statistics Portfolio

Version 1.1

In this individual assignment, you will complete a portfolio of Python notebooks that cover different statistical subjects. You will then be invited to an explainer session with your Core Lecturer during which you explain and justify your solutions to the notebook.

You can submit the notebooks on Canvas for progress checks and intermediate feedback moments. Make use of this early on to get time to correct mistakes. Your final submission is also submitted through Canvas.

Be aware that anything you submit in the week of the final deadline (starting Monday, May 5) will be considered your FINAL submission. If you decide not to submit a new portfolio assignment in that week, then your last “Progress Check” submission will count as final.

Key Dates and Deadlines

Friday, May 9, 2025 (17:00)	Final portfolio submission (see progress checks below)
Monday, May 19, 2025 (11 – 13:00)	Mock portfolio discussions
Week 15 and Week 16 Scheduled with your CL	Explainer session

Portfolio: Individual Challenge notebooks

The portfolio consists of the following two notebooks. These notebooks contain explanations and links to resources for each of the topics covered. Self-guided study and participation in relevant workshops and lectures is required to learn the subjects covered. These notebooks prepare you for the explainer session; make sure you truly understand the concepts behind the tasks you complete and the explanations that you provide.

1. Hypothesis development and multiple regression (Progress check **7 April 2025, 17:00**)
2. T-test and chi-squared test (Progress check **25 April 2025, 17:00**)

Assessment Criteria: Portfolio

- Both Individual Challenge notebooks have been submitted for the progress checks
- The Interpretation questions are answered in a succinct yet comprehensive way
- (Although this is not assessed at this stage, writing clear and legible code and text will help you during the explainer session)

Explainer Session

Your grade will largely be determined by this 15-minute conversation with your CL. If you have not fully completed both notebooks for the final portfolio submission, the grade you can achieve may be capped.

You will have a workshop prior to this session in which you will practice an Explainer session with fellow students.

The format of the session itself is straightforward: Your CL will ask you to justify or explain some of the choices you made or answers you gave in your portfolio.

Assessment Criteria: Explainer Session

- Ability to explain all code and textual answers given in the portfolio
- Understanding of the statistical concepts covered by the portfolio
- Critical reflection on choices made in the various exercises
- Clear communication and knowledge of the statistical terms covered

Learning Objectives

- Analyse quantitative data using descriptive statistics
- Developing hypotheses and testing them with an appropriate statistical method
- Compare groups using appropriate statistical methods
- Assess the influence of independent variables on dependent variables using inferential statistics
- Carrying out t-tests, chi-squared tests, and (multiple) regression analysis

Version History:

Jan. 28, 2025 – V1.0

Feb. 10, 2025 – V1.1: Progress Check deadline for the first individual challenge notebook is changed from 28 March 2025 to 7 April 2025.