Semester 2 Welcome

Data Analysis for Psychology in R 1

Semester 2, Week 1

Department of Psychology
The University of Edinburgh

Semester 1 recap

S1 weeks 1-5

- Lecturer: Dr Patrick Sturt

- **Block 1: Exploratory Data Analysis**

  - Collecting Data & Types of Data

  - Describing and Visualising Categorical Variables

  - Describing and Visualising Numeric Variables

  - Describing and Visualising Relationships

  - Types of Relations (functions)

- **Formative report A**

- Week 6: Feedback on Formative Report A

  - You should have studied the example Rmd and PDF solutions

S1 weeks 7-11

- Lecturer: Dr Monica Truelove-Hill

- **Block 2: Probability**

  - Probability Theory

  - Probability Rules

  - Discrete Random Variables

  - Continuous Random Variables

  - Sampling Distributions

- **Formative report B**

- Week 12: Feedback on Formative Report B

  - You should have studied the example Rmd and PDF solutions

Things we hope you did last semester

Engage with course materials

- Complete the weekly quizzes

- Attend lectures and complete any lecture activities or readings

- Work through the lab tasks and complete the formative reports

- Attend office hours for one-to-one support

- Write any outstanding questions on the discussion forum

RStudio skills

- Basic arithmetic operations

- RStudio functionality

- Data exploration in R

- RMarkdown reporting

- ggplot!

A map of semester 2

S2 weeks 1-5

- Lecturer: Dr Umberto Noè, FHEA

- **Block 3: Inference**. How do we use data from a sample (i.e. a subset) to draw conclusions for the wider population (for which we don't have the full data)?

  - Confidence Intervals

  - Hypothesis Testing: P-values

  - Hypothesis Testing: Critical Values

  - Hypothesis Testing & Confidence Intervals

  - Making Decisions (Effect Sizes, Power, Errors)

- **Formative Report C**

- FLW: Feedback on Formative Report C

S2 weeks 6-10

- Lecturer: Dr Emma Waterston, FHEA

- **Block 4: Common hypothesis tests**

  - One Sample t-Test

  - Independent Samples t-test

  - Paired Samples t-test

  - Chi-square tests

  - Covariance and correlation

- **Assessed Report**

- Week 11: Drop-in style labs for you to ask questions while revising for the exam

Formative report C (S2 Weeks 1-5)

- Group-based report, as in the previous two practice reports

- This is the last practice report

- **Due: 12 noon, Friday 16th February 2024**

- You must have joined a group by the end of week 3. No group changes allowed after week 3.

Assessed report (S2 Weeks 6-10)

- The assessed report is worth 30% of final DAPR1 grade

- To be done in groups (same groups as Formative Report C)

- Only one person per group submits on behalf of the entire group

- No extensions allowed as this is group work based

- **Due: 12 noon, Friday 29th March 2024**

- Once the report has been graded, each student's grade will be adjusted (up or down) based on their contribution as rated by their peers.

- Don't plagiarise!

    - You cannot share information with a different group
    - You cannot share code with a different group
    - You cannot use code from another group and add your own write-up
    - You cannot plagiarise example solutions

Exam information (60% of final grade)

- Main Exam Diet (April/May). Exact date/location will be announced by the timetabling unit. Format:

  - In-person written exam in an exam hall, closed-book
  - 2 hours long
  - 60 multiple choice questions (MCQs)

- Bring your student ID card for identification.

- What you can bring (in a transparent bag):

  - A calculator
  - Pencils (multiple!)
  - Eraser
  - Pencil sharpener

- You will be provided with:

  - The exam questions paper
  - An MCQ answer sheet
  - Script book for rough work
  - An equation sheet (you cannot bring your own one)

- You **cannot** take any of the four papers above outside the room.

Folder: Final Exam Information

See:

- LEARN > Assessment > Final Exam Information

You will find:

- Equation sheet

    - Familiarise yourself with the equation sheet, you will be provided with a copy in the exam hall

    - Note: the sheet may change slightly over the course of the semester. Changes will be announced and the folder will always show the most up-to-date version.

- Mock exam

    - A file with a few example questions will be added to this folder later in the semester, and an announcement will be sent when this has happened.

    - Remember, the exam will have 60 multiple choice questions!