

Inf2 – Foundations of Data Science
S2: Exam revision session



THE UNIVERSITY *of* EDINBURGH
informatics

FOUNDATIONS
OF
DATA
SCIENCE

Agenda

- Questions about the exam format
- Questions about the sample exam
- Any other questions

Exam format

- Counts for 50% of the final course mark
- Lasts 2 hours (with extra time for students with exam-related adjustments)
- Will have a range of questions types: short answer, multiple choice, calculations and longer answer
- Is a NOTES PERMITTED, CALCULATORS PERMITTED examination. Candidates may consult up to ONE A4 page (2 sides) of notes.
- CALCULATORS MAY BE USED IN THIS EXAMINATION

Exam background

- All questions in the exam will relate (at least to some extent) to
 - Bornioli, A. et al. (2021). "Body dissatisfaction predicts the onset of depression among adolescent females and males: a prospective study". *Journal of Epidemiology and Community Health* 75:343-348
 - Paper was discussed in the Semester 2 Week 2 workshops.
 - Paper will be appended to exam paper,
 - We will indicate in questions where you need to look at the paper.

Questions

1. Storing, manipulating, summarising, and visualising data (12 marks):

- Questions applying what you learned in Part I of the course.
- No question about the Lie Factor.

2. Descriptive and inferential statistics and machine learning (23 marks):

- **Relates to Parts II, III, IV and V of the course**
- **A few parts have numeric answers**, requiring the sort of computations that you did for the workshop exercises. Relevant statistical tables will be provided.
- Any questions about linear **or logistic** regression or inference will not involve the maximum likelihood derivation of linear or logistic regression.
- We will not ask for the derivation of PCA

3. Critical evaluation and ethics (15 marks)

- **Will relate to critical evaluation and ethics of the Borniloi et al. Paper.**
- In principle, any part of the course may be relevant for this question, apart from material that we've marked as non-examinable in the lecture notes or the lectures.

Revision resources highlights

- We've provided Revision resources on the Revision page on the course website. In particular:
 - In Learn there is a class test from 2023/24 in the **Assessment->Previous examples of Assessment** folder that you can take as many times as you want.
 - The comprehension questions are still available
 - Writing your one page (two sides) of notes for the exam is a great way of revising.
 - Sample exam and solutions in the **Learn Assessment** folder

Questions about the sample exam

Any other questions