SCEM Coursework - Introduction

Assessment deadline (excluding extensions)

(*This date represents the general due date. If you have an extension, please check eVision for adjusted dates specific to you.*)

The coursework deadline is set as **4 December 2025, 13h GMT**. Please aim to finish at least 48h before that, to prevent last-minute problems and allow the time to request an extensions if something unexpected comes up (such as illness, accidents, etc.). Please be aware that university regulations don't allow extension requests to be submitted in the last 48h before the deadline.

Please also note that late submissions will incur penalties. From this academic year (2025/26), under Article 24.3 of the Regulations and Code of Practice for Taught Programmes (https://www.bristol.ac.uk/academic-quality/assessment/regulations-and-code-of-practice-for-taught-programmes/penalties/#:~:text=University%20closure%20days.-,if%20the%20work%20is%20not%20submitted%20by%20the%20end%20of%20the%20late%20submission%20period%2C%20the%20assessment%20will%20be%20considered%20to%20be%20a%20non%2Dsubmission.,-For%20assessments%20in), **work submitted more than 96 hours after the deadline (or your extended deadline)** will not be marked and will count as a **non-submission**.

Assessment outline

This is an **individual and independent** coursework. You should not share your solution with any of your colleagues. The experience of solving the problems in this project will prepare you for real problems in your career as a data scientist.

- If someone asks you for the answer, **resist**! If they insist, speak to your unit director.
- If you are the one thinking about asking someone else for *their* answer, **don't**! Instead, have a chat with the teaching team: there's enough support available for you to be able to complete the assessment yourself.

Please note that sharing coursework solutions would fall under the definition of collusion (see UoB regulations (https://www.bristol.ac.uk/students/support/academic-advice/academic-integrity/collusion/)), which is considered a breach of academic integrity and could impact your degree negatively.

While this is an individual task that you should complete independently, there is a lot of support available if you need it. If you are unclear about what is required for any part of the assessment, then discuss this issue with the teaching team in the computer lab or the discussion board on our Blackboard page.

This coursework needs to be completed using **R,** and consists of two two independent tasks.

- **Task I** is a more scripted one, with very strictly defined instructions. It consists of activities related to designing, running and analysing a comparative experiment.
- **Task II** has generally defined steps, but it is slightly less scripted. In this task, you are expected to use the knowledge you acquired throughout the unit (particularly in lectures/labs 7, 8 and 9) to build your own solution to a predictive modelling / supervised learning task.

For both tasks, please make sure to **read the instructions carefully and follow them closely**. These specific instructions are provided to simulate the requirements that a domain expert (or another stakeholder) would communicate to you as a data scientist. Having good attention to detail is an essential part of data science, and it's something that is also being assessed in this CW.

Assessment submission

Please use the submission point available in Blackboard. For each task, you need to submit your solution using the solution templates provided. Here is a list of the files that you need to submit:

- **Task01.Rmd**, containing your solution to Task I using the predefined template.
- **Task01.pdf**, the PDF produced as a result of "knitting" Task01.Rmd.
- **Task02.Rmd**, containing your solution to Task II using the predefined template.
- **Task02.pdf**, the PDF produced as a result of "knitting" Task02.Rmd.
- **mypreds.rds,** containing the predictions of your Task II model on the "new" data (see the description of Task II for details)

Academic integrity

Before starting this assessment, please read the University's information about academic integrity (http://www.bristol.ac.uk/students/support/academic-advice/academic-integrity/).

Generative AI Category

Please be aware that the use of generative AI tools to complete any portion of this assessment is considered cheating and therefore prohibited. The marking team will actively test for indicative signatures of the utilisation of generative AI. In terms of UoB's regulations on the use of AI for assessments (https://www.bristol.ac.uk/bilt/sharing-practice/guides/guidance-on-ai/using-ai-in-assessment/), this coursework falls under **Category 2 (minimal use)**. Please make sure that you are familiar with these regulations.

Marking criteria

Detailed marking criteria are provided in documents "Marking scheme - Task01.xlsx" and "Marking scheme - Task02.xlsx", available on Blackboard

Learning and feedback connections

- Task I builds mainly upon Lectures / Labs 4, 5 and 6.
- Task II builds mainly upon Lectures / Labs 7, 8 and 9.

Make sure to use your experience from the lab sessions, as well as the model answers provided, to support your coursework development.

Intended Learning Outcomes

This coursework covers all intended learning outcomes of the unit.