MATH514
Contemporary Issues in Data Science
Coursework 2023–24

Coursework Information

The Coursework for MATH514 will take the form of a **poster**.

Please read the following notes before working on the poster:

- The **deadline** for this assignment is **Monday, 22nd April, 2024 at 15:00**. You should submit your work through the MATH514 Contemporary Issues in Data Science DLE site.
- **This is a group coursework. Please work in self-assigned groups of up to four people.**
- Along with this assignment, you need to submit the **minutes of 4 of the meetings you have held to produce the poster**, where each time a different member of the group is chair and minute-taker. Please note that 5 marks are allocated to the submission of all the Minutes.
- You should keep notes of all your meetings. Each member of the group will receive the same mark, unless any member chooses to make use of the Peer Assessment option. If you wish to make use of the Peer Assessment option, you will need to contact the Module Leader **Dr Luciana Dalla Valle** by **Friday, 19th April, 2024** to make an appointment.
- This poster counts for 100% of your final mark on this module. Marks will be assigned according to the marking grid on page 6.
- Please note that 5 marks are allocated to the submission of the Ground Rules Contract for your group by the 22nd February, 2024 at 10:00, as discussed in class and as explained on the DLE.
- Your poster should be prepared using R/RStudio and associated packages, and reported using R Markdown. You will be required to submit working and annotated R/R Markdown code which will be also assessed for correctness, quality and clarity of presentation.
- You will **present your poster** at the School of Engineering, Computing and Mathematics (SECaM) Project Showcase on **Thursday, 2nd May at 9:00-13:00**.
- Please note that you will have to be present at your poster and explain it to people from a variety of backgrounds, from academia and industry.
- Assessments will be marked within 20 working days of the submission date. In particular, you will get full feedback on your work by June 3rd, 2024.

The relevant MATH514 Assessed Learning Outcomes (ALOs) for this assignment are:

ALO1 Demonstrate a deep understanding of key issues in data science, including up-to-date developments in this area;

ALO2 Synthesise and critically evaluate current research and advanced scholarship in data science.

ALO3 Communicate conclusions clearly to specialist and non-specialist audiences.

You should keep these ALOs in mind when working on this presentation.

You are reminded of the University's Academic Regulations:

Academic offences occur when activity is undertaken which could confer an unfair advantage to any candidate(s) in assessment. The University recognises the following (including any attempt to carry out the actions described) as academic offences, regardless of intent:

a. Plagiarism, which is copying or paraphrasing of other people's work or ideas into a submitted assessment without full acknowledgement. More information on plagiarism is available here:
`https://www.plymouth.ac.uk/student-life/your-studies/essential-information/regulations/plagiarism`

b. Collusion, which is unauthorised collaboration of students (or others) in producing a submitted assessment. The offence of collusion occurs if a student copies any part of another student's work, or allows their own work to be copied. Collusion also occurs if other people contribute significantly to work that a student submits as their own.

The complete list of regulations can be found here:
`https://www.plymouth.ac.uk/student-life/your-studies/essential-information/regulations`

By submitting this practical assessment, all the group members confirm that they have understood the University's policy on plagiarism and collusion.

Your Task

You are asked to prepare a scientific poster suitable for display at a conference for a general audience.

This should be on a topical contemporary issue in Data Science.

It may focus on one of the topics presented by the speakers in one of the lectures given in class.

Your poster should include a small data analysis.

You will be asked to submit your poster in a pdf format on the DLE and to present it at the SECaM Project Showcase.

Instructions for Preparing your Poster

- Choose a topical data science issue of your choice.
- This is a scientific conference style presentation.
- Target audience: scientists and industrialists of varied background. Your poster should report your findings in a well structured and coherent way that is suitable for a general audience.
- Posters should be produced in portrait format. Posters in landscape cannot be accommodated.
- You should prepare your poster using R Markdown. Please remember to build up your R Markdown poster step by step, adding a small amount of code at a time. If you include in your R Markdown file a large amount of code, it probably will not work.
- Posters should communicate your message as simply as possible – do not allow it to become clogged with too much detail. Your poster should look interesting and elegant. It needs to be well explained (this refers to its content, imagery and the level of English used).
- Use fewer words and use figures, photographs and diagrams to break up the density of the text.
- Include your group number and highlight the authors' name and contact information in case the viewer is interested in more information.
- Prepare diagrams or charts legibly in a size sufficient to be read at a distance of 2 meters.
- Be creative by using different font sizes, styles, and colors for paragraph and figure captions.
- When working with graphs or charts, use different colors and textures/symbols.
- Organize the presentation so it is clear, orderly, and self-explanatory.
- Use different sections to group similar ideas. Avoid cluttering your poster with too much text.
- Include the background of your research followed by results and conclusions. A successful poster presentation depends on how well you convey information to an interested audience.
- Conclude adding a reference section to your poster and include citations to the references in the text.

Submission

One member of your group needs to submit the following **six files** electronically using the online submission facility on the DLE by **Monday, 22nd April, 2024 at 15:00**:

- The `pdf` file containing your poster, named
  `Poster_First.Second.Third.Fourth.StudentID.pdf`
  where you substitute in the Student Identification Numbers of all group members.
  For example,
  `Poster_11034023.12504043.12830176.13643987.pdf`.
- The R Markdown file that produces your poster, named in a similar way.
  For example, `Poster_11034023.12504043.12830176.13643987.Rmd`
- The minutes of four of your meetings, named similarly as explained above. For example,
  - `Minutes1_11034023.12045043.12830176.13643987.docx`
  - `Minutes2_11034023.12045043.12830176.13643987.docx`
  - `Minutes3_11034023.12045043.12830176.13643987.docx`
  - `Minutes4_11034023.12045043.12830176.13643987.docx`

Please ask if you do not clearly understand these submission instructions.

Note 1: You should **not submit any other files** on the DLE (including any images/photos you might have included in your poster).

Note 2: Please **do no submit your files in any other zipped folder or sub-folder**, otherwise you will be penalized: 5 marks are allocated to the correct submission of the required files.

MATH514 Contemporary Issues in Data Science
Coursework Marking Criteria

POSTER PRESENTATION

Student Name……

	90%+	70-89%	60-69%	50-59%	40-49%	39% or less
Content (40%)						
Poster content (Could someone get an idea of the project just by reading it?)	Extremely clear	Clear	Good	Brief	Very brief	Extremely brief
Appearance. Is it engaging? Is it legible?	Very attractive and very well structured	Attractive and good structure	Generally attractive and well structured	Mostly attractive and structured	Some structure and partly attractive	Poorly structured and unappealing
Presentation, Communication and Questions (60%)						
How well did the student explain their project? ("So what was your project about?")	Extremely good summary	Very good summary	Good summary	Mostly good summary	Reasonable	Poor summary
How well did the student answer specific questions?	Extremely good answers to all questions	Very good answers to all questions	Very good answers to most questions	Good answers to most questions	Adequate answers to some questions	Unable to provide answers to most questions

MATH514 Contemporary Issues in Data Science
Coursework Marking Grid

Assessment Area	Maximum Mark	Awarded Mark	Feedback
Ground Rules Contract: submission by 22/02/24 at 10:00	5		
Submission of the minutes of four of your meetings	5		
Submission of the correct file formats	5		
Poster content	17		
Poster appearance	17		
Poster explanation	26		
Answer to questions	25		
Total	100		