CS7DS3: Applied Statistical Modelling

Logistics & Structure Outline

Arthur White
CS7DS3 Overview

- Instructor: Arthur White
- Email: arwhite@tcd.ie
- Office: Room 144, Lloyd Building
  - I am not in my office now and for foreseeable future
  - I can meet you remotely using Zoom, Teams, etc. Email me to schedule a meeting
- Class page: scss.tcd.ie/~arwhite/Teaching/CS7DS3.html
- All material will appear on blackboard too
Pre-requisites

• Formally, none.
• Probability concepts: (distribution of random variables, expectations, variances, Bayes's theorem...) We will review this.
• Be familiar with R (Python may also be useful, but is not my preference.)
• Some material will overlap CS7DS1 and CS7DS4, although the spirit and emphasis will be different.
Basic Schedule

• **Video Lectures**
  • Monday 1pm and Wednesday 4pm
  • Uploaded to blackboard and links shared online
  • Supporting material (pdfs, case studies, etc.) will be made available at same time.

• **“Office Hours”**
  • Wednesday 4pm
  • Using Collaborate Ultra or Microsoft Teams

• I may arrange live feedback/Q & A sessions later in semester in place of a lecture if that will be helpful.
Online resources

• Several resources on blackboard:
  • Videos
  • Collaborate Ultra sessions
  • Discussion board

• Your interaction and feedback is crucial

• arwhite@tcd.ie
Communication

• Announcements will be made at the start of every week

• Please ask questions by email or on the class Discussion Boards
  • Create new threads or join existing ones
  • I will endeavour to answer all questions (regardless of topic) within 5 working days

• Please be respectful to me and each other in all interactions

• In general, I encourage you to keep in touch with another – especially class rep
Online resources

- Case studies will accompany many video lectures. These will apply the methods discussed in a practical setting, much like a lab.
- These will use R.
- You should download R, and Rstudio
  - http://www.r-project.org/
  - https://www.rstudio.com/home/
- Both are open source and free to download
- You will also need Word, or similar (LaTeX and Markdown are also good options) for your main assignment.
- Python is an option, but will not be supported by me
Assessment

This module is assessed **100%** by coursework, i.e., **no exam**.

Two small assignments worth 15% each. These will be problem sets.

Main assignment will be worth 70%. This will be a 10 page report describing a detailed analysis of a complex data set.

All assignments will be submitted through Turnitin
Assessment Schedule – Provisional

• Short Assessment 1 – assigned Week 4

• Main assignment – assigned end Week 6/beginning Week 7
  • I would suggest you work on this in stages and talk to me about your thoughts/ideas.

• Short Assessment 2 – assigned Week 11.

• You will have a lot of time to do the main assignment – max allowable. Deadlines for short assignments may be shorter.

• Communication is important here – I encourage the class and especially class rep to stay in touch with me

• We can talk in more detail about the assignments when they are released.
There is no compulsory textbook for this course, but the following cover different aspects of the material:

Questions?
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