CS7DS3: Applied Statistical Modelling

Logistics & Structure Outline
Arthur White
CS7DS3 Overview

- Instructor: Arthur White

- Email: arwhite@tcd.ie

- Office: Room 144, Lloyd Building
  - Email me to schedule a meeting
  - I can also meet you remotely using Zoom, Teams, etc.

- Class page: scss.tcd.ie/~arwhite/Teaching/CS7DS3.html

- All material will appear on blackboard too
Pre-requisites

- CS7DS1 (Data Mining & Analytics), CS7CS4 (Machine Learning). Material will overlap although the spirit and emphasis will be different.
- Probability concepts. We will review these.
  - Random variables
  - Expectation and variance
  - Bayes's theorem
- Familiarity with R (Python may also be useful, but is not my preference.)
Basic Schedule

Lectures
• Monday 1pm and Wednesday 4pm
• In class lectures.
• Supporting material (pdfs, case studies, etc.) will be made available at same time.
Communication

• Discussion board
  • Ask any/all questions here
  • Create new threads or join existing ones
  • Anonymous questions are fine
  • Please be respectful to me and each other in all interactions

• Your interaction and feedback are crucial
  • In general, I encourage you to keep in touch with another – especially class rep

• arwhite@tcd.ie
Online resources

• Case studies available starting Week 2.
• These will apply the methods discussed in a practical setting, much like a lab and are directly relevant to assignments.
• 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.
There is no compulsory textbook for this course, but the following cover different aspects of the material:


Questions?
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