Biostatistics (MATH11230)

Vanda Inácio

University of Edinburgh

Semester 1, 2022/2023

General information

- **Lecturer**: Vanda Inácio
- **Email**: vanda.inacio@ed.ac.uk
- **Office**: 4601, JCMB.
- **Lectures and location**: Tuesday, 14.10–16.00 (there will be a 10 min. break from 15.00 to 15.10), 5326, JCMB.
- **Workshops**: Tuesday, 17.10–18.00, on odd weeks (weeks 3, 5, 7, 9, and 11), 5326, JCMB.

General information

- **Office hours**: Thursday, 10.00–11.00, week 1–11.
- The first half of the office hours, 10.00–10.30, will be on Zoom, and the second half, 10.30–11.00, will be on my office.
- Information to join the Zoom meeting is as follows:

`https://ed-ac-uk.zoom.us/j/84682858682`

Meeting ID: 846 8285 8682

Passcode: EG4XbV1e

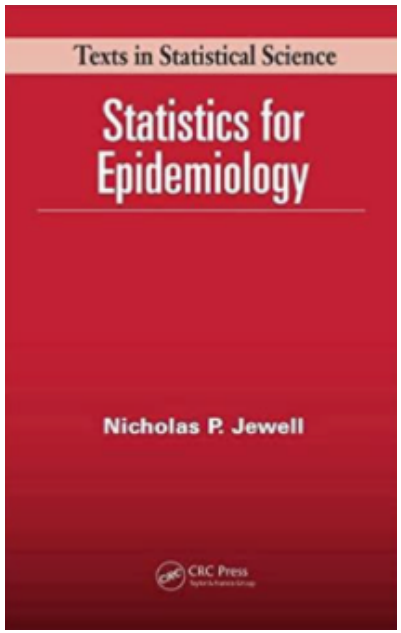
Assessment

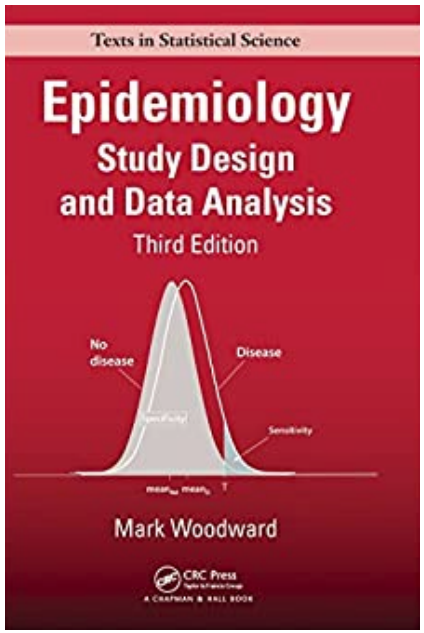
- **Exam** (in December) worths 80% of the final mark.
- There will be **three** assignments:
  - **Assignment 1** counts 5% towards the final mark. It will be released on week 3/4 and solutions are to be handed in on week 5 (Friday at 4 pm).
  - **Assignment 2** counts 5% towards the final mark. It will be released on week 6/7 and solutions are to be handed in on week 8 (Friday at 4 pm).
  - **Assignment 3** counts 10% towards the final mark. It will be released on week 9/10 and solutions are to be handed in on week 11 (Friday at 4 pm).

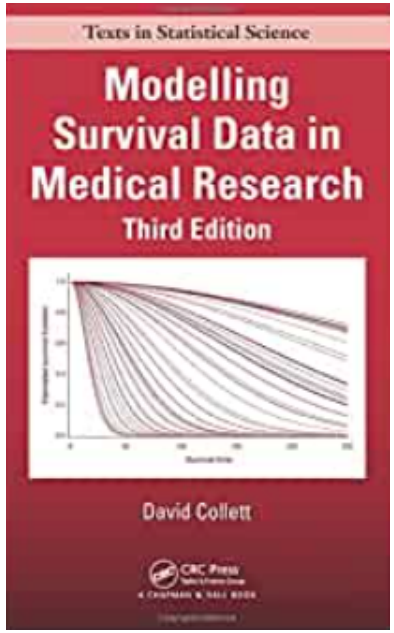
Bibliography

Covers from amazon.co.uk

↪ All three books are available on the course resources list, under the library resources list tab on Learn.





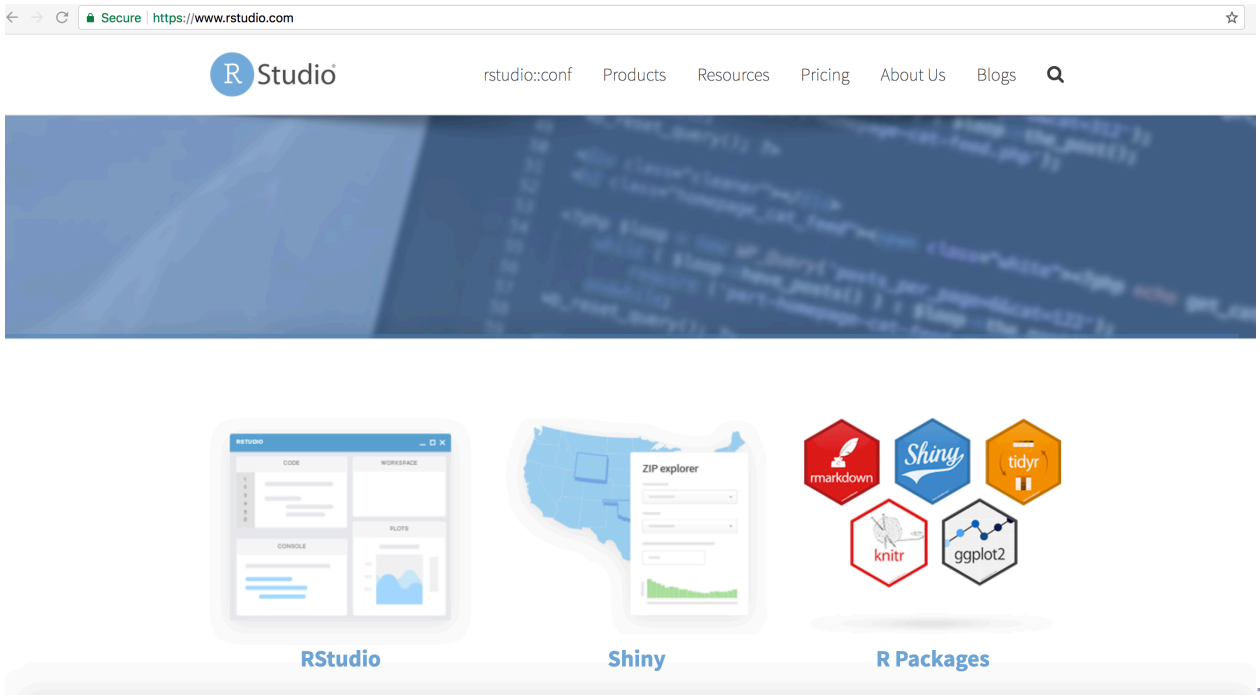


Software

↪ We will use `R` in this course.

Image from `www.r-project.org`

↪ `Rstudio` is a nice and useful interface.



Scope

↪ We will study a variety of concepts and techniques used in biomedical and epidemiological research.

↪ Topics to be covered may include:

1. Measures of disease occurrence and of disease-exposure association.
2. Study designs.
3. Estimation and inference for measures of association.
4. Causal inference, confounding, and interaction.
5. Unconditional and conditional logistic regression.
6. Analysis of survival data.
7. Diagnostic testing (if time permits).