DATA1901 LAB01

TOPIC ONE

Acknowledgement of Country

I would like to acknowledge the Traditional Owners of Australia and recognise their continuing connection to land, water and culture. I am currently on the land of the Gadigal people of the Eora Nation and pay my respects to their Elders, past, present and emerging.

Keeping our campus COVID safe

- The University is following NSW Government and NSW Health guidance as a minimum standard in our response to the COVID-19 pandemic.
- NSW Government restrictions can change at short notice.
- Check your student email for updates about University operations and COVID safety precautions.
- Visit our website: sydney.edu.au/covid-19

Follow COVID safety precautions

Stay home if you are sick

Wash hands regularly

Wear a mask

Cough or sneeze into your elbow or tissue

Avoid physical greetings

Avoid crowding entrances and exits

Keep 1.5m away from others

sydney.edu.au/covid-19

THE UNIVERSITY OF SYDNEY

Feeling unwell?

- **Stay at home**
  - if you are feeling unwell with any COVID-19 symptoms
  - If you have been directed to self-isolate
- **Get tested**
  - If you are feeling unwell with COVID-19 symptoms, please get tested as soon as possible
- **Did you test positive?**

  Yes? If you have visited campus within the last 72 hours you must advise the University via:
  - email covid19.taskforce@sydney.edu.au, or
  - call +61 2 9351 2000 (select option 1)
- **Stay informed**
  - Monitor the list of confirmed COVID case locations on campus page to check for potential exposure and follow NSW Health isolation and testing requirements.

Emergency procedures (on campus)

- In the unlikely event of an emergency, we may need to evacuate the building.
- If we need to evacuate, we will ask you to take your belongings and follow the green exit signs.
- We will move a safe distance from the building and maintain physical distancing whilst waiting until the emergency is over.
- In some circumstances, we might be asked to remain inside the building for our own safety. We call this a lockdown or shelter-in-place.
- More information is available at www.sydney.edu.au/emergency.


WELCOME TO DATA SCIENCE

ABOUT US

» What are you studying?

» What languages do you speak? (verbal and coding)

» When you first started coding in R, how did you find it?

ABOUT YOU

» What is your major / degree?

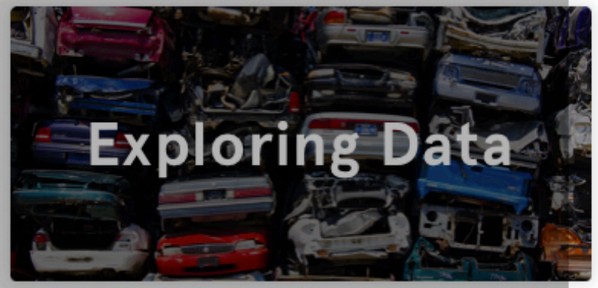
» What languages do you speak? (verbal and coding)

» What are you most excited for in university?

» http://tiny.cc/vlpouz

» Swap contact details / start a group chat

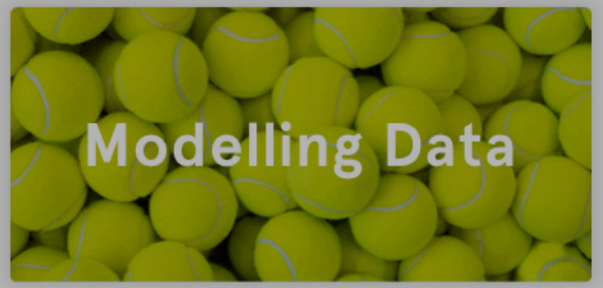
TOPICS



Topic 1
Design of Experiments

Topic 2
Data and Graphical Summaries

Topic 3
Numerical Summaries



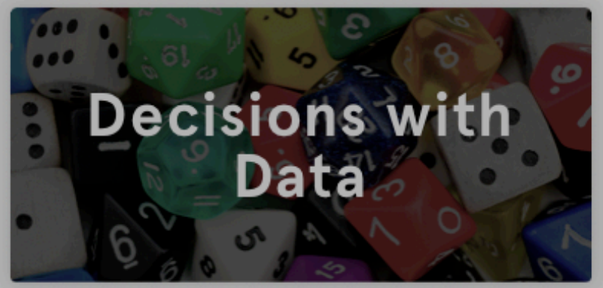
Topic 4
Normal Model

Topic 5
Linear Model

Topic 6
Understanding Chance

Topic 7
Chance Variability (The Box Model)

Topic 8
Sample Surveys



Topic 9
Hypothesis Testing

Topic 10
Tests for Mean

Topic 11
Tests for Relationship

Topic Overview

Imagine

Approx. 20min

Discover

Approx. 3hr

Challenge

Approx. 1hr

Explore

Approx. 1hr

Evaluate

Approx. 2hr


CHALLENGE

KEY IDEAS

- Ethics and Privacy
- Statistical thinking
- Randomised Controlled Trial (RCT) vs Observational Study
- Domain knowledge
- Confounders
- Precautions with observational studies

GROUP WORK

TAKE A BREAK


EXPLORE

R

REMINDERS

» Add your group members on socials / email

» Work through the extra practice in challenge

» Complete the evaluate quiz

» Go to the evaluate lecture on Friday