

# Socio-Informatics 348

## Computational Social Science

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# Welcome

- Welcome to **Computational Social Science**.
- Aim: Equip students to answer social science questions using computational methods.
- This is an interdisciplinary course: sociology, data science, economics, political science.
- No prior programming experience is expected.

# Module Goals

By the end of the course, you will be able to:

- ➊ Describe key features of social research in the digital age.
- ➋ Identify appropriate computational methods for social science questions.
- ➌ Use data wrangling and exploratory data analysis techniques.
- ➍ Write and execute basic code for data analysis.
- ➎ Work with digital trace data using R.

# Prescribed Literature

We will use:

- **R for Data Science** (2nd ed), Wickham et al.  
(<https://r4ds.hadley.nz>)
- **Bit by Bit**, Salganik (<https://bitbybitbook.com>)
- **Text Mining with R**, Silge & Robinson  
(<https://www.tidytextmining.com>)
- **Computational Communication**, van Atteveldt et al.  
(<https://cssbook.net>)

# Class Times and Venues

## Lectures:

- Mon 14:10 – Arts 225
- Wed 11:10 – Old Main 2027
- Fri 12:10 – Arts 227

## Practicals:

- Group 1: Mon 10:10 & Fri 08:10 – HUMARGA 320
- Group 2: Tue 10:10 & Fri 09:10 – HUMARGA 357/363
- Group 3: Wed 08:10 (HUMARGA 357/363) & Thu 15:10 (HUMARGA 320)

# Practical Groups

**Practicals:** Please select your group on [SocSciLearn](#).

- The group selection will open after this class.
- Please attend only the practicals for your group.
- Submission of a completed (i.e., at least 80% of exercises attempted) practical file to SocSciLearn by the deadline will earn you 1% for each practical.
- Compulsory attendance of at least one of your group's sessions.

# Assessment Overview

## **You must complete:**

- Any 2 of 3 assessments (A1, A2, A3)
- All AF assessments (10 practicals + 1 assignment)

## **Schedule:**

- A1: 4 Sep, 17:40 (35%)
- A2: 4 Nov, 09:00 (35%)
- A3: 28 Nov, 09:00 (35%)
- Practicals: weekly participation (10%)
- Assignment: 10 Oct (20%)

# Final Notes

- Stay up to date via SocSciLearn.
- Consultations:
  - Mon 15:00–16:00 – Arts 453
  - Wed 12:00–13:00 – Arts 453
  - ... or by appointment.
- Email: `lisamartin@sun.ac.za`