

# STATS 769

## Overview

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# Overview

- This course covers topics related to the analysis of large and/or complex data sets.
- In the first half of the course, we will cover a range of data technologies for accessing and processing data.
- The second half of the course will cover data analysis techniques.

2019-07-19 overview Paul week 1	2019-07-20 data science workflow Paul week 1	2019-07-21 week 1	2019-07-22 Lab Zero Paul week 1	2019-07-23 Lab Zero Paul week 1
2019-07-26 surviving linux Paul week 2	2019-07-27 prospering in linux Paul week 2	2019-07-28 week 2	2019-07-29 Lab 1 Paul week 2	2019-07-30 Lab 1 Paul week 2
2019-08-02 data formats Paul week 3	2019-08-03 web scraping Paul week 3	2019-08-04 week 3	2019-08-05 Lab 2 Paul week 3	2019-08-06 Lab 2 Paul week 3
2019-08-09 large data problems Paul week 4	2019-08-10 large data solutions Paul week 4	2019-08-11 week 4	2019-08-12 Lab 3 Paul week 4	2019-08-13 Lab 3 Paul week 4
2019-08-16 code efficiency Paul week 5	2019-08-17 parallel code Paul week 5	2019-08-18 week 5	2019-08-19 Lab 4 Paul week 5	2019-08-20 Lab 4 Paul week 5
2019-08-23 HPC Paul week 6	2019-08-24 HPC Paul week 6	2019-08-25 week 6	2019-08-26 Lab 5 Paul week 6	2019-08-27 Lab 5 Paul week 6
2019-08-30	2019-08-31	2019-09-01	2019-09-02	2019-09-03
2019-09-06	2019-09-07	2019-09-08	2019-09-09	2019-09-10
2019-09-13 TBA Yong Wang week 7	2019-09-14 TBA Yong Wang week 7	2019-09-15 week 7	2019-09-16 Lab 6 Yong Wang week 7	2019-09-17 Lab 6 Yong Wang week 7
2019-09-20 TBA Yong Wang week 8	2019-09-21 TBA Yong Wang week 8	2019-09-22 week 8	2019-09-23 Lab 7 Yong Wang week 8	2019-09-24 Lab 7 Yong Wang week 8
2019-09-27 TBA Yong Wang week 9	2019-09-28 TBA Yong Wang week 9	2019-09-29 week 9	2019-09-30 Lab 8 Yong Wang week 9	2019-10-01 Lab 8 Yong Wang week 9
2019-10-04 TBA Yong Wang week 10	2019-10-05 TBA Yong Wang week 10	2019-10-06 week 10	2019-10-07 Lab 9 Yong Wang week 10	2019-10-08 Lab 9 Yong Wang week 10
2019-10-11 TBA Yong Wang week 11	2019-10-12 TBA Yong Wang week 11	2019-10-13 week 11	2019-10-14 Lab 10 Yong Wang week 11	2019-10-15 Lab 10 Yong Wang week 11
2019-10-18 TBA Yong Wang week 12	2019-10-19 TBA Yong Wang week 12	2019-10-20 week 12	2019-10-21 week 12	2019-10-22 week 12

# Course structure

- Lecture Monday 8-9 303.101
- Lecture Tuesday 8-9 303.102
- Lab Thursday 11-1 302.190
- **Zoom** Lab Thursday 2-4
- Lab Friday 11-1 302.G40

- Lectures are recorded so can be (re)watched later and/or remotely.
- Lecture materials consist of lecture slides and code scripts, plus additional readings; lecture sessions contain live coding demonstrations.
- Lab sessions will provide an opportunity to receive assistance with lab work.
- **In addition to** physical lab sessions, there will be a virtual lab session that occurs online via Zoom.

- We will be working a lot on **virtual machines**.
- The virtual machines run **Linux**.
- The virtual machines will not necessarily have all R packages installed (e.g., **no 'dplyr'** and **no 'ggplot2'**).
- **Your code for labs** will have to work on the virtual machines.

In the first half of the course ...

- There are **5 labs** (worth marks).
- There is an **Online Term Test**.
- Each Lab will be worth 3% of your mark (for a total of 15%).
- The Online Term Test will be worth 20% (with **plussage**).
- There will be an open-book, online exam worth 50%.

**You must pass the exam in order to pass the course.**

The remaining 15% marks for course work will be assessed in the second half of the course.

- Handouts for each lab will be made available at the start of the week.
- Lab attendance is not compulsory, but is the best place to receive help and feedback.
- The lab submission is **online** and will be due on **the following Monday** (consult Canvas for exact submission date-times).
- The lab in the first week is worth **zero marks** and is just to make sure that we can all use the virtual machines and to get practice with the lab submission process and format.



# Getting assistance

- Lecture sessions and lab sessions provide opportunities to ask questions and receive feedback.
- The best place to ask questions online is via Piazza (on Canvas)

- Volunteer(s) required !