# STAC67 (Regression Analysis)

Introduction



#### Welcome to STAC67!

- Instructor: Sohee Kang
- E-mail: sohee.kang@utoronto.ca
- Office: IC 483
- Online Office Hours:
  - Wednesday 10:00 am 11:00 am
  - Thursday 4:00 pm-5:00 pm

#### TA information:

- Yao (Jenny) Li (yaojenny.li@mail.utoronto.ca)
- Sudipta Saha (sudip.saha@mail.utoronto.ca)





### **Course Format**

Туре	Day	Time
Zoom Live	Wednesday	9 am – 10 am
Lecture	Thursday	2 pm – 4 pm

**Required Textbook**: Applied Linear Regression Models., 4<sup>th</sup> edition. Author(s): Kutner, M. H., Nachtstein, C. J., and Neter, J. (older version is perfectly fine!)

 WebLink for Data Sets and Solution Manual: http://www.cnachtsheim-text.csom.umn.edu

**Sub-text**: A Modern Approach to Regression with R (should be available on-line for free) Author: Simon J. Sheather

## Computing

- Statistical computing is a key part of the class. In-class analysis will be conducted in R and all course material (code and data) is in R format. R is free and available for download at <a href="http://www.r-project.org">http://www.r-project.org</a>
- Students are expected to write R codes and interpret R outputs on assignments, tests, and the exam, and know how to write R Markdown document for the final project.

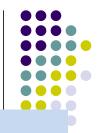
# **Course Policy**

#### Communication

- Check "Piazza" before you send an email!
- E-mail is appropriate for private communication.
- Lecture-related materials should be asked in Office hours of me and TAs

#### **Tutorial**

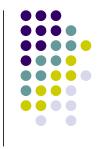
 Quizzes will be conducted in tutorial. You need to turn on vides so that TAs can invigilate quizzes.



#### **Course Evaluation**

Case Study and Presentation 15%
Assignments 15%
Quizzes 15%
Midterm Exam 20%
Final Exam 30%
Tutorial Attendance 5 %

# **Case study and Presentation**



- Students will be required to work on a case study as a group and to submit a report. The size of the group is maximum of FOUR. You can choose your group members.
- For a report students will write R codes and interpret R outputs and will use R Markdown document in R studio.
- Each group will present the case study (5 minutes) at the last day of lecture.





- All assignments are group-work (maximum number of two)
- Need to form a NEW group each time
- For unassigned students, I randomly assign to the group (after the deadline)

# (Tentative) Weekly Schedule

	Week	Tutorial Activity
1	Jan. 11 – Jan. 15	No Tutorial
2	Jan. 18 – Jan. 22	How to make R Markdown File
3	Jan. 25 – Jan. 29	Simple Linear regression
4	Feb. 1 – Feb. 5	Assignment 1 deadline, Quiz1
5	Feb. 8 – Feb. 12	Simple linear regression diagnostic
<mark>6</mark>	Feb. 15 – Feb. 19	Reading week
7	Feb. 22 – Feb. 26	Assignment 2 deadline, Quiz2
8	Mar. 1 – Mar. 5	Multiple regression
9	Mar. 8 – Mar. 12	Multiple regression with Qualitative variables and/or polynomial model
10	Mar. 15 – Mar. 19	Assignment 3 deadline Quiz3
11	Mar. 22 – Mar. 26	Multiple regression diagnostic
12	Mar. 29 – Apr. 2	Multiple regression Model selection
13	Apr. 5 – Apr. 9	Final Project Help Hour

### **More on Assessment**

- Academic integrity is essential to the pursuit of learning and scholarship in a university
- On tests and exams:
  - Using or possessing unauthorized aids.
  - Looking at someone else's answers during an exam or test (communicating)
  - Misrepresenting your identity
- Assessments will be done in tutorials (TAs will invigilate using Zoom videos)
- You will be asked to TURN ON VIDEOS

### **Oral Assessment**



- If the instructor has a suspicion on your assessment result (the deviance is great) then I will conduct an oral assessment after. If the oral assessment result confirms the suspicion then the previous assessment score will be replaced to 0.
- Only conduct in suspicious cases.