<h1 style="text-align:center">Statistics 5301 Autumn 2019: Intermediate Data Analytics (I)</h1>

Instructor: Yuan Zhang (zhang.7824@osu.edu)

Office hours: Thursday 10am – noon (right after class) in my office Cockins Hall 229. I may remain in the classroom for a short period of time after class to answer questions.

Grader: Pashmeen Kaur (kaur.138@osu.edu)

Grader tutoring hours (Updated September 10, 2019): (CH = Cockins Hall)

- Tuesday: 3–4pm in CH 134

- Wednesday: 11:30am-12:30pm in CH 134

- Thursday: 11:30am-12:30pm in CH 132

Lectures: Tuesday and Thursday, 8–9:50am Caldwell Lab 120. It is recommended that you bring a calculator with you when attending lectures for in-class exercises.

Class materials: Lecture notes posted on course Carmen site

Description: STAT 5301 is a first course in a two-semester pre-calculus sequence in data analysis covering exploratory data analysis, regression, design of experiments, probability, and one/two sample statistical inferences.

This course satisfies the General Education (GE) requirement in Data Analysis.

Expected Learning Outcomes: Students understand basic concepts of statistics and probability, comprehend methods needed to analyze and critically evaluate statistical arguments, and recognize the importance of statistical ideas.

Prerequisites: Open to students with at most 5 credit hours in Statistics. The course is pre-calculus and designed for students with limited mathematics background.

Textbooks:

1. First half: *Introduction to the Practice of Statistics* (5th Edition onwards), by D. S. Moore and G. P. McCabe

2. Second half: *The Statistical Sleuth: A Course in Methods of Data Analysis*, 3rd Edition, by F. Ramsey and D. Schafer, 2012

Homework: Homeworks will be posted on the Carmen site. The **lowest two** homework score will be dropped. **No late homework accepted.**

Put your name and the homework assignment number on the top right-hand corner of every page. All homework should be submitted on US-letter (or similar size) papers. Staple the pages together. We are not responsible for lost pages. Submit the problems in order, making sure that the computer output and discussion are placed together (do not put the computer output at the end of homework). Raw computer output is not acceptable. Make it clear what parts of the output are relevant and show how they answer the questions posed in the homework.

Homework should be submitted on paper. However, if you must miss the lecture in which a homework is due, send a scan or an electronic copy of your homework directly to the grader

and explain the reason of your absence in that email. Homework deadlines also apply to this way of submission.

You are encouraged to work together and discuss homework questions, but your own answer must be written independently. Plagiarism is strictly prohibited.

To argue the grading of a homework, use a pen in different color (from that of your homework) to clearly mark the places you wish to argue, along with brief description of reasons, and resubmit the homework along with the next homework.

R programming: Throughout this course we will intensively use the R programming language for illustrations and data analysis. We will introduce some basics of R along with the progresses of the course, and R programming may be required for some homework assignments. **Exams do not test on R programming.**

Exams:

- Midterm 1: Tuesday, September 17, in class

- Midterm 2: Thursday, October 31, in class

- Final: Tuesday, December 10, 8:00–9:45am, in the regular classroom (Caldwell Lab 120)

All exams are closed book except for cheat sheets (1 piece of double-sided US-letter size cheat sheet allowed for midterm 1; 2 pieces for midterm 2 and 3 pieces for final). Calculators are allowed. Cellphones, laptops and personal digital assistants are not allowed. Exams are cumulative.

Alternative exam offering: **Midterm exams:** No alternative exam will be offered for midterms. Requests to skip any midterm exam must be accompanied by sound reason(s) and proof, and should such request be accepted, the corresponding weight of the skipped midterm exam will be dropped into the final exam. **Final exam:** If necessary, an alternative final exam will be offered on the next day of the regular final exam, that is, on Tuesday, December 11, at a time to be determined. No early final exam will be offered. **Acceptable reasons for exam excuses:** include: illness, family emergency, presenting at a conference, job interview. Remember to present relevant proof whenever applicable. You must bring up the request as soon as possible and **before the day of the exam you request to excuse**.

Grading: homework: 15%, midterm 1: 25%, midterm 2: 25%, final: 35%. Final grades **may possibly** be curved based on the performance of the **entire class**. No individual extra credit.

Academic misconduct:

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

Disability statement:

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292- 0901; http://www.ods.ohio-state.edu/.