

# Stat 529 (Summer 2009, 2<sup>nd</sup> term)

## Data Analysis II

10:30am – 12:48pm on Tuesday and Thursday in Medenhall Lab (ML) Room 0115

### Lecturer

Tao Shi ([taoshi@stat.osu.edu](mailto:taoshi@stat.osu.edu))

Office Hours: Tuesday and Thursday 2:00pm – 3:00pm or by appointment.

Office: Cockins Hall, Room 317

### Grader

Siyoen Kil ([siyoen@stat.osu.edu](mailto:siyoen@stat.osu.edu))

Office Hours: Tuesday and Thursday 1:30pm – 2:30pm in Cockins Hall, Room 128

### Aims

Statistics 529 is the second course in a three quarter sequence in Data Analysis. We assume that students are familiar with organizing and summarizing data, the nature of relationships between variables, sampling distributions and the underlying rationale for hypothesis tests and condence intervals. Statistics 529 and 530 will cover many of the common statistical methods that you will encounter when reading journal articles in your eld, or that you will need to analyze data that you have collected. When covering any statistical method, our goal is for you to (1) understand the assumptions of the method and be able to check them, (2) be able to carry out the necessary computations on MINITAB, (3) be able to describe your results using correct statistical jargon, and (4) be able to interpret the results in a way that is meaningful to others in your eld. We will try to accomplish these goals through homework and interactive classroom sessions.

**Prerequisites:** Statistics 528 or permission of the instructor.

### Required text

*The Statistical Sleuth: A Course in Methods of Data Analysis (2nd Edition)*

by Fred Ramsey and Dan Schafer, Duxbury Press, 2002.

Please read the book as the course progresses, as I may not cover everything in class. I will assign reading from the book every lecture. The goal of statistics is not calculation, but gaining understanding from data. Thus course should be regarded as a research methods course and not a mathematics course! This means that the correct numerical answer will only receive partial credit. The remainder of the credit will be available for choosing the best method of solution and explaining why the method is appropriate. You will also need to interpret your answers in the light of the practical problem.

### Course website

Please login [carmen.osu.edu](http://carmen.osu.edu) with your web-ID. Lecture notes and course related materials can be downloaded once you login.

## Evaluation

Homework	Midterm exam	Final exam
30%	30 %	40%

**Homework** will be assigned weekly (there will be 3 homeworks in total). It will be due at the **beginning** of class on the day it is due. No late homework will be accepted. You are encouraged to work together, but **do not** copy any part of a homework. Each student must produce his/her own homework to be handed in. Feel free to ask me for help after you have made an attempt of the questions. The grader for the course does not have the time to provide detailed explanations on each question that he/she grades. To make up for this, I will endeavor to post solutions that are detailed enough to allow you to understand how the question could be approached.

Homework preparation rules: Put your name and the homework assignment number on the top right-hand corner of every page. All homework must be submitted on 8.5x11 paper. Staple the pages together. We are not responsible for lost pages. Submit the problems in order, making sure that the computer output and discussion is 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.

**Exams:** There will be one midterm and one final exam:

Midterm	August 11 (48 minutes)	Medenhall Lab 0115
Final	August 27 1:30pm – 3:18pm	Room TBD

The midterm will cover the material up to and including August 6 and the nal will cover all the material for the course. Both exams are closed book/closed notes. Calculators are allowed personal digital assistants and cellphones are not. You will be permitted to bring along one standard sized sheet of notes for the midterm exam. For the nal exam, you may bring along two sheets. You may write on both the front and back of the sheets.

## Computing

This class requires you to use the statistical software package called MINITAB. Further details will be given in class.

## Special accommodations

Any student who feels they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss your specic needs. You should also contact the Office of Disability Services at (292-3307) in 150 Pomerene Hall to coordinate reasonable accommodations for students with documented disabilities.

## Academic misconduct

Cheating, plagiarism and other forms of academic dishonesty will not be tolerated. Any violation will be prosecuted to the fullest extent as set out in University Rule 3335-31-02.