STAA 572

"Nonparametric Methods"

 Instructor:
 Wen Zhou
 Office:
 Statistics Building 2018

 Phone:
 491-1306
 Classes:
 T/R 11:00 a.m. - 12:15 p.m.

F 11:00 a.m. -11:50 a.m.

Room: Weber 237 E-mail: <u>riczw@stat.colostate.edu</u>

Catolog: Rank-based methods, nonparametric inferential techniques, scatterplot smoothing,

nonparametric function estimation, environmental applications.

Prerequisite: STAA 551 or concurrent registration or STAT 540; STAA 562 or concurrent registration

or STAT 530.

Credits: 2

Office Hours: 13:00-14:00 p.m. T and R

• The best way to get in touch with me is generally by e-mail.

TA: Meng Cao (meca7653@rams.colostate.edu)

Textbook: Introduction to Modern Nonparametric Statistics, James J. Higgins, Cengage.

Topics: One-sample Methods

Two-Sample Methods K-Sample Methods

Paired Comparisons and Block Designs Tests for Trends and Association Analysis of Censored Data Nonparametric Bootstrap Methods

Objectives: The aim of this course is to provide an introduction to nonparametric statistical methods.

The course will include a combination of classical and modern nonparametric statistics. It aims to use statistical knowledge to formulate and solve various applied problems. In addition, this course will have a large computational component in order to demonstrate

the nonparametric methods.

Learning

Outcomes: 1. The students will be able to understand the nonparametric methods, and basic ideas

behind these methods.

2. The students will be able to apply nonparametric statistical methods, make inference

and draw sensible conclusions.

3. The students will be able to implement nonparametric techniques using statistical

software, e.g., R.

Expectations: Students are expected to spend at least two hours outside of instructional time on

reading, homework, and exam preparation for each contact hour.

Attendance: Attendance at each class is required. I will not assign grades based on your attendance.

Homework: Homework will be assigned at the end of each chapter, and is due in one week from the

date of assignment. All homework assignments must be submitted in electronic format.

Pdf documents are preferred.

Every homework will be graded, and each assignment carries equal weight. The semester average for homework will count as 30% of student's course grade.

Students are allowed to work with other students on homework problems, however, verbatim copying of homework is absolutely forbidden; therefore each student must ultimately produce his or her own homework to be handed in and graded. Students are also encouraged to ask the instructor for help, after attempting to solve the problems on their own.

Exams:

There will be two Midterm Exams, each worth 20% of your course grade; the Final Exam will be worth 30% of your course grade. All the exams are required, and there will be no make-up exams. Missed exams will receive a grade of zero.

Any students needing to be excused from the regularly scheduled exam must discuss the situation with the instructor **before** the regularly scheduled exam, so that alternative arrangements can be made.

All exams are open book, open notes, take-home exams. To receive credit, you must *show all your work.*

Schedule:

Event	Date	Percentage
Drop Deadline	August 26/27, 2018	
	(More details on Canvas)	
First Midterm Exam	September 7, 2018	20%
Withdraw Deadline	September 9/17, 2018	
Second Midterm Exam	September 21, 2018	20%
Final Exam	October 12, 2018	30%
Homework		30%

[•] The dates of the midterm exams are tentative, and the exact dates will be announced later.

Special Accommodations:

If you are a student who will need accommodations in this class, please contact Resources for Disabled Students (rds.colostate.edu).

Note:

The instructor reserves the right to make any changes he considers academically advisable. It is your responsibility to attend classes and keep track of the proceedings.

[•] Each student is responsible for verifying his or her recorded scores (homework and midterm exams) during the semester.

[•] The Honor Code will be observed at all times in this course.