Course Outline

Important: Read this syllabus thoroughly and carefully. You are responsible for all the material in it.

COURSE DESCRIPTION:
The purpose of this course is to introduce students to statistical techniques required for business and economics analysis. The course is composed of two parts: descriptive statistics, probability theory, and normal distributions. The emphasis in this course is on the methods of statistical inference that is, the techniques used in the process of generalizing from a sample to the larger population from which the sample is selected. This includes techniques such as estimation, hypothesis testing, and analysis of variance. In addition, procedures for analyzing the relationship between two or more variables are discussed. These are the topics of correlation and (linear) regression.

COURSE OBJECTIVES:
It is designed to acquaint students with the procedures used in inferential statistics and the interpretation of the results of these statistical procedures. By devoting attention to the interpretation of result, the course attempts to reinforce and illustrate by example the principal role which statistics plays in business and economics— an aid to the decision-making process.

TEXTBOOK:
Statistical Techniques in Business & Economics

Authors: Douglas A. Lind, William G. Marchal, Samuel A. Wathen
Publisher: McGraw-Hill, 17th Edition

The Study Guide is designed to emphasize the main points of the readings and to provide problems to help reinforce the lessons. It is STRONGLY recommended that you use the Study Guide.

Not all the material in the lectures appears in the texts, nor is all the material in the texts covered in the lectures. You are responsible for the material in the texts and in the lectures. I make every effort to have class attendance a necessary (though not sufficient) factor in performing well on examinations.

PRE-REQUISITES:
College algebra.

OFFICE HOURS:
Tuesday 4:00-5:30 P.M.,
Hill Hall: Room: 826
You can reach me by e-mail: msani@rutgers.edu
(Weekend e-mails will be replied on Monday)

I suggest you that for the latest changes and announcements, once a week, or especially the week before the examinations visit the Blackboard.
LECTURE TOPICS:
The following is a list of lecture topics. On some I will go into great detail, others I will but mention in passing.

Introduction…………………………..Chapter 1
Graphic Presentation……………………Chapter 2
Numerical Measures……………………Chapter 3
Exploring Data…………………………Chapter 4

**First Exam: Thursday February 28, 2019**  (a 90-minute test)

Probability……………………………Chapter 5
Discrete Probability Distributions……Chapter 6
Continuous Probability Distributions…Chapter 7
Sampling Methods……………………Chapter 8

**Second Exam: Thursday April 4, 2019**  (a 90-minute test)

Estimation and Confidence Intervals………Chapter 9
One Sample Tests………………………Chapter 10
Two Sample Tests………………………Chapter 11
Analysis of Variance ……………………Chapter 12
Regression and Correlation……………..Chapter 13

As time permits:
Multiple Regression and Correlation Analysis……………Chapter 14

**Final Exam: Friday May 10, 2019** 6:00-8:00 PM  (NO early exam will be given)

Exams are not cumulative. (But they are very related to each other)

For all the course information and documents please visit the “Blackboard”

EVALUATION OF STUDENTS:
The course grade will be determined based on examinations, class participation, and homework assignments as follows:
First Exam………………34%
Second Exam………………33%
Final Exam………………33%

Practice test questions will be posted on the “Blackboard”.
Grades will be posted on the “Blackboard” a week after the test

There will be NO opportunity to MAKE UP an exam. If you miss an exam, you will receive a grade zero for that exam. There are NO extra-credit assignments. Plan to do well on the required material and study well.

Grades will not be given by the e-mails. No exceptions.

For all the course information and documents please visit the “Blackboard” at least once a week.
PROBLEMS TO WORK ON:
The text contains a very good set of problems. You should work out all of them. These problems are a guide for your learning and you will be held responsible for understanding their content. The problems I consider most important are contained in the attachment list. This does not mean that you should not work through the other problems, only that I think these will be of the greatest value at the margin. I strongly suggest that you do all the problems in the Study Guide in the relevant chapters. I also strongly suggest that you do not look at the answers until you have spent several hours working out a problem. If you "cheat" the exercise will prove of no value to you.

Rutgers Learning Center (tutoring services): http://www.ncas.rutgers.edu/rlc, Bradley Hall.

ATTENDANCE AND PARTICIPATION:
Regular class attendance is expected and class participation will be encouraged. Students will be responsible for all work missed during an absence, no matter what the reason for the absence. Consistent class attendance and worthwhile class participation will be viewed favorably in assigning grades. If grades needed to be curved, the curve will be applied only to the students whom attended classes on regular basis. If you miss more than three classes [for whatever reason(s)] the curve will not apply to your grade.

EXAMINATION RULES:
Only pencils (No2), pens, erasers, pencil sharpeners, a calculator (you must have and use your own calculator), and a watch are allowed. You are best off not bringing anything else to the exam. If you do, put it in a bag under your seat.

A note about the calculator: You are allowed to use just a regular calculator. You are NOT allowed to use smartphones or smartwatches or any electronic/digital device with wireless and storage capability as a calculator. Using such these devices during the examinations considered as a cheating.

I would like to remind everyone that violations of the university code of academic integrity, including plagiarism and cheating, will not be tolerated by the department or the university. Such violations are harmful to everyone and only serve to poison the atmosphere of openness and mutual trust on which an academic department depends. If there any questions regarding the integrity code, please refer to the graduate school pamphlet dealing specifically with these matters. For more details, please visit the following:

The policy statement on student conduct:
http://catalogs.rutgers.edu/generated/nb-ug_current/pg21725.html

For academic integrity policy:
http://catalogs.rutgers.edu/generated/nb-ug_current/pg21724.html

"Please DO NOT use your commercial or personal email accounts such as gmail, yahoo, etc. for the corresponding. I will NOT reply to any commercial or personal email accounts. All the emails should go through the Rutgers servers for the records. Please use your Rutgers email account for sending me an email.”

Student Disability:
Reasonable accommodations will be provided for students with documented disabilities. Students who have registered with The Office of Disability Services should make this known to the instructor. Students who have not yet registered their documented disability should do so immediately.
Note: Should I be forced to miss a class, I will make every effort to provide prior notice. In the absence of such notice, please wait 20 minutes past the hour.

NOTE:
Should I be forced to miss a class, I will make every effort to provide prior notice. In the absence of such notice, please wait for 20 minutes past the hour.

P. S. Note that I reserve the right to alter the contents of this syllabus during the semester.

- No make up exam
- No grades by email
- For all information please visit the Blackboard

HW Assignments:

Statistical Methods
21:220:231

Chapter 1 2, 4
Chapter 2 2, 5, 11, 18, 20
Chapter 3 4, 8, 10, 14, 16, 24, 26, 28, 30, 32, 36, 38, 42, 46, 48, 50, 54, 55, 58, 60
Chapter 4 2, 6, 11, 16, 19, 20, 23, 24, 26
Chapter 5 1, 2, 4, 6, 8, 12, 14, 16, 18, 20, 24, 26, 27, 28, 40, 46
Chapter 6 2, 4, 6, 8, 10, 12, 14, 18, 20, 21, 22, 32, 34, 36
Chapter 7 2, 4, 8, 10, 12, 14, 16, 18, 22, 24, 28, 30
Chapter 8 6, 8, 10, 16, 18
Chapter 9 2, 4, 6, 8, 10, 12, 16, 18, 20, 22, 24, 26, 28
Chapter 10 2, 4, 6, 8, 10, 12, 16, 18, 20
Chapter 11 1, 2, 4, 8, 13, 14
Chapter 12 1, 2, 4
Chapter 13 1, 2, 4, 13, 14, 20, 21, 22, 26, 27, 31, 32, 33
Chapter 14 TBA

Note: The answer to the odd-numbered is given in the book.