

220:203 STATISTICAL METHODS Fall 2020 Prof. James VanderHoff

Office: Hill Hall, Room 829 E-mail: jhv@newark.rutgers.edu [973] 353-5256

OFFICE HOURS: Wednesday, 2:30 to 3:50 and by appointment

Course Objective: This course provides students with the knowledge of statistical methods required to understand statistical studies and to complete advanced courses. The student who successfully completes this course will be able to interpret summary statistics, evaluate tests of parameter values and analyze estimates of multivariate regression models.

Required Text: Introduction to Business Statistics, free download at Openstax; https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/IntroductoryBusinessStatistics-OP_MxkHmqw.pdf

HOW TO LIE WITH STATISTICS, Daniel Huff, free download at <https://ia800609.us.archive.org/17/items/HowToLieWithStatistics/Huff-HowToLieWithStatistics.pdf>

Responsibilities: The students are responsible for determining the grade they wish to earn and completing the necessary work. The professor is responsible for discussing the basic concepts, making and grading exams and computing grades. **The professor is not responsible for students' grade choices.**

Grading: I have not learned the best way to assign grades with an online class. I may adjust my grading during the semester. If I do, I will give you weeks notice and make an announcement on BLACKBOARD. My plan is that the number of points earned on 6 tests, a final exam, pop quizzes and out of class assignments will determine the final grade. A student who accumulates at least 90% of the possible points will earn an A; 89-80% of the points will earn a B; 79-70% of the points will earn a C and 69-60% of the points will earn a D. These percentages may be adjusted downward according to the class distribution of points. The exams will contain problems similar to those in the textbook and discussed in class. A student is allowed to use the textbook and notes on the exam. Exams are an individual effort: cheating will not be tolerated and may result in a disciplinary failure in the course (see Policy on Academic Integrity in the Student Handbook). Make-up exams will only be given to students with absences approved by the professor and will be scheduled at the end of the semester. **A student will earn an "F" if unable to calculate the mean and standard deviation on the final.**

Prerequisites: All students must have successfully completed college algebra or placed out of it prior to taking this course.

On Line Support: On BLACKBOARD, I will list grades, sample of exams given in previous semesters, class cancellations due to weather or illness and other class changes. Students are encouraged to send questions to me via e-mail at jhv@andromeda.rutgers.edu **Tutoring: The Learning Resource Center [973 353-5608] provides free tutoring for statistics and other subjects.**

COURSE OUTLINE AND PREDICTED TIMELINE

WEEK STARTING	Topic	Text Chtr	LWS Chtr	tests
31-Aug	Welcome to the class			
7-Sep	Sampling and Data	1	1	
14-Sep	Descriptive Statistics, probability	2, 3	2	1 [1-3]
21-Sep	Discrete Random Variables	4	3	
28-Sep	Continuous Random Variables;	5	5	2 [4,5]
5-Oct	The Normal Distribution	6	6	
12-Oct	The CLT;	7	7	3 [6,7]
19-Oct	Confidence Intervals	8		
26-Oct	Hypothesis Testing with One Sample	9	8	4 [8,9]
2-Nov	Hypothesis Testing with Two Samples	10	9	
9-Nov	The Chi-Square Distribution	11	10	5 [10, 11]
16-Nov	F Distribution and One-Way ANOVA	12		
23-Nov	Linear Regression and Correlation	13		6 [12,13]
30-Nov	Linear Regression and Correlation	13		
7-Dec	review			
TBA	FINAL EXAM			

