

*PRE 710: Introduction To Statistical Analysis*

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Spring, 2001

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Required Text: Salkind, N. J. (2000). *Statistics For People Who (Think They) Hate Statistics*. Thousand Oaks, CA: Sage Publications

Note: You are required to be simultaneously enrolled in PRE 711.

*Tentative Schedule of Activities*

<i>Session</i>	<i>Date</i>	<i>Lecture Topic</i>	<i>Chapter</i>	<i>Do These Exercises At Home Before You Come To Class</i>	<i>We Do These Exercises In Class After Lecture and Discussion (Distributed Then)</i>	<i>You Take These Exercises Home For Practice</i>	<i>Quiz #</i>
1	1/16	Introduction	Introduction and 1	-	-	-	
2	1/23	Measures of Central Tendency	2	Chapter 2 Time To Practice Page 36	Chapter 2 Supplemental Exercises Set #1	Chapter 2 Supplemental Exercises Set #2	
3	1/30	Measures of Variability and The Visual Illustration of Data	3, 4	Chapters 3,4 Time To Practice Pages 52 and 82	Chapters 3,4 Supplemental Exercises Set #1	Chapters 3,4 Supplemental Exercises Set #2	1
4	2/6	Measures of Association	5	Chapter 5 Time To Practice Page 105	Chapter 5 Supplemental Exercises Set #1	Chapter 5 Supplemental Exercises Set #2	2
5	2/13	Prediction and Regression	6	Chapter 6 Time To Practice Page 125	Chapter 6 Supplemental Exercises Set #1	Chapter 6 Supplemental Exercises Set #2	3
6	2/20	Hypothesis Testing	7	Chapter 7 Time To Practice Page 145	Chapter 7 Supplemental Exercises Set #1	Chapter 7 Supplemental Exercises Set #2	4
7	2/27	Probability	8	Chapter 8 Time To Practice Page 167	Chapter 8 Supplemental Exercises Set #1	Chapter 8 Supplemental Exercises Set #2	5
8	3/6	Concepts of Significance	9	Chapter 9 Time To Practice Page 189	Chapter 9 Supplemental Exercises Set #1	Chapter 9 Supplemental Exercises Set #2	6

9	3/13	t-tests	10, 11	Chapters 10, 11 Time To Practice Pages 203 and 218	Chapters 10, 11 Supplemental Exercises Set #1	Chapters 10, 11 Supplemental Exercises Set #2	7
	3/20	No Class Spring Break		-	-	-	
10	3/27	Analysis of Variance	12	Chapter 12 Time To Practice Page 238	Chapter 12 Supplemental Exercises Set #1	Chapter 12 Supplemental Exercises Set #2	8
11	4/3	Testing Correlation Coefficients	13	Chapter 13 Time To Practice Page 252	Chapter 13 Supplemental Exercises Set #1	Chapter 13 Supplemental Exercises Set #2	9
12	4/10	Non Parametric tests	14	Chapter 14 Time To Practice Page 256	Chapter 14 Supplemental Exercises Set #1	Chapter 14 Supplemental Exercises Set #2	10
	4/17	No Class SRCD		-	-	-	
13	4/24	More Advanced Procedures	15	Chapter 15	Chapter 15 Supplemental Exercises Set #1	Chapter 15 Supplemental Exercises Set #2	11
14	5/1	Summary and Conclusion		-	-	-	12

### *How Class Works*

The primary goal of this class is to familiarize you with the basic statistical tools that behavioral and social scientists need to be good and intelligent consumers and good beginning practitioners. It is hands-on and very applied, with emphasis on real world problem solving. Salkind is interested in your being able to *do*.

Class will begin promptly at 4:30 and we follow the syllabus very closely. The general sequence of activities will be as follows. Take a bathroom, food, etc. break anytime you want after the quiz.

1. 4:30 – 5:00

The four-question quiz after which each question on the quiz is reviewed.

2. 5:00 – 6:00

Lecture and open discussion on the current week's topic. Group review of the Time To Practice (exercises) found at the end of each chapter. You should come to class already having completed these problems and ready to review them. If you don't do these exercises at home after you have read the chapter, don't be expected to fully understand the in-class work.

3. 6:00 until class ends

Working alone, completion of the supplemental exercises #1 that are handed out in class and review of these.

4. Finally, you take home the set of supplemental exercises #2 to reinforce what you have learned and practiced

### *Class Guidelines*

1. Class (and the quiz) begins promptly at 4:30. Don't be late.
2. You are responsible for reading the assigned chapter and doing the assigned problems prior to the class for which it is assigned.
3. Make a copy of anything you submit. Be sure to make a copy of any computer files that you create.
4. Plagiarism will be dealt with according to University guidelines. Do your own work. Complete all the quizzes in pen.
5. Please do not eat in class. It is distracting to others.
6. Do not leave class while the instructor is lecturing or while others are talking. If you have a prior commitment and have to leave, either don't come to class, or leave during the break. The only acceptable reason for leaving during class is for a personal or family emergency.
7. Incompletes will only be considered when requested in writing before 4/10/2001. An incomplete is given only for family, personal or medical emergencies.
8. No whining or complaining. Intellectual discourse, constructive criticism and productive debate are encouraged and welcome.
9. Be respectful of your neighbor. Do not talk while others are talking. If you continue to talk, you'll be asked to leave class. It's happened.

### *Requirements*

1. Each class will begin with a four problem quiz that focuses on the previous week's work. Each question is worth 5 points for a total of 20 points. If you don't attempt an answer of any substance to the short answer items, you will get 0 points (surprised?). The first of these quizzes will be on 1/30/2001 at the start of the third class session. A sample quiz can be found in this syllabus. There will be 12 quizzes. You can drop your lowest quiz score. There are no makeup quizzes except in the case of a family or medical emergency.
2. Each class member must submit a record of his or her scores using the sheet attached to this syllabus in the folder provided for that purpose. The activity record sheet must be completed and handed in along with all other course materials in a simple folder on the last day of class. *No course grade will be given unless these materials are submitted.*

Final grades will be assigned as follows as a percentage of all available points.

Percent	Final Grade
94	A
91	A-
88	B+
85	B
83	B-
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77

C

74

C-

*Activity Record*

Please record each of your scores as you progress through the semester and hand this sheet in the last day of class. **You must submit this completed sheet in your folder with all your work before you can receive a grade.**

Name \_\_\_\_\_

<i>Quiz</i>	<i>Points</i>
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

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Quiz #

Name \_\_\_\_\_

1. A group of contestants were selected to participate in a “real TV” game show to determine who would survive the longest if stranded on the moon. The contestants’ ages are 35, 47, 22, 30, 63, 33. What is the exclusive range?
2. A university professor was interested in identifying left-handed students from all of the six introductory level psychology classes in the department. The number of left-handed students in each class is: 3, 5, 6, 3, 2, 1. What is the inclusive range?
3. The local B League baseball team is trying out new pitchers. The new pitcher will be selected based on the mean velocity of his best pitches, but also based on the standard deviation of his pitches. Compute the standard deviation and variance for Pitcher A if his pitches are clocked at 78, 67, 89, 87, 86, 78, 72, and 67 miles per hour.
4. How does a biased standard deviation differ from an unbiased standard deviation?