

STATISTICS

PSYCHOLOGY 343

SPRING 2016

CRN 27528

Instructor: Dr. Ronald Pavone

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Lecture Hours: 2:00 - 3:15, Tuesdays and Thursdays, in 140 BSB

All Discussion Sections are on Friday in 2019 BSB

Office Hours: Tuesdays 3:45 - 5:15, Wednesdays 2:15 - 3:45; and by appointment

Teaching Assistant: Dana Cole; **Office:** 143B BSB; **e-mail:** dcole20@uic.edu

Office Hours: Mondays 4:00 - 5:00, Wednesdays 4:00 - 5:00; and by appointment

Texts: Statistical Applications for the Behavioral Sciences, by L. Grimm

The Student Study Guide and Workbook, by J. Britt and L. Grimm

Goals and Objectives: The purpose of this course is to help you develop college level descriptive and inferential statistical skills. You will learn to conceptually understand, and to concretely apply, statistical procedures in the context of research data in the behavioral sciences. As you exercise and build these skills, you will be laying a foundation to better understand psychological literature and analyze data. In addition, this course is intended to help you strengthen your logical problem-solving and decision-making abilities to think more precisely, systematically, and critically.

We will cover a great deal of material in the next 16 weeks. This material is cumulative, with each new topic building on your understanding of the information that preceded it. Therefore, it is essential that you carefully keep up with the readings and that you complete your weekly Homework Exercises. You are strongly recommended to maintain excellent class attendance, and to already have read each week's chapter, *before* you come to class. Each week a Homework Assignment, including for your Project, will be due during your Friday Discussion Section and will be graded.

Your final grade will be based on four tests, and on your weekly homework exercises. Total homework points will contribute 20% to your final grade, and each test also will contribute 20%. You will take your first three tests in Weeks 4, 8, and 13, and you will take your fourth test during Finals Week. Like the first three tests, the fourth test will cover specific chapters only since the most recent test. Thus, there will be no comprehensive final exam, at least in the usual sense of the term. However, as noted above, remember that the material you learn in Statistics will be foundational in nature, with new material systematically building on what has come before. In an important sense, then, your final test indeed will be "cumulative". Out of the total points possible during the semester, if you earn 90% you will get an "A"; 80% = "B"; 70% = "C"; 60% = "D".

Late Homework Assignments will not be accepted, and the policy for missed tests is as follows. If you must miss a test, a more difficult makeup test will be given. Makeup tests will have extra questions that will count against your grade if they are missed, but they will not add to your grade if they are answered correctly. For your weekly exercise assignments and for your tests, use only traditional calculators without graphics, cell phones, or programmability.

Prerequisites: PSCH 242 and ENGL 161 with a minimum grade of C; MATH118 (or the equivalent) with a minimum grade of C or MATH 090; or consent of the instructor. For Psychology or Neuroscience Major status only. Students who do not have prerequisites will be dropped from the course.

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Course Schedule

<u>Week Beginning</u>	<u>Topic</u>	<u>Assignment</u>
1/11	Measurement and Displaying Data	Ch. 2
1/18	Central Tendency	Ch. 3
1/25	Variability	Ch. 4
		[skip 56-58]
2/1	Test One on Tuesday The Normal Curve and z -Scores	Ch. 5
2/8	Sampling Distributions	Ch. 6
2/15	“Hypothesis Testing” with Single Sample z -Test & Single Sample t -Test	Ch. 7
2/22	The Two Independent Samples t -Test	Ch. 8
2/29	Test Two on Tuesday The Chi-Square Test	Ch. 17
3/7	One-Way Analysis of Variance	Ch. 12
3/14	One-Way ANOVA [con'd]	Ch. 12
3/21	–No Classes : Have a Good Spring Break!–	
3/28	Two-Way Analysis of Variance “Statistical April Fool’s” Projects!	Ch. 13
4/4	Two-Way ANOVA [con'd]	Ch. 13
4/11	Test Three on Tuesday Correlation	Ch. 15
4/18	Regression	Ch. 16
4/25	Integrating What You Have Learned: The General Linear Model	Chapter Handout
5/2	Test Four during Finals Week	

[Any changes to be announced in class and are the responsibility of the Student.]

Weekly Discussion Section Homework Assignments: In each of your Weekly Discussion Sections, Homework Exercises will be due for grading. The Homework Exercises are found in The Student Study Guide and Workbook, at the end of each chapter. For each chapter and for each week, do ALL of the exercises. Your Homework Exercises are extremely important. They will provide you with consistent opportunities to systematically exercise your statistical knowledge. Through your weekly homework exercises, you will build points toward a full 20% of your final grade. You must show your work to earn your credit. It will be to your great benefit to invest considerable care and effort toward mastering the concepts and the processes illustrated by your Statistics Homework Exercises.

Students with Disabilities: If you require accommodations for access and participation in this course, you must register with the Office of Disabilities Services (ODS). Please contact ODS at 312/413-2183 (voice) or 312/0123 (TTY).