Introduction to Statistical Methods

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SYLLABUS

GOALS: This course has two major goals: (a) to acquire an understanding of basic statistical concepts; and (b) to be able to perform accurately basic statistical computations. Students will demonstrate their understanding by providing "eyeball-estimates" of all statistics before computations are performed. Topics include measures of central tendency and variation; frequency distributions; sampling distribution of the mean and the central limit theorem; confidence intervals; one-, two-independent-, and two-dependent sample *t* tests; power; one-way ANOVA; correlation; regression; and chi-squared tests.

TEXT: Hurlburt, R.T. (2017). Comprehending behavioral statistics (6th ed.). Dubuque, Iowa: Kendall Hunt. ISBN 978-1-5249-0465-4. You may use either the printed copy (available at the bookstore or online at http://www.kendallhunt.com/hurlburt/) or the ebook, which you may install on two computers and two hand-held devices; access disappears after six months; see www.kendallhunt.com/hurlburtebook. You will need the 6th edition to get access to the new Personal Trainer website, which is where the quizzes and many other materials will be found. The 6th edition of both the printed copy (for the original purchaser) and the ebook includes access to the Personal Trainer website. Use of the older 5th edition will not provide access to Personal Trainer, which is essential to this course (see next section).

COMPUTER SOFTWARE (*Personal Trainer*): Access to the *Personal Trainer* website is included free with your textbook (or ebook). It includes lectlets (interactive audiovisual lectures), ESTAT (eyeball-estimation and computational software), an interactive algebra review, and multiple-choice and fill-in quizzes for each chapter. To access the site, follow the instructions on the inside front cover of your printed textbook, or in the email sent to you with your ebook instructions, or click *Personal Trainer* on the PSY210 WebCampus **Let's get started** page. Register with the Access Code found on the inside front cover of your textbook (or in the email sent to you with your ebook instructions).

CALCULATOR: A calculator is required for this course. A \$5.00 version that has a square root key and a single memory function is adequate. Calculators with special statistical functions are permitted, but you will be required to show your work anyway.

CLASS: Tuesday-Thursday 8:30-9:45am (BEH 222). Lectures will explain and provide examples of material covered in the readings. Questions from students are encouraged: it is essential to clear up misunderstandings as soon as possible because each part of the course builds on the preceding parts. Most students find that regular attendance is necessary.

ARITHMETIC PREREQUISITE: College algebra is a prerequisite for this course. Take the "Self-test for arithmetic" found in Appendix B of your textbook immediately. If you don't score 90% or higher on that test, you should seriously consider dropping this course and adding an algebra course. For a quick algebra review, click **Algebra** in the *Personal Trainer*.

LABORATORY: Labs and their quizzes are available 24/7 in *Personal Trainer* (see Computer Software above) and click **Labs** or **Quizzes**. Quizzes are due on the dates listed in the schedule. Each quiz can be taken three times; we will record your highest score.

HOMEWORK: The homework assignment is the same for each chapter: Section A and C (if it exists) at the end of each chapter. Homework for all chapters covered by an exam is due on the day of the exam. Homework will be collected, recorded, and returned; if you turn in homework regularly and your final grade is near the upper limit of a grade category, your final grade will be bumped to the higher category.

OPTIONAL QUIZZES: I will feel free to offer optional quizzes at any time, announced or unannounced, in-class or take-home.

EXAMS: There will be five sectional exams. In addition, there will be a cumulative final exam, which will be similar in format to the Section C "Cumulative Review" homework problems. The first four exams will be closed book, but I will provide Xerox copies of all equations and tables, and you may prepare and bring to the exam one 8½ X 11 inch double-sided "crib sheet" with whatever notes you desire. [NOTE: I take an extremely dim view of cheating, and will recommend penalties as extreme as the UNLV Code allows.] UNLV Policy: "Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution." See the "Student Academic Misconduct Policy" (approved December 9, 2005) located at: http://studentlife.unlv.edu/judicial/misconductPolicy.html.

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CALENDAN.			
CLASS DAY	READING	LAB (and Quiz)	
January 22–24	Chapter 1, 2	Lab 1 (Friday 1/25)	
January 29–31	Chapters 2, 3	Lab 2 (Wednesday 1/30), Lab 3 (Friday 2/1)	
Tuesday, February 5	Examination #1:	Chapters 1, 2, 3	
Thursday, February 7	Chapter 4	Lab 4 (Friday 2/8)	
February 12–14	Chapters 5, 6	Lab 5 (Wednesday 2/13), Lab 6 (Friday 2/15)	
February 19–21	Chapter 7	Lab 7 (Friday 2/22)	
Tuesday, February 26	Examination #2:	Chapters 4, 5, 6, 7	
Thursday, February 28	Chapters 7, 8	Lab 7 repeat (Friday 3/1)	
March 5–7	Chapters 8, 9	Lab 8 (Friday 3/8)	
March 12–14	Chapter 9, 10	Lab 9 (Wednesday 3/13)	
[March 17-March 23 Spring break]			
March 26	Chapter 10	Lab 10 (Tuesday 3/26)	
Thursday, March 28	Examination #3:	Chapters 7 (again), 8, 9, 10	
April 2–4	Chapter 11, 12	Lab 11 (Friday 4/5)	
April 9–11	Chapter 12, 13	Lab 12 Wednesday 4/10), Lab 13 (Friday 4/12)	
April 16–18	Chapter 13, 14	Lab 14 (Friday 4/19)	
Tuesday, April 23	Examination #4:	Chapters 11, 12, 13, 14	
Thursday April 25	Chapter 16	•	
April 30–May 2	Chapter 16, 17	Lab 16 (Wednesday 5/1), Lab 17 (Friday 5/3)	
May 7–9	Chapter 17, 18	Lab 18 (Friday 5/10)	
by Wednesday, May 15, 10:00 a.m. Examination #5: Chapters 16, 17, and 18 (take home)			
and Cumulative Final Exam (take home)			

GRADES: Your final grade will be based seven items, each worth 100 points:

1-5: five sectional examinations;

6: the lab quiz composite (the best 15 of your 17 lab quizzes, times .667); and

7: the cumulative final exam

The lowest score among items 1—6 will be dropped [the final exam (7) is not droppable]. Thus your final grade will be based on 600 points, in 10% categories: A = 540 and above; B = 480-539; C = 420-479; D = 360-419; F = 359 and below.

Grade categories will be "softened" for homework performance as described above.

DISABILITY: The Disability Resource Center (DRC) coordinates all academic accommodations for students with documented disabilities. If you have a documented disability that may require accommodations, please contact the DRC for the coordination of services. The DRC is located in the Student Services Complex (SSC), Room 137, and the contact numbers are: Voice (702) 895-0866, TDD (702) 895-0652, fax (702) 895-0651. For additional information, please visit: http://drc.unlv.edu/.

CELL PHONES: Please: no reading, surfing, texting, or talking except in imminent emergency.