

EPY 721 Descriptive and Inferential Statistics: An Introduction

Skills

By the end of this course, students will demonstrate the ability to:

13. Read frequency tables and distributions.
14. Compute measures of central tendency.
15. Compute measures of variability.
16. Compute standard scores.
17. Compute correlations.
18. Compute the slope and y-intercept for simple linear regression.
19. Compute predicted values based on simple linear regression.
20. Conduct an independent t-test.
21. Conduct a dependent t-test.
22. Use SPSS software to complete a variety of the analyses studied in class.

Required Materials

Text: Hinkle, D.E., Wiersma, W., & Jurs, S.G. (2003). *Applied statistics for the behavioral sciences*, Fifth edition. Boston: Houghton Mifflin.

Calculator: Any with a square root function will do for the course.

This primary text is the one used in all other sections of EPY 721. It is available in the bookstore and from online vendors. Previous editions of the book exist and are similar in content, as do many texts online. Students have the option of purchasing previous editions of the Hinkle text or any other they find useful. In order to provide contemporary and interactive content, I may be using offerings from more recent texts as online supplements over the course of the semester. As the statistical methods and knowledge covered in this course is reasonably stable, students are encouraged to choose a text that suits them. However, *all students are responsible for content covered by the 5th edition*.

Optional Recommended Supplemental Text

For those who are new to SPSS and/or will be using SPSS in the future, you may also want to consider investing in a copy of the *SPSS Survival Manual* written by Julie Pallant. There are multiple editions, the most current being the 7th edition, though an older edition would be just fine. I find it to be a very helpful book to have around, not just for this course, but if you think you will be using SPSS in the future.

Pallant, J. (2020). *SPSS Survival Manual: A step by step guide to data analysis using IBM SPSS*, 7th edition. Open University Press.

Additional Library and Information Resources & Materials

In order to fully participate in class and complete assignments. All students will need (1) access to the internet, (2) a word processing program capable of producing documents in .docx format, and (3) access to SPSS software.

Course materials will be posted on the Canvas site (i.e., WebCampus). All students are responsible for checking the page frequently and accessing these resources. Use of materials may be monitored. Students who are unfamiliar with Canvas, or with the processes required to download, view, manipulate, or print Microsoft Office (.docx, .pptx, .xlsx), SPSS (or any version using .sav, .spv, .sps), or Adobe Acrobat (.pdf) files should visit the Office of Instructional Technology to obtain the necessary resources.

Students must submit their assignments in .docx format so that feedback can be provided electronically.

Accessing SPSS

You have options, a couple of which (as listed with the Office of Information Technology) are listed below.

- Students may purchase a subscription license of SPSS at a significant discount through Kivuto. To purchase this product, please go to the [UNLV Kivuto Website](#) and register for an account using your Rebelmail address.
- Another option is to use a computer at UNLV for free. There are a number of locations with SPSS including the computer labs in CEB and the library.
- Please note that SPSS also has a free trial offer, but the time frame is short, and you do not get all of the programs.

Course Requirements & Expectations

Attendance

Students are expected to attend to materials on a weekly basis. Missing a _____ will not directly result in a grade deduction, however, time-sensitive work is common and **cannot** be made up after the due date . Those whose incompletions are unexcused will receive a grade of 0 on work assigned during weeks they fail to log-in. If you know you will miss a period of the class, alert the instructor **prior** to the weekly release so arrangements can be made. If you miss an extended period of coursework, you must address this prior to exam week to avoid receiving a failing grade for the course.

Grading

Evaluation Techniques

Opening Quizzes

An opening quiz is to be completed (after completing the reading for the week) online course content. These quizzes should be completed at the beginning of the week. They are designed as a formative assessment tool that provides you with feedback about your level of mastery of course material after your reading and before engaging with the online materials. Quizzes typically include 5-10 items that test your grasp of the concepts and the skills covered in the assigned reading. You earn points for completion of these quizzes. If it is evident that your quiz is technically complete but also that you have not made an honest effort at reading the material (i.e., your responses are unintelligible), you will receive no credit.

You are encouraged to complete these quizzes as many times as you like to monitor and rehearse your knowledge. Ongoing self-assessment versions are housed under [Self-Assessment Versions of Quizzes for Additional Practice](#)

Workshops

For most weeks, we will conduct an activity embedded into our weekly course materials to illustrate a key concept covered in the chapter. These can include skill workshops where we calculate statistics by hand as well as other activities where students produce written work. You will be graded on your performance, in addition to mere participation. Accordingly, you must submit the work by the end of the weekly session to receive credit. However,

homework by the end of the week. Students are expected to review and complete all posted material during each session.

Students are encouraged to re-access and practice using these workshop exercises after sessions as they wish.

Homework Assignments

Homework assignments are designed to help students develop statistical and analytic skills, and to become comfortable using statistical software. Assignments will include statistical analyses to be conducted using SPSS software, as well as interpretation of the results that are produced (using APA format and conventions). Assignments are due by Sunday at 11:59 p.m.

Classroom Conduct

Incomplete Grades

-fourths of course work

acceptable to the instructor, and the instructor believes that the student can finish the course without repeating it. For undergraduate courses, the incomplete work must be made up before the end of the following regular semester.

-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the period indicated, a grade of

do not register for the cou

Tutoring and Coaching

The Academic Success Center (ASC), at the Claude I. Howard Building, provides tutoring, academic success coaching, and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, please visit the [ASC website](https://www.unlv.edu/asc), <https://www.unlv.edu/asc>, or call 702-895-3177. The ASC is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of SSC A, Room 254. Drop-in tutoring is located on the second floor of the Lied Library, and on the second floor of the College of Engineering building (TBE A 207).

UNLV Writing Center

One-on-one or small group assistance with writing is available free of charge to UNLV students at the [Writing Center](https://writingcenter.unlv.edu/), <https://writingcenter.unlv.edu/>, located in the Central Desert Complex, Building 3, Room 301 (CDC 3 301). Walk-in consultations are sometimes available, but students with appointments receive priority assistance. Students may make appointments in person or by calling the Center, telephone 702-895-3908. Students are requested to bring to their appointments their Rebel ID Card, a copy of the instructions for their assignment, and two copies of any writing they have completed on their assignment.

Diversity Statement

As an institution of higher learning, UNLV represents a rich diversity of human beings among its faculty, staff, and students, and is committed to aspiring to maintain a Campus environment that values that diversity. Accordingly, the University supports understanding and appreciation of all members of its community, regardless of race, sex, age, color, national origin, ethnicity, creed, religion, disability, sexual orientation, gender, gender identity, marital status, pregnancy, genetic information, veteran status, or political affiliation. Please see [University Statements and Compliance](https://www.unlv.edu/about/statements-compliance), <https://www.unlv.edu/about/statements-compliance>.

Week	Date	Topic	Readings to be completed	Assignment
4	9/13	The Normal Distribution Standard Normal Distribution Other Distributions	4	
5	9/20	Correlation & Association Correlation vs. Causality	5	Homework 3 (Due by Sun, Sept 26)
6	9/27	Regression & Prediction Prediction vs. Causality	6	Homework 4 (Due by Sun, Oct 3)
7	10/4	Part II: Inferential Statistics Sampling, Probability and Distributions Reasoning with Inferential Statistics Sampling Distribution of the mean Standard Error	7	
8	10/11	Hypothesis Testing Conceptual Overview Type 1 and Type 2 Errors	8	
9	10/18	Hypothesis Testing Continued	8 & Online Readings	9 10/11

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