

Introduction to Data Analysis (Laboratory) **PSYC-2101L All Sections, Fall 2022**

Lectures/Labs: Zoom (Synchronous, no recordings)

Instructor:

E-mail:

TEXTBOOK: Nolan, S. A., & Heinzen, T. E. (2020). *Statistics for the Behavioral Sciences* (5th ed.). New York: Worth.

OBJECTIVES:

The main objective of the lab is to develop your understanding of the basic statistical principles and procedures for the analysis of psychological data. The labs will accomplish this through summary lectures, demonstrations, and problem solving. A secondary objective is to introduce you to the use of computers and statistical software for data analysis.

Mastering the tasks in the lab will provide you with a solid foundation to approach the more advanced data analysis and research methods courses offered in the department.

LAB REQUIREMENTS:

You will be given a laboratory assignment in most lab meetings. These lab assignments will involve solving data analysis problems by hand and using SPSS and will contribute towards your final grade in the course. Please see the course outline for the weighting of these assignments toward your final grade in the course.

You will have **one week** to complete each lab assignment. Assignments will be returned one week after they are handed in. Late assignments, however, will take longer to return. Please note that **all assignments must have an APA style title page and be saved as a PDF file**. Assignments will be administered and submitted using **Crowdmark.com**. Emailed assignments will **not** be graded. Assignments that do not meet these requirements are subject to penalty and possibly refusal. Note that late assignments are subject to late penalties and these late penalties are at my discretion, however, the typical penalty is a loss of 10% per day for the first three days, and 20% for the fourth and subsequent days.

ATTENDANCE AND MISSING LABS:

Since the lab assignments depend on your participation in class, **your attendance is a requirement of the lab**. If you miss one lab you can drop the mark for this assignment. However, if you complete all of the lab assignments, then you can drop the lab assignment with the lowest grade. There are no makeup lab assignments.

NEXUS:

I will be using Nexus to post lab materials (e.g., handouts, lecture notes, supplementary problems and solutions, etc.). The URL for Nexus is: <https://nexus.uwinnipeg.ca/>.

GRADING:

The first lab assignment, Lab #0: Math Review, is optional and does not count for marks. There will be nine assignments due for marks and they will be equally weighted. **The assignment with the lowest mark will be dropped**, so your mark will be based on the best eight of the nine marked assignments.

SAMPLE GRADE CALCULATION:

Student	Lab Assignment									Lowest Lab Dropped	Total	Overall %
	1	2	3	4	5	6	7	8	9			
A	9.38	9.13	7.11	8.67	7.06	8.10	8.96	7.65	8.80	7.06	67.78	84.73
B	9.19	9.78	7.20	8.83	8.94	4.82	6.75	0.00	8.01	0.00	63.53	79.41
C	9.88	9.78	9.89	9.67	10.00	9.84	9.79	10.00	10.00	9.67	79.18	98.97
Total	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	80.00	100.00

Note. The assignments will be adjusted to a 10 point scale so they are equally weighted.

ACADEMIC REGULATIONS AND POLICIES:

Students should familiarize themselves with the academic regulations and policies regarding appeals, withdrawal dates, and academic misconduct (such as plagiarism, cheating and examination impersonation). See Section VII of the 2021-2022 Course Calendar, which can be found online: <http://www.uwinnipeg.ca/index/calendar-calendar>

COPYRIGHT POLICIES:

Students may not create audio or video recordings of the Zoom lab meetings with the exception of those students who have a documented accommodation request with Accessibility Services and have spoken to the lab instructor prior to recording any lectures.

Students creating unauthorized audio or video recording of lab lectures violate an instructor's intellectual property rights and the Copyright Act of Canada. Lab materials, assignments and recordings may not be reproduced, posted or shared anywhere without explicit permission from the lab instructor. Students violating this agreement may be subject to disciplinary actions under the University of Winnipeg Academic Misconduct Policy.

SERVICES FOR STUDENTS WITH DISABILITIES:

Students with documented disabilities requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., access to volunteer note-takers) are encouraged to contact the Coordinator of Disability Services (DS) at 786-9771, to discuss appropriate options. Specific information about DS is available on-line at <http://www.uwinnipeg.ca/index/services-disability>. All information about disability is confidential.

TENTATIVE LABORATORY SCHEDULE Fall 2021

Week of	Topic	Readings
Sept 13	0. Math Review	Chapter 1 & Appendix A
Sept 20	1. Summation and Descriptive Measures	Chapters 2, 3, & 4 (Omit - interquartile range 95-96)
Sept 27	2. Introduction to Hypothesis Testing	Chapter 5
Oct 04	3. Standard Scores & Normal Distribution	Chapter 6 & 7 for z table
Oct 11	<i>Reading Week – No Classes</i>	
Oct 18	4. Sampling Distribution of the Mean & Single Sample Tests	Remainder of Chapter 7 & first part of Chapter 9
Oct 25	5. Paired t-tests & Confidence Intervals	Chapter 8 & last part of Chapter 9
Nov 01	6. Independent Sample t	Chapter 10
Nov 08	7. ANOVA	Chapter 11 (omit 341-343)
Nov 15	8. Chi Square	Chapter 15
Nov 29	9. Correlation & Regression	Chapters 13 (omit 421-422) & 14 (omit 451-454, 464-469)

VOLUNTARY WITHDRAWAL:

Final date for voluntary withdrawal without academic penalty is **Thursday, November 16, 2021**. **You must formally withdraw from a course. If you simply stop going to classes, you may receive an “F” on your transcript and loss of tuition credit.

OTHER IMPORTANT DATES:

Labs begin on the week of September 13, 2021. Labs end during the week of November 29, 2021. There are no make-up classes for the lab in the Fall Term. Evaluation period is December 9 – 22, 2021.

The University is closed for holidays and there are no classes on the following dates:

- September 6, 2021 (Labour Day)
- September 30, 2021 (National Day of Truth and Reconciliation Day)
- October 11, 2021 (Thanksgiving)
- November 11, 2021 (Remembrance Day)
- December 23, 2021 — January 4, 2022 (December Break)