Mary Baldwin University
PSYC 250L – Behavioral Statistics
Online Tutorial
Fall 2020

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Text: Nolan and Heinzen, *Statistics for the Behavioral Sciences*, 4th Edition. (Third edition is also fine.) Worth Publishers. ISBN – 13: 978-1-319-06734-2

Course Description: This course is designed to give students an overview of the basic concepts and principles of statistical analysis as used in the behavioral sciences. Students will learn the statistical theories behind and rationale for these analyses, as well as how to conduct them by hand (with use of a calculator). Students should come away from this class knowledgeable of the types of statistical analyses that are appropriately used for different research designs. They should also be able to critically evaluate the appropriate use of statistics by others.

Course Requirements:

1.) **Homework Assignments:** Each week there will be a homework assignment that is due at the end of the following week. It is critical that these homework assignments be completed on schedule as the material in this course builds on itself. Falling behind on the homework assignments will likely result in a failure to complete the class in good standing. (Worth 40% of your grade.)
2.) **Quizzes –** There will be 12 quizzes to be taken over the course of the semester. They will be 5 question multiple choice quizzes taken on blackboard. The questions will relate to that weeks assignment. Quizzes may be taken as frequently as needed to get a perfect score. (Worth 10% of your grade)
3.) **Exams** – There will be three exams in this class. The exams must be taken on time and under conditions consistent with the Mary Baldwin University honor code. The first two exams will each be worth 15% of your grade. The final exam will be worth 20% of your grade.

Course Schedule:

Dates	Reading Assignment	Assignments Due
Week 1 (8/24-8/28)	**Chapters 1-3** – An introduction to basic statistics and research design, frequency distributions and visual displays of data	
Week 2 (8/31-9/4)	**Chapter 4** – Central tendency and variability	**HWA #1** **Quiz 1**
Week 3 (9/7-9/11)	**Chapter 5** – Sampling and Probability	**HWA #2** **Quiz 2**
Week 4 (9/14-9/18)	**Chapter 6** – The normal curve, standardization and z scores	**HWA #3** **Quiz 3**
Week 5 (9/21-9/25)	**Chapter 7** – Hypothesis testing with z tests	**HWA #4** **Quiz 4**
Week 6 (9/28-10/2)	**Chapter 8** – Confidence Intervals, effect size, and statistical power	**HWA# 5** **Quiz 5** **Exam One**
Week 7 (10/5-10/9)	**Chapter 9 -** The single-sample t-test	**HWA #6** **Quiz 6**
Week 8 (10/12-10/16)	**Chapters 10 & 11** – The paired-samples t-test and the independent samples t-test	**HWA #7** **Quiz 7**
Week 9 (10/19-10/23)	**Chapter 12** – Between Groups ANOVA	**HWA #8** **Quiz 7**
Week 10 (10/26-10/30)	**Chapter 13** – Within groups ANOVA	**HWA #9** **Quiz 8** **Exam Two**
Week 11 (11/2-11/6)	**Chapter 14** – Two-way between groups ANOVA	**HWA #10** **Quiz 9**
Week 12 (11/9-11/13)	**Chapters 15 & 16** – Correlation and regression	**HWA# 11** **Quiz 10**
Week 13 (11/16-11/20)	**Chapter 17** – Chi-Square tests	**HWA # 12** **Quiz 11**

Week 14 **Thanksgiving Break** **HWA #13**
(11/23-11/26) **Quiz 12**

Week 15 **Final Exam Week**
(11/30-12/4)

Final exam and any remaining work due by December 4th

Honor Code:

Students are expected to abide by the Mary Baldwin University honor code and conduct themselves accordingly. Any form of plagiarism, cheating, or dishonesty will be reported to the Dean.

Late Policy:

Without prior notification and a valid excuse, late assignments will be marked down half a letter grade for every week they are late. Keeping your instructor informed is critically important! Because the material in this class builds upon itself, handing in assignments late or missing assignments altogether will severely impair your ability to successfully master the material. It is better to hand in assignments on time, even if you know there are mistakes. Assignments that are more than two weeks late will not be accepted unless the student contacts me by the original due date and has extenuating circumstances.

Extension Policy:

At the student's request, extensions may be granted to those who have not completed all the course work by the MBU declared deadline for the given semester. However, students must have completed at least half of the required work in a good faith effort and/or have extenuating circumstances in order to be approved for an ET.

E-mail Activation:

All MBU students are required to activate their MBU issued e-mail accounts. These accounts will be one of the primary sources for communication from the instructor and are thus crucial for your success in this course.

Group Work:

With the exception of quizzes and exams students are permitted to help one another with their assignments. For instance, consulting a classmate about the correct way to work out a problem is perfectly acceptable. However, each student must complete her or his assignment individually (e.g. you can't simply copy someone else's answers).