

**Mary Baldwin University**  
**PSYC 250L – Behavioral Statistics**  
Online Tutorial  
Spring 2021

**Instructor:** Patricia L. Murphy  
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**Text:** Nolan and Heinzen, *Statistics for the Behavioral Sciences*, 4th or 5<sup>th</sup> Edition.

**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 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 Canvas. The questions will relate to that week’s 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: (HWA stands for Homework Assignment)**

<b><u>Dates</u></b>	<b><u>Reading Assignment</u></b>	<b><u>Assignments Due</u></b>
<b>Week 1</b>	<b><u>Module One</u> - Chapters 1-3 – An introduction to basic statistics and research design, frequency distributions and visual displays of data</b>	<b>HWA1 Quiz 1</b>
<b>Week 2</b>	<b><u>Module Two</u> - Chapter 4 – Central tendency and variability</b>	<b>HWA2 Quiz 2</b>
<b>Week 3</b>	<b><u>Module Three</u> - Chapter 5 – Sampling and Probability</b>	<b>HWA3 Quiz 3</b>
<b>Week 4</b>	<b><u>Module Four</u> - Chapter 6 – The normal curve, standardization and z scores</b>	<b>HWA4 Quiz 4</b>
<b>Week 5</b>	<b><u>Module Six</u> - Chapter 7 – Hypothesis testing with z tests.</b>	<b>HWA5 Quiz 5 Exam One</b>
<b>Week 6</b>	<b><u>Module Seven</u> - Chapter 8 – Confidence Intervals, effect size, and statistical power</b>	<b>HWA6 Quiz 6</b>
<b>Week 7</b>	<b><u>Module Eight</u> - Chapter 9 - The single-sample t-test</b>	<b>HWA7 Quiz 7</b>
<b>Week 8</b>	<b><u>Module Nine</u> - Chapters 10 &amp; 11 – The paired-samples t-test and the independent samples t-test</b>	<b>HWA8 Quiz 8</b>
<b>Week 9</b>	<b><u>Module Eleven</u> - Chapter 12 – Between Groups ANOVA</b>	<b>HWA9 Quiz 9 Exam Two</b>
<b>Week 10</b>	<b><u>Module Twelve</u> - Chapter 13 – Within groups ANOVA</b>	<b>HWA10 Quiz 10</b>
<b>Week 11</b>	<b><u>Module Thirteen</u> - Chapter 14 – Two-way between groups ANOVA</b>	<b>HWA11 Quiz 11</b>
<b>Week 12</b>	<b><u>Module Fourteen</u> - Chapters 15 &amp; 16 – Correlation and regression</b>	<b>HWA12 Quiz 12</b>
<b>Week 13</b>	<b><u>Module Fifteen</u> - Chapter 17 – Chi-Square tests</b>	<b>HWA13 Quiz 13</b>

**April 19 - Final due date for all work- Final exam and any remaining homework must be submitted by this date to be considered.**

**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).