University of Wisconsin Stevens Point

PSYC300 – Statistics for Psychologists, Sections 03
Fall, 2018
Lecture: T/R 11-12:15pm @ D216
Lab 5: T 3-4:50pm @ B238
Lab 6: R 3-4:50pm @ B238

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Office: SCI D-239
Office Hours: T/W/R @ 10-10:50am; T/R @ 2-2:50pm.

Required Text

Textbook: *Using and Interpreting Statistics (3rd ed.)* by Corty

Recommended Texts

Discovering Statistics Using SPSS by Field

IBM SPSS Statistics 21 Step by Step: A simple Guide and Reference. by George & Mallery

You **do not need to buy these – however, these are *excellent* resource if you foresee yourself doing research in the future.

*You will also need a **scientific calculator** for this course.

I strongly encourage a Ti-83 or 84 graphing calculator. I will show you how to use it to do some statistical operations.

You are not allowed to use it to skip calculation steps for homework and exams, but you can certainly use it to check your answers.

Prerequisites

This is a basic statistics course that meets the requirements for the Psychology Major as well as several other majors on campus. This course also meets the Quantitative Literacy requirements for the General Education Program. It is expected that you have already accrued a basic understanding of the fields of mathematics and psychology. As such, it requires that you have completed PSYC 110 (Introduction to Psychology) and MATH 100 (College Algebra) or their equivalents. It is strongly recommended that you have also completed PSYC 200 (Research Methods in Psychology).

Course Description and Objectives

This course will introduce you to statistical reasoning and the application of basic statistical (descriptive and inferential) procedures. This course is intended to provide an understanding of

why a particular statistic is appropriate for a given experimental design as well as the "inner workings" of each statistical test. Students completing this course should be able to:

- Understand the reasoning behind the use of various statistical tools and tests
- Identify which statistical technique or test is appropriate for different research situations
- Describe the results of an experiment and make inferences based on these results
- Calculate and interpret various descriptive and inferential statistical tests
- Identify and interpret various types of statistical graphs and charts
- Communicate statistical issues and results to non-statisticians in a clear and understandable manner
- Be comfortable using a hand calculator and statistical software (e.g., Excel & SPSS) to calculate statistics

Grades:

Exams: 100 points each, total of 300 points

3 exams will be given throughout the semester to assess your understanding of the content provided in the readings and lectures. Due to the nature of the material, the exams will be **comprehensive**.

Homework: 15 points each, total of 150 points

Throughout the semester, there will be 10 homework assignments. These will be brief and fairly easy, given you have paid attention in class and kept up with the readings. No late assignments will be accepted. Homework assignments will be given to you during class. The due dates will be listed on the homework handouts.

Lab Assignments: **15 points each, total of 150 points**

There will be a total of 10 lab assignments. This will give you the opportunity to apply your knowledge and further your understanding in a real way. This will also give you the chance to use Excel and SPSS (statistical software commonly used in psychology). These will be due at the end of each lab day (11:59pm). No make-up labs will be allowed.

Final Project: **100 points**

Toward the end of the semester, you will receive a data set and a set of questions. You will need to perform the correct method of analysis, and then report your results in the correct form. You are expected to complete this independently. The instructor will only offer minimal assistance in this project.

Letter Grades (percentages)

A:	100-94	C+:	79-77
A-:	93-90	C:	76-74
B+:	89-87	C-:	73-70
B:	86-84	D+:	69-67
B-:	80-83	D:	66-60

Class Policies

Attendance: No formal attendance will be recorded for this course. However, it is strongly recommended for students to attend every lecture to receive the full benefit of this course. In addition, absent individuals are expected to obtain lecture notes and information on their own (e.g., from class mates).

Makeups: Makeup opportunities for late/missed assignments will only be granted for **valid** reasons that can be substantiated by students.

In Class Technology: No technology except for your calculator is permitted during exams, unless you have prior approval from the Disability Services office or other pertinent units on campus. Laptops are **not** permitted for note taking purposes during lectures.

Disability: In accordance with the University policy, if a student has a documented disability and requires accommodations to obtain equal access in this course, he or she should notify the instructor at the beginning of the semester and make this need known. Students with disabilities must verify their eligibility through Disability Services (DS: LRC 609, 715-346-3365). To learn more about DS, go to: http://www.uwsp.edu/disability/Pages/default.aspx. To learn more about the university's policies/procedures, go to: http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf

Professionalism: The instructor and students in this course will adhere to the University's general Codes of Conduct defined in the University's Community Rights and Responsibilities. The Code of Academic Conduct (Academic Honesty Policy) requires that students do not engage in academic dishonesty. For details, refer to:

- *Community Rights and Responsibilities* (*http://www.uwsp.edu/dos/Documents/CommunityRights.pdf*)
- *Academic Misconduct Webpage (* http://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx)

My Policy: Be respectful to yourself, your fellow students and your instructor throughout the semester. Disruptive/disrespectful behavior will not be tolerated.

Tentative Schedule

Wks	Dates	Class Topic	Lab Topic (Room number)
1	9/4 9/6	Syllabus Introduction to Statistics	N/A
2	9/11 9/13	Graphical Representation of Data Frequency Distributions	1. Introduction to statistical software: Excel & SPSS.
3	9/18 9/20	Central Tendency and Variability	2. How to graph on computer
4	9/25 9/27	Standard scores and the normal distribution	3. Calculate central tendency and variability
5	10/2 10/4	Review/Catch-up Exam 1	4. Calculate Z-scores
6	10/9 10/11	Sample and Probability	Go over exam 1
7	10/16 10/18	Introduction to Hypothesis Testing	N/A
8	10/23 10/25	The Single-Sample t-Test	5. The basics of hypothesis testing
9	10/30 11/1	Independent -Samples t-Test Paired-Sample t-Test	6. Running t-tests on SPSS
10	11/6 11/8	Review/Catch-up Exam 2	7. Running 2-sample t-tests on SPSS
11	11/13 11/15	One-Way ANOVA	Go over exam 2
12	11/20 11/22	Online Happy Thanksgiving	N/A
13	11/27 11/29	Repeated-Measures ANOVA Two-Way ANOVA	8. Running ANOVA in excel and SPSS
14	12/4 12/6	Correlation Regression	9. Repeated-Measures and Two-Way ANOVA in SPSS
15	12/11 12/13	Review/Catch up Review/Catch up	10. Correlation and Regression in SPSS
Final	12/18	2:45-4:45pm	

*****The instructor reserves the right to amend this syllabus as deemed necessary and will communicate any changes to the class.

Study Hints!

- The key to doing well in any statistics course is keeping up with the material. Each new topic builds on the previous one; so, if you keep up with the reading and homework, each new topic is just a small step forward. If you fall behind in readings and/or studying, this material can seem overwhelming very quickly. PLEASE – see me as soon as possible if you find yourself having difficulties. If you wait too long it may be too late to catch up. We want you to do well in this course, but it is your responsibility to ensure that you are earnestly *trying* to do well.

- Reading/skimming the new material just before class can do wonders for retention. You may not understand it the first time you read it, but if you prepare for class you will at least understand the general concept and will be ready to learn the details.

- This is not material that you can learn by cramming. It takes small study sessions a few times a week to be able to integrate this material effectively and successfully.

- Unless you know the materials already, I strongly advice that you come to every class session. Each class's topic will be built on previously learned topics. Therefore, attendance is essential in this class.