PSYC 300
Introductory Statistics
Course Syllabus, Spring 2017

Course Philosophy

PSYC 300 is an introductory course in statistics that focuses on the various methods that psychologists use to analyze behavioral data within the context of the scientific method. This course is one of two courses that provides a scientific foundation for your behavioral science major. This course revolves around basic statistics as they relate to the field of psychology. The three major areas of investigation will be description, prediction, and explanation. You will learn when each statistic is appropriate, how to employ each research method, how to analyze the data collected using the appropriate statistical technique, and what the data mean. The course will interweave theory with application to demonstrate the importance of statistical analysis appropriately applied. Since data collection and analysis often use computer technology, you will also learn how to employ the Statistical Package for the Social Sciences (SPSS). The methods you learn in this course will lay the foundation, and are the tools, for the rest of your psychology program at UWSP and will prove invaluable in your future careers.

Course Materials

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). Applied statistics for the behavioral sciences. (5th ed.). Boston: Houghton Mifflin Company.

Instructor: Justin Rueb **Office:** B301 Science Bldg **Phone:** 346-2191
Email: Justin.Rueb@UWSP.edu
Class Section: 1 Lecture MW (8:00:-9:15) Lab T (8-10)
                    2 Lecture MW (8:00:-9:15)   Lab T (10-12)
Room: D223 Science Bldg   Lab: D214/B228 **Office Hours:** T 1-3, W 1-2, by appointment

Course Goals

By the time you finish this course, you will:

- Gain an *understanding* of the statistical procedures used in behavioral science research.
- *Know* the difference between parametric and statistical usage.
- *Understand* the underlying probabilities and distributions of various statistics.
- *Apply* basic statistical tests to investigate a psychological research question.
- *Apply SPSS* computer knowledge to analyze the data.
- *Acquire* an objective and reflective attitude toward behavioral phenomena.

Course Structure and Policies

Unrestricted Joint Effort - For any assignment presented in this course, ***excluding exams and daily questions***, you may work with anyone and use any outside sources. However, the final product must reflect your own work and ideas. ***Any exceptions must be duly noted through proper documentation techniques***. This policy means that if you work with someone, you must state who that individual was. I strongly encourage the use of fellow students to assist in your learning prior to your submittal for grade.

Attendance - University policy dictates all students will attend class. Failure to attend class will result in missed DQs and missed information vital to all grading aspects of the course. Exams may be made up

within a week of returning to class, as coordinated with the instructor. Homework is **due when noted** in the syllabus unless prior arrangements have been made with the instructor. Please do not be late to class.

Late turn-in policy - The policy for this unlikely event will be a 10% reduction in your score for each day the paper is late up to one week. After one week, the assignment will result in a "0." Homework is due at the start of class and is considered late after that time, unless coordinated with your instructor. Any exceptional circumstances that may result in an unforeseen late submission (e.g., hospitalization, emergency) will be coordinated (in advance when possible) with your instructor.

Cell Phones and Electronic Recording Devices - All cell phones are to be turned off. Should a phone ring in class, I will be more than happy to answer that phone and talk to the caller. Anticipated emergency phone calls can be pre-arranged with the instructor, but the call must be answered outside of the classroom. Electronic recording devices for recording lectures must be pre-approved by the instructor.

Student's Rights and Responsibilities – Understanding your rights and responsibilities as students is an important aspect of your education here at UWSP. Your instructor expects you to understand and adhere to these rights and responsibilities in accordance with UWSP policy. Accordingly, students are encouraged to visit the Community Rights and Responsibilities document on-line.

Course Withdrawal - Students must withdraw from class in a timely manner in accordance with published deadlines. Failure to do so could result in a failing grade or the loss of reimbursable tuition fees. The published deadlines can be found on-line.

Academic Honesty – If I suspect that a violation of academic honesty has occurred, I will pursue disciplinary sanction in accordance with UWS/UWSP 14, "Student Academic Standards and Disciplinary Procedures," of the Wisconsin Administrative Code, Rules of the Board of Regents of the University of Wisconsin System. Copies of UWS/UWSP Chapter 14 are located on-line and in paper form at The Office of Students Rights and Responsibilities, each residence hall, the Reserve Desk of the Learning Resources Center, the University Center Information Center, and the office of each academic dean.

Miscellaneous. Bring your book, calculator, paper, and pencil to every class. Be sure to clean up after yourselves.

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Emergency Response Guidance:

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Medical Emergency. Call 911 or use Red Emergency Phone (List Location). Offer assistance if trained and willing to do so. Guide Emergency Responders to victim.

Tornado Warning. Proceed to the lowest level interior room without window exposure at _____. (List primary location for shelter closest to class). See www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx for floor plans showing severe weather shelters on campus. Avoid wide-span rooms and buildings.

Fire Alarm. Evacuate the building in a calm manner. Meet at west end of Gym (Swimming pool side). Notify instructor or emergency command personnel of any missing individuals.

Active Shooter: Run/Escape, Hide, Fight. If trapped hide, lock doors, turn off lights, spread out and remain quiet. Follow instructions of Emergency Responders.

See UW-Stevens Point Emergency Management Plan at www.uwsp.edu/rmgt for details on all emergency response at UW-Stevens Point."

Title IX. *Under several federal and state laws, and according to several university guidelines, I am required to report acts of a criminal or offensive nature.* This includes acts of sexual harassment and assault, bias and hate crimes, illicit drug use, and acts of violence. Any disclosure or description of these incidents – both current and in the past – may be reported to the Dean of Students office (http://www.uwsp.edu/dos/) or the local authorities.

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Course Evaluation

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Students will have many opportunities to demonstrate the statistical skills that they develop throughout the course. The course is comprised of 1000 points. The course has at least 20 daily questions, 5 homework problem sets, 2 examinations, and a final. The exams will test student knowledge of the course material and will draw heavily from course discussion and homework problem sets.

Classroom Attendance & Participation (CAP) Points (100 points)
     CAP points account for 10% of a student's grade in the course. These points are awarded at the end of the semester based on how well and how often a student participates in the class or provides items of interest (e.g., articles, cartoons) to the instructor that can assist in another student's learning. These points may also come from pop quizzes or unlisted outside assignments. Should students fail to participate in class, they can expect to receive no better than 65 of 100 points. Active oral participation is essential to do well in this portion of the grading. You can also expect to be downgraded in this area for **more than three** absences.

Daily Questions (DQ-100 points)
      To encourage daily preparation and to reward those who do, students will answer one or two daily questions at the start of most classes. Each question will be worth 5 points. A total of 20 questions will comprise your overall grade. When answering your daily question, you may use any study notes that you made prior to class. Since daily questions come directly from the book or the slides, it is advisable for you to take notes and read the lesson. Photocopies of another student's notes do not constitute note preparation on your part. You may **not** use your textbook for the daily question. If you miss a DQ, you will simply miss the question for that day. This course **does not allow** for the make-up of DQs.

 Examinations (300 points total-2 @ 150 points each)
     Examinations test the daily reading and classroom discussions with objective (multiple choice/fill-in-the-blank), problem solutions, and subjective (essay) components. Examinations will evaluate a student's knowledge of the subject area. The first part of the examination will be closed book. When you have completed the closed book portion, you will turn in that portion of the test and being part two, which is open book. Although the second examination is not considered comprehensive, the nature of statistics requires the application of previous knowledge for all examinations.

Homework Problem Sets (250 total points-5 @ 50 points each)

Students will complete five take-home problem sets concerning statistics/experimental procedures previously taught in class. These data sets will address experimental concerns and provide statistical solutions to be completed by hand and through the use of the SPSS package. Each problem set is worth 50 points, **due at the start of class**, or it will be considered late. You are expected to **show all work**. The failure to show all work will result in a lower grade. Partial credit is awarded for this reason, as the instructor needs to see that you understand the process of obtaining the answer, not just the answer. You can not receive full credit without showing all of the work. Be sure to turn in neat and legible handwriting, as I will not struggle for long in trying to read your handwriting. You will lose points if I cannot read the answer.

Final Exam (250 points)

The final exam will consist of three sections, containing 25 multiple-choice questions worth 3 points each, 10 fill-in-the-blanks worth 3 points each, and approximately 5 work-out problems, worth 10-50 points each. The final examination will be comprehensive. Your work throughout the course should prepare you well for the final.

Bonus Points (15 Points maximum)

To encourage an in-depth reading and review of this syllabus and other course material, this instructor will award any student 1 point (up to a maximum of 15 points-1.5% of your grade) for any error that s/he discovers in any of the instructor's written documents. (Note: This policy does not include email.) The email should state what course and section you are in and the error (e.g., PSYC 300-Section 1: The word "eror" found on slide 2 of the normal distributions lesson should be spelled "error."). Only the first individual who notifies the instructor of the error will receive the point. So as not to interrupt the class, students must notify the instructor before or after class via email. E-mail is the acceptable method of notification as this technique provides this instructor with a traceable record for assigning the bonus points. Only students who email the error will get credit. Verbal notification is not enough. However, if two students should have the same error listed, I will use the date/time of the message to indicate who was first. The instructor will keep a master copy of the student's name for each error for each document. Since I strive to produce the best product possible, this approach will help me reach my goal of zero errors in my materials. Should a student also receive a verbal bonus point in class, that student must again email the instructor reminding him of that bonus point award on that day. Delayed (more than 2 days) or non-notification results in loss of the bonus point(s).

Course Summary

Daily Questions (DQs)	20 @ 5 pts. each	100
Exams	2 @ 150 pts. each	300
Homework Problem Sets	5 @ 50 pts. each	250
CAP Points		100
Final		250
Total		1000

THE MEANING OF GRADES IN PSYC 300

       Since scores on homework and examinations reflect the student's ability, instructor's grading tendencies, and the difficulty of the test, a contract grade schedule for this course would be inappropriate. Therefore, this course will not use a rigid contract for converting percentages to letter grades. However, this course will use the following guidelines to assign points on all assignments and projects. Although final grade cuts may be associated with lower percentages, these guidelines do represent guaranteed grades for achieving these percentage levels. For example:

A	94-100	B+	88 – 89.99	C+	78 – 80.99	D+	67 – 70.99
A-	90-93.99	B	84 – 87.99	C	74 – 77.99	D	64 – 66.99
		B-	81 – 83.99	C-	71 – 73.99	F	Below 64

PSYC 300 Spring 2017 Schedule

JANUARY

Date	Lesson Topic	Readings	Due Items
23	Lab Introduction	Syllabus	**Good Attitude**
24L	*Lab 1a: Scales of Measurement*	*LAB 1*	
25	Scales of Measurement	Syllabus, 1-16	
30	Experimental Variables	Chapter 1	
31L*	*Lab 2:* **Organizing and Graphing Data**	*LAB 2**	**Read Chapter 2**

FEBRUARY

Date	Lesson Topic	Readings	Due Items
1	Organizing and Graphing Data	Chapter 2	
6	Describing Distributions	Chapter 3	
7L*	*Lab 3: Describing Distributions & Correlation*	*LAB 3**	
8	The Normal Distribution	Chapter 4	
13	Correlation	Chapter 5	**Homework #1**
14L*	*Lab 4: Correlation (Cont.) & Linear Regression*	*LAB 4**	**Read Chapter 6**
15	Correlation & Linear Regression	Chapters 5-6	
20	Linear Regression	Chapter 6	**Homework #2** **(Due Feb 22 @ 1600)**
21	***Exam 1- To be Taken in class during lab period. (D214)***	**Chapters 1-6**	**Exam 1**
22	*TBA*		
27	*Exam 1 Review*	Chapter 7	
28	Sampling and Probability Distributions	Chapter 7	

MARCH

Date	Lesson Topic	Readings	Due Items
2L	*Lab 6: Sampling and Probability*	*LAB 5*	
7	Hypothesis Testing	Chapter 8	
8	*Lab 6: Sampling and Probability*	*LAB 6*	
8L	Hypothesis Testing/ One-Sample Case for the Mean	Chapters 8 & 9	
13	One-Sample Case for the Mean	Chapters 9	
14L*	*Lab 7a: One-Sample Case for the Mean*	*LAB 7a**	
15	One-Sample Case for the Mean	Chapters 9	
18-26	**Have a Great Spring Break**		
27	One-Sample Case for the Other Statistics	Chapters 10	
28L	**Lab 7b: One-Sample Case for the Other Statistics**	**LAB 7b**	
29	One-Sample Case for the Other Statistics	Chapter 10	Homework #3

* Report directly to computer laboratory (B238 SCI Bldg, Section 1: East Lab; Section 2: West lab)

APRIL

Date	Lesson Topic	Readings	Due Items
3	Two-Sample Case for the Mean	Chapter 11	
4L	*Lab 8: Two-Sample Case for the Mean*	**LAB 8**	
5	Two-Sample Case for the Mean	Chapter 11	
10	Two-Sample Case for the Other Statistics	Chapter 12	
11L*	*Lab 9: Two-Sample Case for the Other Statistics*	*LAB 9**	
12	Two-Sample Case for the Other Statistics/ Exam 2 Pregame	Chapter 12	**Homework #4**
17	*Power & Sample Size*	**Chapter 13**	
18	**Exam 2**	**Chapters 7-12**	
19	**Exam 2 Review**	**Chapter 13**	
24	Power & Sample Size, ANOVA	Chapter 13/14	
25L	**Lab 10: Power and Sample Size/ANOVA**	**LAB 10**	
26	ANOVA	Chapter 14	

MAY

Date	Lesson Topic	Readings	Due Items
1	ANOVA		
2L*	*Lab 11a: ANOVA/ Multiple Comparisons*	*LAB 11a**	
3	ANOVA	Chapters 14, 15	
8	Multiple Comparisons	Chapter 15	
9L*	*Lab 11b: ANOVA/ Multiple Comparisons*	*LAB 11b**	**Homework #5** *Due at 3 p.m.*
10	End of Course Discussion	Chapter 15	
12	**Take Home Final Due (Friday)**		**Due @ 1600 hrs**
18	**Final Exam: Thursday, 10:15-12:15**	**Chapters 1-15**	**Final**

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