



## Psych 300: Statistics

Spring Semester, 2018

University of Wisconsin- Stevens Point

### DESCRIPTION

This goal of this course is to introduce you to the statistics, descriptive and inferential, that you will need in order to understand the field of psychology, and specifically, to read and understand journal articles in psychology. You will learn how to reason statistically, to analyze data sets, what statistics to apply in given situations, and in general, how to understand traditional experimental statistical design in psychology. This class encompasses both the practical and theoretical; you will learn the reasoning underlying statistical design but also how to run simple programs and how to apply the stats to experimental design.

### COURSE INFORMATION

Instructor: Dr. Patrick Conley  
E-mail: Patrick.Conley@uwsp.edu  
Office & Phone: D261 Science  
Office Hours: TuW 1-2

### TIME AND LOCATION OF CLASSES:

Lecture: 9:30 - 10:45 Mondays and Wednesdays in SCI D216  
Section 3: 9:00 - 10:50 Thursdays in D214  
Section 4: 11:00 - 12:50 Thursdays in D214

### REQUIREMENTS OF PSYCHOLOGY 300:

#### REQUIRED MATERIALS

The textbook for this course is Aron, Coups, and Aron (2013) *Statistics for Psychology* (6<sup>th</sup> Edition). Some material will be made available online or handed out in class as well.

Calculators: Calculators will be necessary to complete most of the homework assignments and are also allowed in the exams. Most calculators (even simple ones) are sufficient for the computational requirements of this course, so getting a calculator that would make Bill Gates envious is not necessary.

Computers: After we start working on inferential statistics (later in the term), some of your homework will involve using a statistical software package called SPSS. This is available on all standard campus load computers through the Network menu. Don't worry; we will spend a fair amount of time in class discussing how to operate this program.

#### REQUIRED PERFORMANCE

1. Satisfactory performance on examinations
2. Consistent class attendance (though class attendance itself will not be graded, systematically missing classes will almost certainly lead to poor exam performance)
3. Careful reading of the assigned readings in a timely manner. This means reading the text material the weekend before the week for which it is assigned
4. Attendance at the scheduled exam times. NO MAKE-UP EXAMS WILL BE ADMINISTERED EXCEPT FOR SERIOUS PERSONAL OR FAMILY EMERGENCIES WITH APPROPRIATE DOCUMENTATION. If you

have such an emergency, you must attend the one-time-only makeup period I assign. If you do not, you will receive a zero on the exam.

5. Homework assignments must be handed in ON TIME. No credit will be given for any late assignments without express advanced permission given by me. This permission will only be given in the case of emergencies or other serious causes. You must turn in your homework in the beginning of the section **to which you are registered**.
6. Although group study and group work on homework assignments is permitted, you must at least write up your own homework assignment that is to be turned in. Any photocopying, etc. of assignments will result in Fs on the assignment for all students involved.

## ASSIGNMENT AND EXAMINATION SCHEDULE

**Homework Assignments (30%)** There will be regular (weekly) homework assignments that you must complete and hand in on-time. These assignments will be given out in Lab and will generally be due in lab, except as noted in the schedule below; I require you to make a copy of your homework assignments. One will be turned in at the beginning of class, and the other you can use as a reference as we go over the problems. **You must show all work** for full credit. Problems not showing any work will receive little if any credit. There are 12 homework assignments in this class, so each homework assignment is worth about 2.5% of your final grade. Therefore, missing more than a few homework assignments will lower your letter grade without exception.

**Exams (70%)** There will be 3 exams in this course, 2 midterms and a final. Each is therefore worth 23% of your grade. The exam will consist of both closed book and open book sections. The closed book sections will consist of multiple choice and short answer material. The open book section will consist of more conceptual problems and calculations, similar in nature to the problems you answer in homework (which, if you think about it, are open-book tests themselves) and will require you to demonstrate your theoretical understanding of the material.

## LECTURE AND ASSIGNMENT SCHEDULE

A tentative schedule follows. Certain subjects may take less or more time than they are scheduled for below. The assigned readings in Coup et al. should be read *prior to* the class for which that chapter is listed.

Date	Topic	Readings and Due
Jan. 22	Introduction to Statistics	ACA Ch. 1
Jan. 24	Stats Terms	
LAB:	Introduction	Homework #1
Jan. 29	Scales of measurement, variables	ACA Ch. 2
Jan. 31	Frequency distributions, Central Tendency	
LAB:	Cover topics/homework from Week 2	Homework #2
Feb. 5	Variance and Standard Deviations	ACA Ch. 3
Feb. 7	Normal Distributions/ Z scores	
LAB:	Cover topics/homework from Week 3	Homework #3
Feb. 12	Z's continued, Correlation	ACA Ch. 11
Feb. 14	Correlation & Regression	
LAB:	Cover topics/homework from Week 4	Homework #4
Feb. 19	Regression	
Feb. 21	Questions and Review	
LAB:	EXAM 1 (Feb. 22 <sup>nd</sup> )	
Feb. 26	Introduction to Hypothesis testing	ACA Ch. 4

Feb. 28 LAB:	Hypothesis testing (cont.) Go over exam; Week 6 Review	Homework #5
March 5 March 7 LAB:	Distributions of Means Zs for samples Cover topics/homework from Week 7	ACA Ch. 5 Homework #6
March 12 March 14 LAB:	One sample t-test Dependent Measures t-test Cover topics/homework from Week 8	ACA Ch. 7 Homework #7
March 19 March 21 LAB:	Independent Measures t-test Effect Size and Power Cover topics/homework from Week 9	ACA Ch. 8 Homework #8
<b>Spring Break Week</b>		
April 2 April 4 LAB:	Effect Size and Power Exam Review <b>EXAM 2 (April 5<sup>th</sup>)</b>	ACA Ch. 6
April 9 April 11 LAB:	Oneway ANOVA SPSS and ANOVA Go over exam; Week 11 Review	ACA Ch. 9 Homework #9
April 16 April 18 LAB:	Post Hoc Tests Factorial ANOVA Cover topics/homework from Week 12	ACA Ch. 10 Homework #10
April 23 April 25 LAB:	Repeated Measures Designs Repeated Measures Designs Cover topics/homework from Week 13	Handout Homework #11
April 30 May 2 LAB:	Chi-Square Chi-Square Cover topics/homework from Week 14	ACA Ch. 13 Homework #12
May 7 May 9 LAB:	Other Statistics Useful for Psychology Review for Final Exam NO LAB	ACA Ch. 15
May 17 <sup>th</sup>	Final Exam (Thursday) 10:15-12:15	

## GRADING SCALE

Grade	Percentage
A	100-91%
A-	90%
B+	89%
B	88-81%
B-	80%

Grade	Percentage
C+	79%
C	78-71%
C-	70%
D+	69%
D	68-60%

## SPECIAL NEEDS

Special needs (ADD, ADHD, or other physical, psychological, or learning conditions that require special arrangements) must be handled through the Disability Services Office. Please note that even short term disabilities (such as breaking your leg) can also be handled through this office. The Disability Services Office will handle special testing needs, materials, etc.

## **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 at: <http://www.uwsp.edu/news/uwspcatalog/academic.htm#Drop/Add>

## **POLICY ON CHEATING AND ACADEMIC MISCONDUCT**

Students are responsible for understanding the nature and avoiding the occurrence of plagiarism and other academic offenses. Note that such offenses include cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or elsewhere. If you are in doubt about whether what you are doing is appropriate, consult your instructor. A claim that you didn't know it was wrong will not be accepted as an excuse.

## **USING ELECTRONIC DEVICES**

To maintain the integrity of in-class exams, the use of electronic devices (**excepting standard calculators**) will not be permitted during exams without prior documented approval from the Disability Services office or other pertinent offices on campus. This includes, but is not limited to, requests to use cellular or wireless network-enabled mobile devices for foreign language translation assistance. Students who are found using these devices will be dismissed and receive a zero for their exams. Other penalties will be considered under the misconduct policy. Moreover, students who arrive late to an exam will only be allowed to take it if they arrive before the first student finishes and leaves the room. After that point, requests to take exams will be declined unless they are consistent with the makeups policy

## **STUDENT'S RIGHTS AND RESPONSIBILITIES**

UWSP values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, a set of expectations has been developed (see <https://www.uwsp.edu/stuaffairs/Documents/RightsRespons/rightsCommBillRights.pdf>) for both students and professors. All students are expected to be familiar with and to abide by these expectations.

## **EMERGENCY PROCEDURES**

In the event of a medical emergency call 911 or use Red Emergency Phone. Offer assistance if trained and willing to do so. Guide Emergency Responders to victim.

In the event of a tornado warning, proceed to the lowest level interior room without window exposure at SCI C181. Avoid wide-span rooms and buildings. [www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx](http://www.uwsp.edu/rmgt/Pages/em/procedures/other/floor-plans.aspx) shows other floor plans providing severe weather shelters on campus. In the event of a fire alarm, evacuate the building in a calm manner. Meet at the front of the Health Enhancement Center (HEC) Notify instructor or emergency command personnel of any missing individuals.

Active Shooter - Run/Escapes, 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](http://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.