

Psych 311 Syllabus
Elementary Statistics in Psychology
Fall, 2009 Tuesday/Thursday 1:25-3:15pm

Instructor

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COURSE DESCRIPTION

Psychology 311 is a 4-credit introductory course in understanding and applying statistical methods in the behavioral and social sciences. After taking this course, students should be able to recognize, understand, critique, and apply many of the various analytical methods used in academic journals and the popular media.

Note to the math-leery: If you want to become a mathematician or statistician, this course will prepare you for more advanced courses in statistics. However, you do not need to be a math whiz to succeed in this course! There will be many calculations to perform, but these require nothing more than elementary high school algebra. To assess your level of Algebra knowledge, **there will be an ungraded Algebra Quiz during our next class.** If you do poorly on this quiz, you are strongly encouraged to either (a) obtain an Algebra tutor or (b) drop this class and take remedial Algebra coursework before re-enrolling.

REQUIRED MATERIALS

- (1) Gravetter & Wallnau (2008). Essentials of Statistics for the Behavioral Sciences, 6th Edition. New York: Thomson Wadsworth. Available at the bookstore (softcover book)
- (2) Lane, D. (2002). Lab Manual for Psychology 311. Download off the web at: <http://www.vancouver.wsu.edu/fac/probst/311/labmanual.pdf>
- (3) Scientific Calculator. I strongly encourage you to use a hand calculator for doing your assignments. Calculators will also be permitted during quizzes. I would much rather you spent your time developing an understanding of the statistical concepts rather than adding and dividing numbers! A simple scientific calculator should do.
- (4) Thumb/Flash Drive. We will be doing a lot of statistics work in the computer lab. So, you will need a thumb drive (USB drive) to store your data files. In real life, statisticians rarely perform computations by hand; therefore, it only seems fair to show you how you can put your increasing knowledge to work using advanced statistical software commonly used by scientists and practitioners today. **Please remember to bring your thumb drive to class each day!** Also, when working with thumb drives, please do not work from the drive. Rather, save files to the hard drive, work on them, then at the end of class, copy all files to your thumb drive. Also, save files to your computer at home, so you have backups in case / when the USB drive fails...

EXAMS

There will be five quizzes, each worth 50 points and lasting the entire class period. If you miss a quiz for **any** reason, **there will be a cumulative make-up exam on December 8th**. I absolutely understand that unforeseeable events can and do occur; however, this seems to be the fairest policy for all students. If you do not miss any quizzes, you are not required to take the make-up exam. However, if you wish to try to improve your grade, you may take the make-up, and if you do well, that grade may be substituted for a lower quiz grade.

You will be allowed to bring a calculator to the exams. All formulas and tables needed to answer exam questions will be provided during the exam. When studying for exams, remember that you will need to show all your work to get full credit for your answers. *Quiz Study Guides can be downloaded from the web at: www.vancouver.wsu.edu/fac/probst/311*

HOMEWORK ASSIGNMENTS

There will be 13 homework assignments each worth 10 points. They are based on the lectures and reading material. **Homeworks are due the following class period by 3:15pm. Late assignments will not be accepted.** If you cannot make it to class, you must hand in the assignment early, have a trusted classmate hand it in for you, or fax it to me at 546-9038 by 3:15pm on the day it is due. I award half credit for getting the correct answer and half credit for showing the correct process. Therefore, you must show all your work to get full credit for your answers.

ORGANIZATIONAL FEEDBACK REPORT (OFR) PROJECT

We will have the opportunity to apply what we learn in class to real data collected from a local organization. You will be working in groups to conduct and interpret the results from a series of analyses designed to provide this company with useful information regarding how they might improve workplace safety. In doing so, you will prepare a professional feedback report containing your summary of findings and eventual recommendations. There will be 10 OFR assignments total, each worth 10 points. You will also present a poster of your findings on the last day of class (also worth 10 points). Finally, because this is a group project, it is important that everyone contributes to the success of the project. Therefore, you will anonymously grade each other on all group members' contributions. This will also be worth 10 points. **Due dates for each assignment are noted in the syllabus and OFR handout.** See OFR Handouts for more information. Additional materials are also posted online at the Psych 311 website.

GETTING ASSIGNMENTS BACK TO YOU

We will work very hard to get your homework assignments back to you on the next class day. However, as you look at the course schedule, you will notice that there are several assignments that are due the day before a Quiz. For those assignments, it is logistically impossible to get them back to you before the Quiz. Therefore, if you wish to get feedback on these assignments, I am happy to accept early assignments from you or go over the assignments with you during office hours or in class. As you can see though, I have scheduled labs every day before quizzes, so chapter HWs are never due the day of the Quiz.

Quiz grades will be posted *asap* after each quiz. I will try to go over quizzes in class, particularly those questions that many students miss. However, if you wish to go over your quiz in greater detail, I strongly encourage you to either see me or Wendi during office hours or make an appointment.

EXTRA CREDIT

Up to 5 points of extra credit may be earned through conducting additional analyses in conjunction with OFR assignment #9 (see OFR handouts for more info). Additional opportunities may be available sporadically throughout the semester.

GRADING POLICY

The grading policy is as follows:

Five exams @ 50 points each:	250 points
Thirteen HW assignments @ 10 points each:	130 points
10 OFR assignments @ 10 points each:	100 points
OFR Poster @ 10 points:	10 points
Individual Group Project Grade @ 10 points:	<u>10 points</u>
TOTAL POSSIBLE:	500 points

Grades will be determined as follows:

<u>Grade</u>	<u>Percent Total</u>	<u>Number of Points</u>
A	93-100	465 – 500
A-	90-92.99	450 – 464.99
B+	87-89.99	435 – 449.99
B	83-86.99	415 – 434.99
B-	80-82.99	400 – 414.99
C+	77-79.99	385 – 399.99
C	73-76.99	365 – 384.99
C-	70-72.99	350 – 364.99
D+	67-69.99	335 – 349.99
D	60-66.99	300 – 334.99
F	<60	<300

There will be no rounding up. These cutoffs are fixed, so please do not ask me to make exceptions at the end of the semester. It is not fair to the other students who abide by this policy. If you start struggling in the class, PLEASE see me!!! I am here to help you learn and succeed.

COURSE READINGS

The course readings are outlined below in the Course Calendar. Each chapter should be read in its entirety except where noted. **Please read the assigned chapters before they are covered in class.** It will make you a much more informed listener and will make the learning process much easier. I will occasionally cover topics NOT discussed in the book. You are responsible for this material and it will show up on the quiz, so it is in your best interest to attend all lectures.

Homework questions are listed in the Course Calendar. They are taken from the “Problems” section at the end of each chapter. Remember, these are due the class period after they are assigned (see calendar for exact due dates).

Although I will try to stick to this syllabus as much as possible, changes may occur if extra time is needed for a more complete understanding of the material. Any changes will be announced well in advance.

Additional Course Policies and Student Resources

Quantitative Skills Center (Math Lab):

The QSC offers free drop-in math tutoring and can help with many of the statistics topics we cover throughout the semester. Contact Joe Randall (546-9344) for more information.

SRC Tutoring Program:

Statistics tutoring may be available from the Student Resource Center (SRC) which serves as a referral point for tutors and tutees. Students who request tutoring services will pay \$10 per 60-minute session. All the tutoring sessions take place on Vancouver campus. Financial aid may be available. For more information, visit: www.vancouver.wsu.edu/ss/src/tutor/tutoringservices.html

Disability Issues:

Appropriate academic accommodations are available for students who have a documented disability. If you need accommodations for this course, please notify me during the first week of class. Students requiring special accommodations due to a disability should contact the Disability Services Program Coordinator (VSSC Lower Level, 546-9138) to make accommodations.

Personal Counseling Services:

WSU Vancouver provides students with personal counseling. For more information or to make an appointment, visit www.vancouver.wsu.edu/counseling or contact Dr. William Meek, Counseling Services, at 546-9238 or willmeek@vancouver.wsu.edu.

Severe Weather/Emergency Closure:

WSU Vancouver does not close except under the most adverse conditions. If classes are cancelled or delayed, it will be announced on radio, television, the WSU Vancouver web page and/or www.flashalert.net. You can register for the WSU **emergency notification system** at myWSU with emergency contact information (cell, email, text, etc). In the event of a **Building Evacuation**, a map at each classroom entrance shows the evacuation point for each building.

Cheating/Plagiarism:

Students are expected to uphold the WSU standard of conduct relating to academic dishonesty (see WSU Student Handbook, WAC 504-26-404). Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that student's own work. Students shall be guilty of violating the honor code if they:

- Represent the work of others as their own.
- Use or obtain unauthorized assistance in any academic work.
- Give unauthorized assistance to other students.
- Modify, without instructor approval, an examination, paper, record or report for the purpose of obtaining additional credit.
- Misrepresent the content of submitted work.

The penalty for violating the honor code is severe. The first offense will result in a grade of zero on the assignment/exam in question. A second offense will result in a failing grade for the course. All offenses will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

COURSE CALENDAR

WEEK	Tuesday	Thursday
WEEK ONE	LECTURE Syllabus Review OFR Project Review: An Investigation of Safety in the Workplace Algebra Review	LECTURE Chapter 1: Introduction to Statistics Algebra Quiz OFR Group Assignments
WEEK TWO	OFR 1: Methods of Scientific Inquiry Experimental/Observational/Survey CH 1 due (4, 8, 14, 18, 22)	LECTURE Chapter 2: Frequency Distributions
WEEK THREE	LECTURE Chapter 3: Mean, Median, and Mode CH 2 due (10, 12, 14, 18, 20)	OFR 2: Library Resources and Literature Searches Review for Quiz OFR 1 due CH 3 due (4, 14, 18, 22, 26)
WEEK FOUR	QUIZ 1	LECTURE Chapter 4: Standard Deviation and Variance OFR 2 due
WEEK FIVE	LECTURE Chapter 5: Z-Scores CH 4 due (2, 4, 10, 14, 26)	LECTURE Chapter 6: Probability CH 5 due (2, 4, 14, 20, 24)
WEEK SIX	OFR 3: Introduction to SPSS; Data Preparation & Recoding CH 6 due (2, 10, 16, 22, 24)	QUIZ 2
WEEK SEVEN	LECTURE Chapter 7: Probability, Samples, and the Normal Distribution OFR 3 due	OFR 4: Frequency Distributions CH 7 due (2, 8, 16, 20, 22)
WEEK EIGHT	LECTURE Chapter 8: Hypothesis Testing	LECTURE Chapter 9: The t-Statistic OFR 4 due

		CH 8 due (2, 8, 10, 14, 16)
WEEK NINE	OFR 5: Using Descriptive Statistics to Summarize Large Quantities of Data; Creating Tables CH 9 due (2, 12, 14, 18, 20)	QUIZ 3
WEEK TEN	OFR 6: Using Percentiles and z-Scores to Draw Comparisons; Expanding Tables OFR 5 due	LECTURE Chapter 10: Hypothesis Tests with 2 Independent Samples
WEEK ELEVEN	OFR 7: Using t-tests to Draw Comparisons between Two Groups; Creating Excel Graphs CH 10 due (2, 4, 8, 18, 20)	LECTURE Chapter 13: Analysis of Variance OFR 7 due
WEEK TWELVE	OFR 8: Using ANOVAs to Draw Comparisons among Multiple Groups; Creating Excel Graphs CH 13 due (4, 14, 16, 18, 22)	QUIZ 4
WEEK THIRTEEN	LECTURE Chapter 15: Correlation OFR 8 due	LECTURE Chapter 15: Regression CH 15a due (2, 4, 6, 8, 10)
WEEK FOURTEEN	THANKSGIVING BREAK!!	
WEEK FIFTEEN	OFR 9: Describing Relationships; Making & Plotting Predictions CH 15b due (18, 20, 22, 24a&b, 28)	QUIZ 5; Course Evaluations OFR 9 due
WEEK SIXTEEN (DEAD WEEK)	MAKEUP EXAM	POSTER PRESENTATIONS FINAL OFR (OFR 10) DUE

Reminder: There is no final exam in Psychology 311!!!