



WICHITA STATE
UNIVERSITY

Psy 301, Psychological Statistics, Spring 2018

Instructor:	Dr. Jibo He
Department:	Psychology
Office Location:	Jabara Hall room 432
Telephone:	(217) 417-3830
Email:	professorhejibo@gmail.com
Preferred Method of Contact:	email
Office Hours:	Tuesday and Thursday 2pm to 3pm
Classroom; Days/Time:	Lindquist Hall room 429C, Tuesday and Thursday 11:00-12:15
Prerequisites:	Psych 111: General Psychology; Knowledge of math through high school
Teaching Assistant:	Kevin Morales
TA Contact Info:	mevinkorales@gmail.com

How to use this syllabus

This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves. Any needed changes will be communicated by email and Blackboard announcement.

Academic Honesty

Students are responsible for knowing and following the Student Code of Conduct http://webs.wichita.edu/inaudit/ch8_05.htm and the Student Academic Honesty policy http://webs.wichita.edu/inaudit/ch2_17.htm.

Course Description

PSY 301. Psychological Statistics (3). Introduces basic quantitative techniques for the description and measurement of behavior, as well as tests for making decisions regarding the compatibility of data to scientific hypotheses. Covers probability models t , chi square and F . Prerequisites: PSY 111.

Definition of a Credit Hour

Success in this 3-credit hour course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction and preparation/studying or course related activities for a total of 135 hours.

Specific Course Goals:

1. To teach you how to select the appropriate method(s) of data analysis for a given research question.
2. To help you understand the equations that define data analysis concepts in mathematical form.
3. To teach you to identify and select the appropriate computational equations for the relevant methods of data analysis.
4. To teach you how to apply the equations to data to compute appropriate statistics.
5. To teach you to interpret the results for the psychological problem that motivated the analysis.

Measurable Student Learning Outcomes

Upon successful completion of this course, students will be able to:

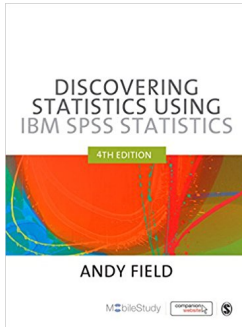
- Organize numbers generated by research data collection and set of numbers to execute statistical

- procedures designed to allow inference about significance and effect size in scientific research
- Understand the inferences allowed by the result of statistical procedures

Required Texts/Readings Textbook

Textbook: Caldwell, S. (2012). *Statistics Unplugged* (4th ed.). Wadsworth/Cengage Learning. See link https://www.amazon.com/Statistics-Unplugged-fourth-Caldwell-Paperback/dp/B00OVM4L5I/ref=sr_1_fkmr1_2?ie=UTF8&qid=1515819522&sr=8-2-fkmr1&keywords=Caldwell%2C+S.+%282012%29.++Statistics+Unplugged+%284th+ed.%29.

Supplemental Text (Suggested):



Field, A. (2013). *Discovering Statistics Using IBM SPSS*. Washington, DC: Sage.

Other Equipment/Materials

Calculator: Sharp EL-243SB (available online). The calculator itself says SHARP ELSI MATE EL-243S on its face. This is the ONLY calculator you will be permitted to use during Exams and Quizzes. See link, https://www.amazon.com/Sharp-EL-243SB-Pocket-Calculator-8-Digit/dp/B001E69EKG/ref=sr_1_1?ie=UTF8&qid=1515819485&sr=8-1&keywords=Sharp+EL-243SB

SPSS: A statistical software. Available at <http://webs.wichita.edu/?u=userservices&p=/studentspss/>

SPSS

Work at home download for students

Students at WSU can receive discounted subscriptions for SPSS. Price varies per package.

1. To begin this process, login to your myWSU account. JPEG Image
2. Click on the blue HELP cube in the upper right-hand corner that looks like the image on the right
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3. Click on the "Agreements and Software Downloads" link.
4. Click on the "WSU Software HUB" link.
5. View and follow the instructions displayed there.

Lectures and Textbook Readings:

The textbook will support and supplement the lecture material, so you should refer to the textbook as necessary to understand the lecture material. Material that is presented on the screen during lectures will be posted at the course web site shortly after each lecture.

Class Protocol (Suggested)

- Each attendance will be given one credit. There is no penalty for no show. But the faculty reserve the rights and possibility to fail a student with at least four no shows. I do not want to fail any students or anyone, but this statistical

course is demanding no matter who teach it and it is important for your professional careers.

- No cell phone use during lecture.
- Students are encouraged to ask questions and answer questions.

Grading Scale

WSU uses a +/- grading scale for final grades and to calculate grade point averages. In this class, grades are assigned according to the following chart. (*Note: the chart below is a sample that may be used*). (Other classes might assign grades differently: Be sure to understand the different grading scales in all of your classes.)

Points/percentages, as instructor chooses	Letter grade	Grade Points	Interpretation
$94 \leq A \leq 100\%$	A	4.00	<i>The A range denotes excellent performance.</i>
$90 \leq A < 94\%$	A-	3.70	
$87 \leq B+ < 90\%$	B+	3.30	
$84 \leq B < 87\%$	B	3.00	<i>The B range denotes good performance.</i>
$80 \leq B- < 84\%$	B-	2.70	
$77 \leq C+ < 80\%$	C+	2.30	
$74 \leq C < 77\%$	C	2.00	<i>The C range denotes satisfactory performance.</i>
$70 \leq C- < 74\%$	C-	1.70	
$67 \leq D+ < 70\%$	D+	1.30	
$64 \leq D < 67\%$	D	1.00	<i>The D range denotes unsatisfactory performance.</i>
$60 \leq D- < 64\%$	D-	0.70	
$0 \leq F < 60\%$	F	0.00	<i>F denotes failing performance.</i>

Assignments (Required)

WAYS TO EARN POINTS IN THIS COURSE

The total score for this course is 700, which is composed of:

- (1) Exams: 550
- (2) In-class activities: 30
- (3) Quizzes (and Homework): 100
- (4) Extra points opportunities, cheat sheet: 20

(1) Exams:

- There will be 4 non-cumulative exams (each worth 100 points) and a cumulative final exam (150 points). Thus, it is possible to accumulate **550** points on exams.
- Exams will be based on material from the Sally text book as well as lecture material.
- Students who arrive late will be able to take the exam, but **STUDENTS WHO ARRIVE AFTER THE FIRST STUDENT HAS FINISHED THE EXAM WILL NOT BE PERMITTED TO TAKE THE EXAM.**
- All regularly-scheduled exams will include some combination of multiple-choice questions and written problems to be solved. (The written problems will involve doing computations, writing your answer, and showing your work.) Please bring a #2 pencil to class on exam days.
- You are allowed to have a one-page cheat sheet for all five exams. The cheat sheet is in either a A4 or letter

size paper. It has to be handwritten and be out of your own effort. You can earn four extra points for each one cheat sheet.

- **Bring a photo ID to class on exam days.**

- During exams, students will not be permitted to listen to audio reproduction devices (e.g. personal stereos).

Students also will be asked to turn off cell phones and place them out of sight.

- University policy requires that make-up tests be made available in very limited circumstances. Unless your situation fulfills the criteria outlined by the University, **REQUESTS FOR MAKE-UP EXAMS WILL NOT BE CONSIDERED**. The Instructor alone will determine whether an absence is legitimate. Exams will be given on the dates shown on the Schedule at the end of this syllabus.

(2) In-class activities:

During the lecture discussions, your names might be called to answer certain questions. Additional bonus activity points will be given based upon satisfactory in-class performance. Throughout the semester, maximum bonus points are **30** in total.

(3) Quizzes (and Homework):

Quizzes are intended to test your mastery of the material on a regular basis. Quiz questions will be based on the homework problems. Completing and understanding the homework should be adequate preparation for the Quizzes. You should try to work out the homework problems on your own before consulting the answers or obtaining help from others.

Here are details of how the Quiz system works:

- a. At the end of most LECTURES, you will be assigned homework problems. Complete the homework problems on paper, showing all your work. (If you want to keep a copy of your homework, be sure to make a copy before you hand it in.)
- b. At the start of the Thursday lecture, turn in your homework. Homework **will not** be graded, but you must turn in your homework or your Quiz score will not be counted (you will receive zero points for that Quiz). Your homework must reflect a genuine effort on your part to complete the problems. This is a judgment call on the part of GTA Kevin Morales, so show all of your work and make it clear that you attempted to complete the problems.
- c. Take the QUIZ at the marked date in the Blackboard system. Before each quiz, TA will give you 20 minutes for review and Q&A in class.

Disabilities

If you have a physical, psychiatric/emotional, or learning disability that may impact on your ability to carry out assigned course work, I encourage you to contact the Office of Disability Services (DS).

The office is located in Grace Wilkie Annex, room 150, (316) 978-3309 (voice/tty) (316-854-3032 videophone). DS will review your concerns and determine, with you, what academic accommodations are necessary and appropriate for you. All information and documentation of your disability is confidential and will not be released by DS without your written permission.

Counseling & Testing

The WSU Counseling & Testing Center provides professional counseling services to students, faculty and staff; administers tests and offers test preparation workshops; and presents programs on topics promoting personal and professional growth. Services are low cost and confidential. They are located in room 320 of Grace Wilkie Hall, and their phone number is (316) 978-3440. The Counseling & Testing Center is open on all days that the University is officially open. If you have a mental health emergency during the times that the Counseling & Testing Center is not open, please call COMCARE Crisis Services at (316) 660-7500.

Diversity and Inclusive

Wichita State University is committed to being an inclusive campus that reflects the evolving diversity of society. To further this goal, WSU does not discriminate in its programs and activities on the basis of race, religion, color, national origin, gender, age, sexual orientation, gender identity, gender expression, marital status, political affiliation, status as a veteran, genetic information or disability. The following person has been designated to handle inquiries regarding nondiscrimination policies: Executive Director, Office of Equal Employment Opportunity, Wichita State University, 1845 Fairmount, Wichita KS 67260-0138; telephone (316) 978-3186.

Intellectual Property

Wichita State University students are subject to Board of Regents and University policies (see http://webs.wichita.edu/inaudit/ch9_10.htm) regarding intellectual property rights. Any questions regarding these rights and any disputes that arise under these policies will be resolved by the President of the University, or the President's designee, and such decision will constitute the final decision.

Shocker Alert System

Get the emergency information you need instantly and effortlessly! With the Shocker Alert System, we will contact you by email the moment there is an emergency or weather alert that affects the campus. Sign up at www.wichita.edu/alert.

Tentative Schedule

Date	Topics, Readings, Assignments, Deadlines
January 16, 2018	Introduction to the Course; Scales of Measurement; Summation Notation (ch 1)
January 18, 2018	Frequency Distributions; Graphing
January 23, 2018	Measures of Central Tendency; Measures of Variability (ch 2)
January 25, 2018	Probability and normal curves (ch 3)
January 30, 2018 Before Class	Quiz 1 DUE via blackboard. Digital submission only.
January 30, 2018	The standardized normal curve
February 1, 2018	z-scores
February 6, 2018 Before Class	Quiz 2 DUE via blackboard. Digital submission only.
February 6, 2018	Continue on z-score & Linear relationships
February 8, 2018	Review, Q & A **EXAM 1** (50 minutes) (Mods. 2, 3, 4, 5, & 6) PLEASE BRING A PHOTO ID AND #2 PENCIL
February 13, 2018	Correlation and Linear Regression
February 15, 2018 Before Class	Quiz 3 DUE via blackboard. Digital submission only.
February 15, 2018	More correlations
February 20, 2018	Probability
February 22, 2018	Sampling distribution (Chapter 5)

February 27, 2018	More sampling distribution and Hypothesis Testing
March 1, 2018	Continue Hypothesis Testing and confidence interval
March 6, 2018 Before Class	Quiz 4 DUE via blackboard. Digital submission only.
March 6, 2018	Single-Sample z-test and Single-Sample t-test
March 8, 2018	**EXAM 2** PLEASE BRING A PHOTO ID AND #2 PENCIL
March 13, 2018 Before Class	Quiz 5 DUE via blackboard. Digital submission only.
March 13, 2018	Independent-Groups t-test
March 15, 2018	t-test for Correlated Groups
March 20, 2018	Spring BREAK March 19 to 25 – no classes Sometimes you NEED a break ☺
March 22, 2018	
March 27, 2018	Significance test for r
March 29, 2018 Before Class	Quiz 6 DUE via blackboard. Digital submission only.
March 29, 2018	Decision Errors
April 3, 2018	Significance test for r: Review for exam 3
April 5, 2018	**EXAM 3** PLEASE BRING A PHOTO ID AND #2 PENCIL
April 10, 2018 Before Class	Quiz 7 DUE via blackboard. Digital submission only.
April 10, 2018	Continue on Decision Errors; Comparing More than Two Groups
April 12, 2018	Comparing More than Two Groups
April 17, 2018	ANOVA
April 19, 2018	Repeated Measures ANOVA; More than One IV: Main Effects and Interactions Calculating and Interpreting Two-Way ANOVA
April 24, 2018	**EXAM 4** PLEASE BRING A PHOTO ID AND #2 PENCIL
April 26, 2018 Before Class	Quiz 8 DUE via blackboard. Digital submission only.
April 26, 2018	Linear Regression and Multiple Regression
May 1, 2018	Nonparametric Tests: Chi-Square Tests & Tests for Ordinal Data
May 3, 2018	Final Exam Preparation: Review Come to lecture with questions
May 5- 10, 2018	**FINAL EXAM** Lindquist Hall room 429C PLEASE BRING A PHOTO ID AND #2 PENCIL

*** This syllabus is subject to change at the Instructor's discretion. ***
*** Changes will be announced during lecture. ***
