

**UNIVERSITY OF THE INCARNATE WORD  
Psychology Department**

**Course Outline**

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**COURSE NO:** PSYC/SOCI 3381  
**COURSE TITLE:** Statistics for the Behavioral Sciences  
**FACULTY:** John M. Velasquez, Ph.D.  
**TIME:** Tuesday & Thursday 11:55 – 1:10 PM  
**ROOM:** NB 205  
**OFFICE:** NB 110      **OFFICE PHONE:** 829-3960  
**OFFICE HOURS:** TTh 8:00-10:00 AM (other hours by appointment)  
**E-MAIL:** velasque@universe.uiwtx.edu

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**COURSE OBJECTIVES and OUTCOMES:**

This course examines the statistics most commonly used in the study of sociology, psychology, and social problems, with special emphasis upon frequency distributions, measures of central tendency, variability, correlation and tests of significance, chi-square, and non-parametric tests (p. 248, Undergraduate Bulletin). Prerequisites: MATH 1304 or permission of instructor. This is a course to prepare psychology, political science, and sociology majors to effectively participate in the research process of their respective discipline.

- To be familiar with the basic logic of statistical reasoning;
- To be able to use basic statistical concepts and procedures;
- To show the interconnections between theory, methods and statistics;
- To be able to interpret statistical information, particularly from articles in research journals
- To know the basic techniques of descriptive and inferential statistics

**REQUIRED TEXT:**

Gravetter, F., & Wallnau, L.B. (2002). Essentials of statistics for the behavioral sciences, 4<sup>th</sup> edition. Pacific Grove, CA: Brooks/Cole Publishing.

## COURSE REQUIREMENTS:

1. **Exams:** There will be four exams for the course. Exams will count 4/5 (80%) of your final grade; therefore, each exam is worth 1/5 (20%) of your final grade. The exams will be a combination of problem solving and multiple choice. Some of the multiple choice exams will involve calculations. The final exam is not a cumulative exam. There will be no make-up exams except in the cases of illness (and only with medical documentation) or with the prior approval of the professor.
2. **Homework:** There will be daily homework assignments for this course selected by the professor from the problems at the end of each chapter. Only even-numbered problems will be assigned since answers for odd-numbered items are provided by the textbook. You are encouraged to complete as many of the odd-numbered items as possible to help you learn. The homework grades will count for 1/5 (20%) of your final grade for this course. Your homework will be accepted only before or during the class period following a specific assignment (e.g. if homework is assigned on Tuesday, it will be due in class on Thursday and accepted only before or during class on Thursday). There will be no exception to this policy. If necessary, have a classmate or friend deliver your homework to NB 110 prior to class to ensure you get credit for homework.

The homework will be graded on the following basis:

- 3 = very thorough, complete, correct
- 2 = mostly correct, minor errors (even errors in calculation)
- 1 = serious errors (use of wrong formula, incomplete homework)
- 0 = no answer

**NOTE:** There will be between 12-15 homework assignments announced during the semester. Even though this many assignments, not completing just one can have a significant, negative effect on your grade. Some students tend to stop doing homework in the second half of the semester. This practice seriously jeopardizes your overall grade. Students who do this also end up making lower grades on exams because they are not adequately prepared. The probabilities are that you cannot make an A in this course unless you do all homework.

## GRADING SCALE:

The grading scale for the four exams, the homework, and the computation of the final grade will be as follows:

90 -	100	A
88 -	89	B+
80 -	87	B
78 -	79	C+
70 -	77	C
60 -	69	D
0 -	59	F

**Attendance:** As indicated in the attendance policy of UIW, instructors are permitted to advise student who miss more than 15% of all meetings to withdraw from the course. Attendance policy of UIW allows students to miss classes due to University sponsored events (“excused absences”); therefore, the attendance policy of this course allows for such absences with appropriate University documentation. [Other absences (family and medical) will also require some form of written documentation.] However, if any combination of unexcused and excused absences totals more than 15% of class meetings, your professor may advise you to withdraw from the course.

**NOTE:** If there are extenuating circumstances and you believe your circumstances warrant special consideration, you must communicate these circumstances to the instructor prior to or immediately following a missed class session. It will always serve your best interests if you communicate with the professor prior to or immediately following every absence.

**Academic Honesty:** Cheating, plagiarism, and other acts of dishonorable conduct can result in the student receiving a sanction for the assignment and also may result in a referral to the Dean’s Office, VP for Academic Affairs and Student Life, and/or the Honor Board. Refer to the student handbook for specifics of this policy (pp. 66-70).

### Hints for Success

1. You do not have to memorize formulas. Keep your formula sheet and use it during exams. You may add additional formulas to your formula sheet as needed.
2. Read carefully and come to class having read the assignments.
3. Do not read ahead in the textbook. In fact, do not even think about future material. Stay focused only on the assignment at hand.
4. Bring your text, your hand-held calculator, and your formula sheet to every class.
5. Always ask questions in class when something is not clear to you. I encourage a dialogue between you and me during class to hash out problems and procedures.
6. Get your homework in on time, every time.
7. Do not develop a statistics phobia. If you can add, subtract, multiply, divide, and hit the square root button on your calculator, you will pass this course. You will make an A or B if you become an active participant in class and during preparations for class. Remember: This is statistics, not calculus or trigonometry. The book offers a mathematics review section to help you with fundamental math skills.
8. Use my office hours. See me whenever you need help.
9. Find a study partner. Do your homework assignments together, if possible.
10. This class is as much about thinking in statistical and mathematical ways as it is about learning formulas. If you concentrate too much on just learning formulas you will not succeed. You have to develop thinking skills about how and why statistics is used.

**TENTATIVE CLASS SCHEDULE**  
(Professor reserves the right to alter the schedule at any time\*)

<b>DATES</b>	<b>TOPIC</b>	<b>ASSIGNMENT(S)</b>
January 17 Thursday	Introduction to the Course	
January 22 Tuesday	Introduction to Statistics	Chapter 1
January 24 Thursday	Frequency Distributions	Chapter 2
January 29 Tuesday	Central Tendency	Chapter 3
January 31 Thursday		
February 5 Tuesday	Variability	Chapter 4
February 7 Thursday		
February 12 Tuesday	<b>Examination #1</b>	
February 14 Thursday	z scores	Chapter 5

February 19 Tuesday	Probability	Chapter 6
February 21 Thursday	Probability and Samples	Chapter 7
February 26 Tuesday		
February 28 Thursday	Introduction to Hypothesis Testing	Chapter 8
March 5 Tuesday		
March 7 Thursday	<b>Examination #2</b>	
March 11-15	<i>Spring Break (no classes)</i>	
March 19 Tuesday	Introduction to the t Statistic	Chapter 9
March 21 Thursday  NOTE: 3/22 Last day to drop with "W"	Hypothesis Tests with Two Independent Samples	Chapter 10
March 26 Tuesday		
March 28 Thursday	Hypothesis Tests with Related Samples	Chapter 11

April 2 Tuesday		
April 4 Thursday	<b>Examination #3</b>	
April 9 Tuesday	Estimation	Chapter 12
April 11 Thursday		
April 16 Tuesday	Introduction to Analysis of Variance	Chapter 13
April 18 Thursday		
April 23 Tuesday	ADVISING DAY (No class)	
April 25 Thursday	Correlation and Regression	Chapter 15
April 30 Tuesday	Chi-Square Statistic	Chapter 16
May 2 Thursday		
May 9	<b>Examination #4 (10:00-12:00 noon)</b>	

- *Note: This schedule is tentative. The student is responsible for any changes announced in class.*

The University provides support services for students with disabilities. Any student who anticipates the need for assistance, support services, or reasonable accommodations related to a disability should contact Connie Kuwamoto at 805-5813.

**Disability Statement:**

The University provides support services for students with disabilities. Any student who anticipates the need for assistance, support services, or reasonable accommodations related to a disability should contact Lorena Novak, Coordinator of Student Disability Support Services (146 AD).

1/19/00