

# Syllabus for PSY 305

## Statistics

Psychology Department

University of La Verne

Spring 2007

### Section I: The Instructor

Instructor's Name:

Dr. Ngoc Bui

Course website:

<http://faculty.ulv.edu/~bui>

Methods of Contacting Instructor:

[bui@ulv.edu](mailto:bui@ulv.edu)

Hoover 216

909-593-3511 ext. 4099

Office Hours:

**MWF 11:30am-12:30pm; 3pm-4:30pm**

### Section II: The Course

Course Description: Statistics (MWF 8:30am-9:40am)

This course presents basic theories and concepts of descriptive and inferential statistics used in psychology. The information learned from this course will be specifically relevant to other required courses in the major, including Computer Data Analysis (PSY 395), Research Methods (PSY 390) and Senior Project (PSY 499). The course adheres to the University of La Verne's Mission in the following ways:

1. Values Orientation: The course encourages students to reflect on ways statistics can be used and applied to various aspects of their lives and their future professional careers. This will ultimately shape the values they currently place on statistics and math in a positive way.
2. Life-Long Learning: Statistical skills can be applied to any aspect of the learner's life and environment, including personal, family, school, and work, and therefore can continually be used throughout the learner's life.

### Course Objectives:

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

- 1) Understand the terminology and special notation of statistical analyses
- 2) Learn how statistical techniques fit into the general process of science
- 3) Organize, describe, and present data
- 4) Understand, calculate, and describe the following inferential statistics
  - a. ANOVA
  - b. T-test
  - c. Correlation
  - d. Chi-square
- 5) Select appropriate tests for data

### Required Materials:

Gravetter, F.J., & Wallnau, L.B. (2005). *Essentials of statistics for the behavioral sciences, 5<sup>th</sup> Ed.* Belmont, CA: Thomson/Wadsworth Publishers.

Scantron sheets for exams (can be purchased in the ULV Bookstore), FORM 6/882-E

Calculator with square root function and memory key. Statistical calculator is preferable but not necessary.

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## Section III, Part A: Instructor Responsibilities

### Methods of Instruction:

This course will be presented using a combination of lecture, discussion, and group activities. Outside reading and other information gathering activities may be assigned. Other multi-media techniques may be employed to enhance the learning experience.

### Methods of Assess Student Progress

Final grades will be determined based upon completion of the following requirements:

- a) The Instructor will take attendance at all class meetings for students' records.
- b) Five-question multiple-choice quizzes covering lecture material are given
- c) Homework assignments will consist of 5 questions per assignment for a total of 13 assignments. All assignments must be submitted at the beginning of class on the day the assignment is due. Type or neatly print your work and answers.
- d) Exams: Following each Unit (2-4 chapters per unit) will be a 30-point exam (multiple-choice and short-answer) for a total of 5 exams. Material covered will include readings from the text and lecture. There will be no comprehensive final.
- e) Extra credit points may be earned for participating in psychological research studies. The maximum amount awarded for participation will be 5 points. You will receive 1 point per 2 studies in which you participate. You need to keep a copy of the consent form given at the time of the research as proof of your participation. Turn these consent form copies in at the END of the term.

### Make-up Procedures and Late Assignments

Homework: All homework assignments will be deducted **3 points** per **hour** they are late.

Missed Quizzes can not be made up.

Exams: For whatever reason, you can make-up any missed exam. All make up exams will be deducted **10%** AND there will be a **\$20** exam makeup fee assessed for every make-up exam. Payments should be made to Student Accounts in Woody Hall. Tell the cashier that you are paying a makeup exam fee for the "Undergraduate Psychology Program". Bring your receipt prior to your make-up exam as proof of payment and schedule your make-up with the instructor.

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## Final Course Grade

Attendance	39 points (39 days of school)
Quizzes:	25 points (5 quizzes x 5 points each)
Exams	150 points (5 exams x 30 points each)
Homework:	130 points (13 assignments x 10 points each)
Total:	344 points

## Grade Breakdown:

A	92-100%
A-	90-91%
B+	88-89%
B	82-87%
B-	80-81%
C+	78-79%
C	72-77%
C-	70-71%
D	60-69%
F	below 60%

## Maintenance of Student Records

All exams and assignments will be returned to the student or available for pick-up by the student for review after grading. The Instructor will retain a permanent record of each student's grade for one year from the last date of the course.

## **Section III, Part B: Students' Responsibilities**

### Attendance statement:

Students are expected to attend all class meetings. You cannot contribute to nor benefit from class meetings that you miss.

### Names of Other Students in the Class

1. \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_
2. \_\_\_\_\_ Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_

### Academic Honesty Statement and Conduct:

All your written assignments may be turned in to a plagiarism service (e.g., Turnitin.com) to check for its authenticity. The University imposes specific disciplinary actions in response to incidents of academic misconduct (cheating, plagiarism, etc.). Cheating on any assignment or plagiarizing any work will result in failure from the course. In addition, the student must complete the Multimedia Integrity Teaching Tool (MITT) in order to not be dismissed from the college. Please refer to the University of La Verne Catalog for information about rights and responsibilities of students.

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## Section IV: Projected Schedule of Assignments

All dates are approximate depending on how we progress. Any changes in deadlines for assignments will always be announced in class. Please adjust your calendars accordingly.

Week 1:	2/05	Introductions, Syllabus Chapter 1: Introduction to Statistics (pp. 2-15)
	2/7	Finish Chapter 1 (pp. 16-26) <u>Homework Assignment #1: Chapter 1 (2, 7, 15, 20, 24)</u>
	2/9	<u>Homework #1 Due</u> Chapter 2: Frequency Distributions (pp. 32-46)
Week 2:	2/13	<b>Quiz #1 over Chapter 2</b> Chapter 3: Central Tendency (pp. 53-75)
	2/15	Finish Chapter 3 <u>Homework Assignment #2: Chapter 3 (3, 9, 16, 20, 24)</u>
	2/17	<u>Homework #2 Due</u> Chapter 4: Variability (pp. 82-96) <u>Homework #3: Chapter 4 (1, 7, 10, 14, 19)</u>
Week 3:	2/19	<b>President's Day (NO CLASSES)</b>
	2/21	<u>Homework #3 Due</u> Finish Chapter 4 Review for Exam #1
	2/23	<b>Exam #1 over Chapters 1, 2, 3, 4</b>
Week 4:	2/26	Chapter 5: z-Scores: Location of Scores and Standardized Distributions (pp. 110-123)
	2/28	Finish Chapter 5 <u>Homework #4: Chapter 5 (2, 3, 8, 15, 20)</u>
	3/2	<b>Quiz #2 over Chapter 5</b> <u>Homework #4 Due</u> Chapter 6: Probability (pp. 130-148)
Week 5:	3/5	Finish Chapter 6 <u>Homework #5: Chapter 6 (5, 8, 11, 14, 20)</u>
	3/7	<u>Homework #5 Due</u> Chapter 7: Probability and Samples: The Distribution of Sample Means (pp. 154-164)
	3/9	Finish Chapter 7 (pp. 164-171) <u>Homework #6: Chapter 7 (2, 7, 11, 12, 18)</u>

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- Week 6: 3/12 Homework #6 Due  
Review for Exam #2
- 3/14 **Exam #2 over Chapters 5, 6, 7**
- 3/16 Chapter 8: Introduction to Hypothesis Testing (pp. 178-190)
- Week 7: 3/19 Continue Chapter 8 (pp. 191-210)
- 3/21 Finish Chapter 8  
Homework #7: Chapter 8 (2, 7, 10, 17, 20)
- 3/23 **Quiz #3 over Chapter 8**  
Homework #7 Due  
Chapter 9: Introduction to the  $t$  Statistic (pp. 220-228)
- Week 8: 3/26 Finish Chapter 9 (pp. 229-239)  
Homework #8: Chapter 9 (2, 7, 13, 16, 20)
- 3/28 Homework #8 Due  
Chapter 10: The  $t$  Test for Two Independent Samples (pp. 247-265)
- 3/30 Continue Chapter 10
- Week 9: 4/2-4/6 **Spring Break (No Classes)**
- Week 10: 4/9 Finish Chapter 10  
Homework #9: Chapter 10 (1,5, 8, 11, 14)
- 4/11 Homework #9 Due  
Chapter 11: The  $t$  Test for Two Related Samples (pp. 275-291)
- 4/13 **Quiz #4 over Chapter 11**  
Finish Chapter 11  
Homework #10: Chapter 11 (1, 4, 5, 10, 11, 18)
- Week 11: 4/16 Homework #10 Due  
Review for Exam #3
- 4/18 **Exam #3 over Chapters 8, 9, 10, 11**
- 4/20 Chapter 13: Introduction to Analysis of Variance (pp. 327-342)
- Week 12: 4/23 **Quiz #5 over Chapter 13**  
Continue Chapter 13 (pp. 342-360)
- 4/25 Finish Chapter 13  
Homework #11: Chapter 13 (3, 7, 10, 14, 18)
- 4/27 Homework #11 Due  
Chapter 14: Repeated-Measures and Two-Factor Analysis of Variance (pp. 370-382)  
Homework #12: Chapter 14 (3, 6, 11, 14, 19)

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- Week 13: 4/30 Homework #12 Due  
Finish Chapter 14 (pp. 382-399)
- 5/2 Finish Chapter 14  
Review for Exam #4
- 5/4 Western Psychological Association Conference (No Classes)
- Week 14: 5/7 **Exam #4 over Chapters 13 & 14**
- 5/9 Chapter 15: Correlation and Regression (pp. 412-445)  
Homework #13: Chapter 15 (4, 5, 9, 12, 25)
- 5/11 Homework #13 Due  
Chapter 16: The Chi-Square Statistic: Tests for Goodness of Fit and Independence (pp. 455-477)
- Week 15: 5/14 Finish Chapter 16  
In class work on Chi-square statistic  
Review for Exam #5
- 5/16-5/18 **No Classes**

Finals Week: **Exam #5 over Chapters 15 & 16 TBA**

Homework	Dates		Quizzes	Dates		Exams	Dates
#1	2/9		#1	2/13		Chapters 1, 2, 3, 4	2/23
#2	2/17		#2	3/2		Chapters 5, 6, 7	3/14
#3	2/21		#3	3/23		Chapters 8, 9, 10, 11	4/18
#4	3/2		#4	4/13		Chapters 13, 14	5/9
#5	3/7		#5	4/23		Chapters 15, 16	TBA
#6	3/12						
#7	3/23						
#8	3/28						
#9	4/11						
#10	4/16						
#11	4/27						
#12	4/30						
#13	5/14						