

CHAMINADE UNIVERSITY OF HONOLULU  
INSTRUCTOR: Bryan Man  
OFFICE HOURS: WF: 9-10; TH:1:30-2:30; or by appointment  
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FALL, 2001  
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### ~~CJ/PSY/SO 315~~ BEHAVIORAL SCIENCES STATISTICS

**DESCRIPTION:** This course is part of a two-part sequence in social science research required of all majors in the Behavioral Sciences and in Psychology. The sequence intends to introduce the student to behavioral & social sciences research methods, i.e., research design and statistical analysis of data. In part one (315), students will be introduced to the basics of data measurement and descriptive and inferential statistical techniques used to analyze research data. Emphasis will be on statistical concepts and the use of the SPSS program for analyzing & interpreting quantitative data.

**OBJECTIVES:** Students are expected to learn to:

1. understand the nature of quantitative data;
2. present data in graph and table form;
3. use descriptive statistics to summarize & analyze raw data;
4. investigate relationships among variables through the use of correlational analysis, percentage table analysis, and Chi Square;
5. test hypotheses through the use of Z, t- & F tests and tests of significance;
6. learn to use the SPSS computer software for data analysis;
7. communicate research results in a clear and appropriate format.

**WRITING ASSIGNMENTS:** Students will have a number of assignments (1-2 pages) during the term. The assignments will focus SPSS statistical analysis and on **interpreting** and communicating the results, appropriate to the statistic used. The analyses will be done through the use of computers and the SPSS software. The style of writing is expected to become increasingly formal, to reflect familiarity with, and understanding of, behavioral sciences research and reporting.

Assignments are due on dates as indicated and may be redone, within one week of return, for full credit. Assignments not in on the due date (class time) will be assessed a 10% deduction from the final grade of the assignment and will only be accepted within one week after the due date. Late assignments cannot be redone for full credit. All assignments must include the SPSS printout and the interpretation of the results must be typed and follow the writing standards of Chaminade University or that dictated by the formal writing style of the text and research journals.

GRADING:	1. 10 Assignments	(10 pts each = 100 pts)	25
	(Using SPSS program in the computer lab)		
	2. 5 Quizzes	(40 pts each = 200 pts)	50
	<u>3. 2 Tests</u>	<u>(50 pts each = 100 pts)</u>	<u>25</u>
	TOTAL:	400 pts	100

A= 90% & above (360 pts. +); B = 80-89% (320-359 pts.); C = 70-79% (280-319);  
D = 60-69% (240-279); F = X < 60% (< 240)

### TEXT & EQUIPMENT: **REQUIRED**

Gravetter and Wallnau. Essentials of Statistics for the Behavioral Sciences. Fourth Edition. St. Paul, MN: West Publishing Co., 2002.

One "good" hand calculator that can give you means, standard deviations (minimum).

OUTLINE: (Tentative)

Week 1 8/28-30

Introduction to social science research, variable/data concepts & statistics. Intro to survey questionnaire.  
Ch. 1

Week 2 9/4-6

Levels of measurement, SPSS program & collection of survey data. Frequency distributions & graphs.  
Ch. 2

Week 3 9/11-13

9/14 1st Quiz Ch. 1, 2 Lecture on summarizing data - Ch. 3 (Central Tendency)

Week 4 9/18-20

Variability Ch. 4

9/18 Due: Assignments 1 & 2-Creating a data file, and creating one frequency distribution table and one graph of that table's distribution.

Week 5 9/25-27

9/25 2nd Quiz Ch. 3, 4, lecture on z scores and probability Ch. 5 & 6

9/27 Due: Assignments 3 & 4-Central Tendency & Variability-variable(s) to be assigned from survey data.

Week 6 10/2-4

Ch. 5 & 6 continued, Ch. 7 The distribution of sample means

10/8 Discoverers' Day-No Classes

Week 7 10/9-11 Ch. 7 The distribution of sample means and the logic of hypothesis testing.

10/11 3rd Quiz Ch. 5, 6, 7

Week 8 10/16-18

**10/16--First Exam:** Ch. 1-7, concepts & calculations.

Hypothesis testing & the t statistic Ch. 8 & 9

Week 9 10/23-25

Hypothesis testing, two populations. Ch. 10.

10/25 Due: Assignment #5 Single Population West.

Week 10 ~~10/30-11/1~~

Hypothesis testing, two populations (cont'd) & dependent samples. Ch. 10 & 11

11/1 **4<sup>th</sup>** Quiz Ch. 9, 10

Hypothesis testing, dependent samples Ch. 11

Week 11 11/6-8

Intro to ANOVA Ch. 13

11/8 Due: Assignment # 6 & 7 Independent Samples t-test and Related Samples t-test

11/12 Veterans Day-No classes.

Week 12 11/13-15

Repeated Measures & Two-factor ANOVA Ch. 14

Week 13 11/20

ANOVAs continued

11/20 Due: Assignment # 8 One-way ANOVA test of a hypothesis

Assignment #9 Two-factor ANOVA test of a hypothesis

11/22-23            **Thanksgiving-No Classes**

Week 14 11/27-29

Correlation and Regression Ch. 15

11/30 5<sup>th</sup> Quiz Ch. 11,13 & 14

Week 15 12/4-6

Chi-Square Ch. 16 and review

12/4 Due: Assignment #10 64r" "Y" **"b"** "a"

12/6 Extra credit assignment: Chi-square analysis of your choosing, but you'd better be right!

DECEMBER 11<sup>th</sup>, TUESDAY    **FINAL EXAM**

CH. 9-11,13-16

TIME: 10:30-12:30 P.M.

Labs: Day:                      Time:

Day:                      Time: