

Bms

CHAMINADE UNIVERSITY OF HONOLULU
Instructor: Bryan Man, Ph.D.
Office Hours: M: 2-3; Th.: 3:30-4:30 or by appointment
E-mail: bman@chaminade.edu

Winter Evening 2001
Office: Eiben Hall 204
Phone: 735-4850

CJ/PSY/SO 315 ⁶⁰ 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 sciences research methods, i.e., research design and statistical analysis of data. In part one (315), students will be introduced to the basics of scientific research, data measurement and descriptive and inferential statistical techniques that are used to analyze quantitative data. Emphasis will be on statistical concepts and the use of the SPSS program for analyzing data.

Objectives: Students are expected to learn to:

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

Assignments: Students will have a number of assignments during the term. The assignments will focus on creating and conducting a survey, with a number of variables of interest to the class. The class will be divided into subgroups to work on item sections, will come together to create a single questionnaire, and will conduct the survey. Lastly, the data will be coded and organized for statistical analysis as additional assignments.

Grading:	Assignments	100 pts	A = 270 - 300
	4 Quizzes (short essays)	100 pts	B = 240 - 269
	2 Tests	100 pts	C = 210 - 239
	(Midterm & Final--computational)		D = 180 - 209
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	Total:	300 pts	

Missed quizzes are to be excused before the appointed time and are to be made up prior to the scheduled date & time or prior to the next class period, at no penalty. Expect a 10% penalty otherwise.

Group assignments are not expected to be late, since most members of the group should be present to present the results. Individual assignments will not be accepted late. These can be handed in by a friend, fellow classmate, or e-mailed prior to the due class period.

Text & Equipment Required:

Gravetter and Wallnau. Essentials of Statistics for the Behavioral Sciences. Third Edition. St. Paul, MN: West Publishing Co., 1999.

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

Outline: (Tentative)

1/9/01 Introduction. Science & the scientific method; measurement & variables. Ch. 1
Tables and graphs. Ch. 2

1/16/01 Survey project discussion & choosing variables.

Assignment 1: Groups assigned to create measures, through a process of identifying and operationally defining the variables.
Central Tendency and Variability. Ch. 3 & 4

1/23/01 **Quiz 1: Chapters 1 through 4, definitions and short essays.**

Assignment 1. Groups will present their variable measures to discuss, refine, and organize into a single questionnaire, for distribution to subjects.
Z-Scores and Probability. Ch. 5 & 6

1/30/01 **Conduct field survey.** Locate subjects and distribute questionnaires and collect the raw data from respondents.

2/6/01 **Quiz 2. Ch. 5 & 6, definitions and short essays.**

Assignment 2: Data management of returned questionnaires: coding and creation of the data matrix (file). In-class at Chaminade's main campus (H1?).
Probability and sample means. Ch. 7
Intro to hypothesis testing. Ch. 8

2/13/01 **Test 1: Ch. 1 - 8, computation of word problems, similar to end of chapter questions.**

Intro to the t statistic. Ch. 9
Hypothesis testing: Independent samples t-test. Ch. 10
Assignment 3: Use survey data to test a hypothesis involving two independent samples.

2/20/01 **Due: Assignment 3.** Check in class.

Related samples t-test. Ch. 11
One-way ANOVA. Ch. 13

2/27/01 **Quiz 3: Ch. 7 - 11, 13, definitions and short essays.**

Correlation and regression. Ch. 15
Assignment 4: Use survey data to test a hypothesis involving more than two groups.
Nonparametric statistics: Chi-Square. Ch. 16

3/6/01 **Quiz 4. Ch. 15-16, definitions and short essays.**

Due: Assignment 4, check in class.
Assignment 5: Use survey data to do a test for independence.
Finish Chi-Square chapter.
Crosstabulation (table) analysis.
Summary remarks about statistics.
Review for final test.

3/13/01 **Due: Assignment 5, check in class.**

Final Test. Ch. 9-11, 13, 15-16, & crosstabulation lecture. Computational similar to end of chapter questions and crosstabs problems looked at in class.