

Duplichain University
Division of Criminal Justice
Ph.D. in Criminal Justice Administration Program
DCRJ 802: Statistics I
Fall 2011

Instructor: Naoshi Sambonsugi, Ph.D.

Email:

Cell Phone: (Noon – 9p.m. Central Time)

COURSE DESCRIPTION

This course is an introduction to applied statistical techniques in the field of criminal justice. It is taught as a basic course in statistics and presumes minimal mathematical or statistical background. Course emphasis is on the analysis and interpretation of data, rather than on how those data are collected. At the end of this course, students will be able to apply the array of quantitative models to analyze data obtained from criminal justice practice settings. Students will learn to conduct these analyses using SPSS, interpret their findings, and communicate their results clearly and effectively to both scholarly and criminal justice practice audiences.

STUDENT LEARNING OUTCOMES

By the end of this course, the student should be able to identify and apply:

1. choose and apply appropriate regression techniques to address research questions and hypotheses
2. use SPSS for various statistical analysis such as regression analysis
3. interpret findings
4. communicate results clearly and effectively
5. understand statistical assumptions and how to detect and address violations
6. recognize strengths and weaknesses in analyses and formulate constructive critiques.

ANGEL & e-MAIL

You must have access to the class Angel site. All announcements and class related documents will be posted here. Some class announcements will be distributed via e-mail.

REQUIRED TEXTS & SOFTWARE

Sirkin, R. Mark, (SRM) *Statistics for the Social Sciences*, Sage Publications, 3rd edition. (Purple cover.)

Cronk, Brian. C. (CBC) *How to use SPSS: A step by step guide to analysis and interpretation*. Los Angeles CA: Pyczak Publishing, 2nd or 3rd edition. (Purple or green cover.)

SPSS (statistical software).

RECOMMENDED TEXT

Field, Andy, *Discovering Statistics Using SPSS*, Sage, 2nd or 3rd edition.

COURSE POLICIES:

1. Regular and active class participation is strictly part of course requirements. Reading required materials in advanced is expected and will help in class participation as well as help to facilitate learning.
2. No Make-Up Test and No Late Assignments are accepted without advance permission from the instructor and a valid excuse.
3. Academic honesty is expected and strictly observed.

PERFORMANCE CRITERIA

Students are required to complete 3 assignments, one exam, and one paper. The assignments consist of critically reviewing quantitative studies and exercises of regression models. The paper requires students both to perform data analyses using SPSS and to interpret the results. They should pose a question for research, propose research hypotheses, and present analysis findings. The paper will apply quantitative methods.

All assignments account as 30%, one exam account as 30% and paper accounts as 40% of the final grade.

Papers will be graded according to the following scale:

- A. Excellent, exceeds expectations, superior performance
- B. Good, meets all normal expectations; consistent grasp of content and competency in meeting course objectives
- C. Fair, meets some expectations but misses others; acceptable but barely adequate; uneven grasp of course content

Criteria:

1. Final paper: 40 pts
2. Assignments: 30 pts (10pts × 3)
3. Midterm exam: 30 pts

Grading:

- A: 90-100 points
B: 80-89 points
C: 70-79 points
D: 60-69 points
F: less than 60 points

COURSE OUTLINE

Week	Class Topic	Readings
WK1	Introduction	
WK2	How we reason & Levels of measurement and forms of data	SRM: Ch 1 & Ch 2
WK3	Defining Variables & Measuring central tendency	SRM: Ch 3 & Ch 4
WK4	Measuring dispersion & Constructing and interpreting contingency tables Assignment #1	SRM: Ch 5 & Ch 6
WK5	Statistical inference and tests of significance & Probability distributions and one sample z and t tests	SRM: Ch 7 & 8
WK6	Two-sample t tests	SRM: Ch 9
WK7	Mid-term exam Posted by 9 p.m. and Due at 9 p.m. on 14 th , Friday! (Central Time)	
WK8	Analysis of Variance (ANOVA)	SRM: Ch10
WK9	Measuring association in contingency tables & The chi-square test Assignment #2	SRM: Ch 11 & 12
WK10	Correlation	SRM: Ch 13
WK11	Regression analysis I (Concepts & Simple Linear)	SRM: Ch 14
WK12	Regression analysis II (Multiple Linear) Assignment #3	SRM: Ch 14
WK13	Regression Analysis III (Collinearity & Heteroscedasticity)	
WK14	Final Paper Due	

* Dates and content are subject to change throughout the semester. Changes will always be announced on the course website in advance.