ST. FRANCIS XAVIER UNIVERSITY
DEPARTMENT OF SOCIOLOGY

Sociology/Nursing 300 -- Research Methods 2013-14

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Office Hours: Fall term: Mondays, Tuesdays, Wednesdays: 1:00-3:00
Winter term: Mondays, Wednesdays: 1:00-3:00; Friday, 10:00-12:00

COURSE OBJECTIVES

Sociology/Nursing 300 teaches students to use quantitative research methods and statistical procedures to test social theory. You will learn how theoretical statements can be constructed as testable hypotheses and you will complete statistics labs to teach you how to use statistical procedures to test hypotheses. You will learn how to design and execute a research project.

PROCEDURES

Students will collaborate on the design a survey research project and questionnaire design, and collect data to test their research interests. Once collected, individuals will conduct data analyses and write a research paper. Lectures and labs provide an overview of the conceptual and practical tools used by quantitative researchers.

Both group and individual reports will be submitted during the course. Students who feel that they cannot work well with their groups should notify the instructor and they will be permitted to continue individually. Groups are required to maintain an activity log.

Students will complete ten SPSS labs (five fall term; five winter term) during the course. The lab assignments prepare students to use various statistical procedures relevant for the completion of the research project. You are required to attend all lectures, labs and group meetings, and meetings with the instructor related to planning the projects.

TEXTBOOK
Winston Jackson and Norine Verberg (2007). *Methods: Doing Social Research*, 4th ed. Prentice-Hall Canada, Inc. [Available at the Campus Store & on reserve at the library]

Laptop/tablet and cellphone policy
I will allow laptops or tablet in class, however, should I find that they are being misused, I reserve the right to ban them from class. Cell phones are to be left in your backpack or coat.

COURSE REQUIREMENTS (due dates are noted on the Course Plan)

1. **Assignment 1: Constructing causal hypotheses (Individual Report)**
   Choose a relationship between two variables that you think would hold true and propose three alternative explanations for the relationship. Outline a study that would allow you to reject the various explanations? Draw relationship diagrams.

2. **Assignment 2: Literature search (A: Group report) and review (B: Individual report)**
   A literature review will be coordinated for your group. You will be responsible for finding suitable articles for your group project and taking steps to organize a 'review' of the literature. Instructions will be provided in a separate handout.

3. **Assignment 3: Research Proposal and Ethics Application (Group Report)**
   One of two models of research may be proposed by your group: A) Testing a theory: utilizing the replacement of terms and/or axiomatic derivations derive a testable hypothesis which is not obvious (in common sense terms) but which, in your view, is worthy of empirical examination. B) Choose a dependent variable and propose a number of independent variables which may be influencing variation in the dependent variable. Select one of the independent variables and propose alternative explanations (either or both of intervening or sources of spuriousness variables) for the link between the independent and dependent variables. Specify the assumptions underpinning each of the proposed intervening variable explanations. Instructions will be provided in a separate handout. Students will present their proposals to the class. In early January, groups are responsible for preparing a Student Research Ethics Proposal, in compliance with Tri-Council Policy. This will be introduced and explained in class.

4. **SPSS labs (Individual Reports) Due: Fridays at 1:00 in my office or under my office door.** Labs submitted late will be marked but graded as 0/10.
   Reliance on others to complete your labs may impair your ability to complete the lab portion of the exam and hinder your ability to complete the analyses of your project data. I am available in office hours or by appointment to answer your lab questions.

5. **Major Research Paper (Individual Report)**.
   A handout will provide detailed instructions for the preparation and submission of this paper. On the due date, submit a copy of your individual research report to the instructor and keep a copy for yourself. Project presentations begin March 26.

6. **Examinations**
   There are four examinations employing multiple choice and short-answer questions. The April includes essay questions. Written lab questions on included on the December, February and April examinations. The dates and materials covered on each exam are noted in the course plans below.

COURSE PLAN: FALL TERM 2013

	Mondays	Wednesdays – Chapters 8 & 9
		September 4 Introduction, Organization
Week 1	September 9 Major approaches - Chapter 1	September 11 Descriptive stats, proportions, percentages, ratios, rates
Week 2	September 16 Conceptual & operational variables; Theoretical models (Ch. 2, pp. 349-363)	September 18 Levels of measurement; Central tendency and dispersion **Assignment 1 due**
Week 3	September 23 Measuring variables (Ch 13) Discuss project topic (Ch 12)	September 25 Refworks workshop at the library
Week 4	September 30 Discuss research literacy Experimental Design (Ch. 3)	October 2 Discuss research literacy Normal Curve, Z scores
Week 5	October 7 Survey designs (Ch. 4) Introduction to Lab 1(due Oct. 18)	October 9 Take up your questions on Lab 1 Contingency tables **Assignment 2, Part A due**
Week 6	October 14 **Thanksgiving –no class**	October 16 Tests of Significance
Week 7	October 21 Introduction to Lab 2 (due Oct. 25) Non-reactive/comparative (Ch. 5)	October 23 Take up your questions on Lab 2 **Midterm (Chs 1-5, 8, 9, 12, 13)**
Week 8	October 28 Introduction to Lab 3 (due Nov.1)	October 30 Take up your questions on Lab 3 Means analysis **Assignment 2, Part B due**
Week 9	November 4 Ethics (Ch. 10) Introduction to Lab 4 (due Nov. 15)	November 6 Take up your questions on Lab 4 Correlation and regression
Week 10	November 11 **Remembrance Day - no class or lab**	November 13 Bias (Ch. 9)
Week 11	November 18 Introduction to Lab 5 (due Nov 22) **Assignment 3 due; present Ass'n 3**	November 20 Take up your questions on Lab 5 **present Ass'n 3**
Week 12	November 25 Receive lab study questions for exam	November 27 Take-up lab study questions

COURSE PLAN: WINTER TERM 2014

Week 1	Measurement (Ch 13) Review of Indexes and Scales for project survey development
Week 2-3	Questionnaire construction (Ch. 14) Introduction to lab 6 (Lab on Jan 7; due on Jan 10) Introduction to lab 7 (Lab on Jan 14; due on Jan 17) Draft of questionnaire due January 15
Week 4	Causal inference from non-experimental data (Ch 17) Tests for spuriousness/Intervening variables (Ch 17) Ethics application due January 20 Introduction to lab 8 (Lab on Jan 21; due on Jan 24)
Week 5	Sampling/Sample Size (Ch 15) Creating Summary Tables (Ch 18) Introduction to lab 9 (Lab on Jan 28; due on Jan 31)
Week 6	Creating SPSS system files (Ch 16) Introduction to lab 10 (Lab on Feb.4; due on Feb. 14)
Week 7	Error Checking (Ch 16) Midterm exam – February 19 (labs 6-10 & Chapters12-17)
Week 8	Project work: Regression and Discriminant Analysis (Ch 17)
Week 9-10	Project work: Report Writing (Ch 18)
Week 11-13	Major paper due March 24 (late marks begin after class) Presentation of Projects begin March 26

GRADE COMPONENTS

DECEMBER GRADE

October exam	20
Assignment #1	10
Assignment #2	10+10
Assignment #3	10
December exam	40
FIRST TERM	100

FINAL GRADE

First Term Work	25
February exam	10
Lab Assignments	15
Major Paper	30
Presentation, Attendance	10
Final Exam	20
FINAL GRADE	100

I reserve the right to make minor alterations to the schedule to accommodate students' progression through the course and project work.