UNIVERSITY OF TORONTO
Department of Sociology
Applications of Quantitative Methods

Sociology 300H Fall, 2012
Lectures: Monday12-2
Tutorials: Wednesday 4-6
TA: TBA

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**PREREQUISITES**:

The prerequisites for this course are SOC200H and SOC202H or their equivalents. Students without these prerequisites can be removed from the course at any time.

**TEXT BOOK:**

Wagner, William E. 2013. Using IBM SPSS statistics for research methods and social science statistics. 4th Edition

I hope that you still have access to last year's soc202H course textbook:
Ritchey, Ferris J. The Statistical Imagination: Elementary Statistics for the Social Sciences. 2nd Edition

You will need a CALCULATOR in class and for term tests. You will need a USB flash drive to store your data for analysis and your work on each exercise for printing.

**EXERCISES:** This course is structured around a series of exercises that are designed to give you practice making the link between sociological theories, hypotheses, and the analysis of quantitative data. Exercises are due at the beginning of class (or tutorial) on the day they are due. Exercises turned in at any time after this are penalized five points (out of 100) per weekday.

Question: Exercises take a lot of time. They are worth only 12 ½ points each. So why spend a lot of time on them?
Answer: It is very unlikely that you will pass term tests if you don't. Term tests are open notebook (YOUR notebook). You may use your own class notes, notes on the readings, and YOUR exercises. Term tests bear a remarkable resemblance to the exercises they cover. *The advantage of spending time on your exercises should be obvious.*

**TUTORIALS:** There are two tutorials for each exercise. You cannot consider these optional. Plan to review assigned sections in your text before each tutorial. Get started and have most of the data analysis completed before the second tutorial. Bring your questions, problems, and output for discussion. This is a good chance to get help on the "little" mistakes that can keep you from finishing your exercise on time.

**COMPUTING:** You will use SPSS (Statistical Package for the Social Sciences) to analyze the data for each exercise. The department maintains several computers with SPSS and our data in room 225c 725 Spadina for our specialists and other students in classes requiring this support. The room can be accessed 9-5 Monday to Friday. You may borrow the key from Jeremy Nichols (at the front desk on the second floor).

You will probably want SPSS on your personal computer. Copies of the student version of the software (about $60) can be obtained from the Scotia Bank Information Commons in Robarts Library. The software office is on the north side near the Help Desk and Printing Kiosk. A map of the Information Commons area can be viewed at: http://www.utoronto.ca/ic/software/moving You must go to the Software Office in person to get the student version. Please note that your textbook costs have been minimized so that the total expense of this course can remain reasonable.

**OFFICE HOURS:** I am in my office during scheduled office hours. If you would like to come by at any other time, please call or email me (sorenson@chass.utoronto.ca) just to be sure I am available. Please don't hesitate in this.

**MARKING:** Four exercises (4 * 12.5% = 50%) + two term tests (2 * 25% = 50%).

If you miss writing a term test on the scheduled date (for medical reasons or on compassionate grounds), you must provide signed written substantiation on the U of T form before a make-up test can be scheduled for you. This cannot be a photocopy. I will file the photocopy that you will bring, but I must SEE the original.

**Plagiarism:** Be aware that the university administration and faculty, including me, take plagiarism very seriously. Plagiarism means presenting work done by another person or source as your own, or using the work of others without acknowledgment. Heavy reliance on one or two resources constitutes plagiarism, as does copying paragraphs or sentences from multiple sources, purchasing an essay, or cutting and pasting from web-based documents without acknowledgments. It is also an academic offense to submit your own paper, which you have previously submitted for credit in another class. Any assignment or essay that is plagiarized will be assigned a grade of zero with no opportunity to resubmit or to carry out a make-up assignment. If you are in doubt as to whether you are engaging in plagiarism, the following covers some (but not all) types:

http://www.hamilton.edu/academics/resource/wc/AvoidingPlagiarism.html
http://www.indiana.edu/~wts/wts/plagiarism.html

The University of Toronto webpage on writing also contains a great deal of useful information on academic writing. One topic is plagarism. Access the information by going to the web address www.utoronto.ca/writing Then in the search box, type the term plagiarism, and you will get a listing of files. Open the one called "How not to plagiarize." Students agree that by taking this course all required papers may be subject to submission for textual similarity review to turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

[Prof. Ito Peng, Department of Sociology, University of Toronto]

The office of academic integrity maintains this website that that also addresses our expectations for student academic intergrity here at the Univerity of Toronto: www.artsci.utoronto.ca/osai/students

## COURSE OUTLINE

---------- **Week 1** ----------

**Sept. 10** **Unit 1 / Lecture 1: The Logic of Multivariate Analysis**
- Theories and Data: Patterns of Association
- Constructing a three-way table

Preparation for Sept. 12 Find: FE 36 – This is in the 'garden level' aka basement.
Come in at the 725 Spadina entrance. Go up the stairs to first floor, then down elevator to basement.
Bring: a USB flash drive to store your work or download data to your own computer.
Review: Wagner, Chapter 1: First steps using SPSS
Chapter 2: Transforming Variables
Chapter 12, pages 153-155.

**Sept. 12** **Unit 1 / Tutorial 1:** Using SPSS: An Introduction
- Transforming the dependent variable

---------- --------- **Week 2** ------ ----------

Preparation for Sept 17: Review: Wagner, Chapter 6 pages 80-84, Chapter 9, pages 124-130, also relevant in materials in Ritchey

**Sept. 17** **Unit 1 / Lecture 2: The Logic of Multivariate Analysis (continued)**
- Observed patterns of association
- Comparing nested models

**Sept. 19** **Unit 1 / Tutorial 2**

In this tutorial we will review the material presented on Sept.17 with reference to SPSS

---------- **Week 3** ----------

**Sept. 24** **Unit 1 / Lecture 3: The Logic of Multivariate Analysis (continued)**
- Interpretation and presentation of your results

Preparation for Sept. 26 Review: Wagner, Chapter 7, Chapter 9 pages 121-123, also relevant materials in Ritchey

**Sept. 26** **EXERCISE 1 DUE Unit 2, tutorial 1**

---------- **Week 4** ----------

**Oct. 1** **Unit 2 / Lecture 1: Correlations and Bivariate Regression**
- Scatterplots and regression lines
- Estimating a linear regression equation
- R-square and correlations
- Significance tests for regression parameters

**Oct. 3** **Unit 2 / Tutorial 2**

---------- **Week 5** ----------

**Oct. 8** **Thanksgiving. University closed.**

**Oct. 10** **Unit 2 / Lecture 2: Bivariate Regression (continued)**
- Scale Construction

---------- **Week 6** ----------

**Oct. 15** **UNIT 2 / Lecture 3: Bivariate Regression (continued)**
- Dummy variable coding
- Interpreting the effect of a dummy variable in the regression equation

**Oct. 17** **Unit 2 / Tutorial 3**

---------- **Week 7** ----------

Preparation for Oct 22 Review: Wagner, Chapter 7, pages 96-102.

**Oct. 22** **EXERCISE 2 DUE**

**Unit 3 / Lecture 1: Multivariate Regression – Main Effects Models**
- Estimating a multivariate model with K Independent Variables

**Oct 24** **Unit 3 / Tutorial 1 + Review, Term Test 1**

---------- **Week 8** ----------

**Oct. 29** **TERM TEST 1 covers unit 1 and 2 (25 pts.)**

**Oct 31** **Unit 3 / Tutorial 2**

---------- **Week 9** ----------

**Nov. 5** **Unit 3 / Lecture 3: Main Effects Models (continued)**
- Selecting and interpreting a preferred model

**Nov. 7** **Unit 3 / Tutorial 3**

---------- **Week 10** ----------

**Nov. 12** **FALL BREAK -- NO UNDERGRADUATE CLASSES**

**Nov. 14** **** Exercise 3 due (12.5 points)****

**Unit 4 / Lecture 1: Specifying Conditions: Interaction Terms**
- Estimating regression models with interaction terms

---------- **Week 11** ----------

**Nov. 19** **Unit 4 / Lecture 2: Models with Interaction Terms (cont.)**
- Selecting and interpreting a preferred model

Exercise 3 returned

**Nov. 21** **Unit 4 / tutorial**

---------- **Week 12** ----------

**Nov. 26** **Unit 4 / Lecture 3 + tutorial for Term Test 2**

**Nov. 28** **** Exercise 4 due (12.5 points)****

We will make every effort to have this back to you Friday, but you might want to have a copy to study on the weekend, just in case

---------- **Week 13** ----------

**Dec. 3** Review for Term Test #2
All Exercise 4s returned.

**Dec. 5** **TERM TEST # 2 covers Unit 3 and Unit 4 (25 points)**