



Sociology 6040

Advanced Quantitative Methods

Fall 2015
Wednesdays 9:00-11:30, rm SN4022

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office hrs: MW 13:00-15:00; Th 9:30-11:30 rm. AA4053
book meeting: <http://liamswiss.youcanbook.me/>

1 Course Overview & Objectives

This course provides an introduction to advanced quantitative social research methods. The course is practical in orientation and aims to achieve three learning objectives by the end of the term: (1) Students are comfortable reading and able to comprehend published quantitative research in mainstream sociological journals; (2) Students have greater awareness of quantitative methods of social research and are comfortable using such methods; and (3) Students have greater awareness of quantitative analysis software and are comfortable using such software to conduct independent research. Overall, this course will attempt to prepare you for your future engagement with research methods whether in your own graduate research or in other professional experience. The course is by no means exhaustive will introduce but some of the many advanced techniques used by sociologists.

2 Course Readings & Statistical Software

Texts

- Agresti, Alan, and Barbara Finlay. 2009. *Statistical methods for the social sciences*. Upper Saddle River, NJ: Pearson. 4th Edition. (Hereafter A&F)
- Healy, Kieran, and James Moody. 2014. "Data Visualization in Sociology." *Annual Review of Sociology* 40(1):105-28.
- Pevalin, David, and Karen Robson. 2009. *The Stata survival manual*. McGraw-Hill International. (Hereafter P&R)

Software

Course instruction will be provided in Stata version 14. Arrangements for a reduced rate purchase of Stata will be discussed in the first class. Instruction in and support

for other programs will not be offered by the instructor. Purchasing a license for Stata for use at home is advisable, as access to the computer labs on campus can sometimes be difficult on evenings and weekends.

3 Course Requirements

Requirement	Value	Due Date
1. Take-Home Exercises (3)	10% ea.	Sept. 23; Oct. 21; Nov. 18
2. Article Deconstruction	15%	Sept. 30
3. Research Paper Proposal	5%	Oct. 7
4. First Draft of Research Paper	10%	Nov. 4
5. Final Draft of Research Paper	30%	Dec. 2
6. Paper Presentation	10%	Dec. 2

1. Take-Home Exercises (30%): Respond to the questions as fully as possible, detailing the steps taken to arrive at the answer and providing relevant backing evidence to support your work. This work must be completed individually. Due dates: Exercise #1 - September 23rd; Exercise #2 - October 21st; Exercise #3 - November 18th.

2. Article Deconstruction (15%): *Due September 30th.* Find a quantitative sociology article on a subject of interest to you from one of the journals in the list provided by Dr. Swiss. Read the article and prepare a three page summary which deconstructs and summarizes the article into the following parts: (1) Research problem; (2) Theoretical Framework; (3) Data; (4) Hypotheses; (5) Results and Main Findings.

3. Research Paper Proposal (5%): *Due October 7th.* Prepare a two-page overview of your proposed research paper project for this class. Your proposal should outline the research question, context, and rationale for the research, as well as the anticipated method, data set, sample, and any other relevant issues.

4. First Draft of Research Paper (10%): *Due November 4th.* This 20-25 page paper will use quantitative methods to examine a sociological research question of your choosing. You are expected to identify your own research question, data, and to employ appropriate quantitative techniques (at minimum Multiple Regression or Logistic Regression) to answer your question. The paper should resemble a basic quantitative journal article with the following main headings: Introduction; Background or Literature Review; Methodology & Data; Results; Discussion; and Conclusion. Formatting will be discussed extensively in class.

5. Final Research Paper (30%): *Due December 2nd.* This will be the final draft of the research paper outlined above.

6. Paper Presentation (10%): *December 2nd.* You will prepare and deliver a maximum 10 minute conference-style presentation of your final paper. Please make use of slides/visual aids and stick to the specified time limit. Paper presentation tips will be discussed in class.

4 Course Calendar

Week	Topic & Readings
Week 1 – Sept 9	Data, Central Tendency, & Distributions A&F Chapters 1-4; P&R Chapters 1-5
Week 2 – Sept 16	Categorical Data, Cross-Tabulation & Data Visualization A&F Chapter 8 ; P&R Chapters 5-6; Healy & Moody; Assigned Article
Week 3 – Sept 23	Inference & Hypothesis Testing: T-Tests & Chi-Square A&F Chapters 5-7; P&R Chapter 6-7; Assigned Article
Week 4 – Sept 30	Guest Speaker: Dr. Riley Dunlap Correlation, Causation, & Linear Regression A&F Chapter 9; P&R Chapter 6-8; Assigned Article
Week 5 – Oct 7	Multiple Regression A&F Chapters 10-11, 14; P&R Chapter 8-9
Week 6 – Oct 14	Logistic Regression A&F Chapters 15; P&R Chapter 8-9
Week 7 – Oct 21	Dummy Variables A&F Chapters 12-13; P&R Chapter 8
Week 8 – Oct 28	Interaction Effects A&F Chapters 11
Week 9 – Nov 4	Data Transformations
Week 10 – Nov 11	***NO CLASS***
Week 11 – Nov 18	Marginal Effects
Week 12 – Nov 25	Communicating your Results A&F Chapter 16; P&R Chapter 9
Week 13 – Dec 2	Student Paper Presentations rm AA4049D

5 Timely Submission of Course Assignments

Assignments are due when specified on the course outline above. No extensions will be granted except in the case of a documented medical issue or emergency. Late assignments will be penalized by 5% of the overall assignment value per day late.

If you require a deferred final exam or assignment/paper etc. for medical reasons, please inform me in a timely manner. If a medical condition persists for longer than 5 days, please secure documentation from a medical professional.

6 Academic Misconduct

Academic misconduct is an act committed by a student to distort the marking of assignments, tests, examinations, and other forms of academic evaluation. Academic misconduct is neither accepted nor tolerated by the University. Anyone found guilty of academic misconduct is liable to severe academic sanctions. Some examples of academic offences include:

- engaging in any form of plagiarism or cheating;
- presenting falsified research data;
- handing in an assignment that was not authored by the student; or
- submitting the same assignment in more than one course, without the written consent of the professors concerned.

For more information, please refer to Section 4.12 of the MUN Calendar regarding “Academic Misconduct” of Graduate Students:

<http://www.mun.ca/regoff/calendar/sectionNo=GRAD-0029>