



**The University of Western Ontario**  
**SOCIOLOGY 3306A-002**

**Investigating the Social World: Quantitative Research**  
**Fall 2018**

W 9:30-12:30; HSB-9

**Instructor:** Anders Holm, teaching assistant Tina Luu Ly

Office Hours: Monday 9-11 am.  
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**Course Description:**

The goal of this course is to provide you with a sophisticated understanding of both evaluating and conducting quantitative social science research. The course tries to take a hands-on approach to learning. The course aims to give the student the ability to understand what statistical control means – looking at the relationship between two variables holding the level of a third variable constant. This is relevant when you e.g. want to compare wage rates between men and women. On average, wage rates of women are lower than that of men. This could be due to either wage discrimination or that women and men hold different qualifications and therefore have different type of jobs. Two different reasons for wage differentials with very different policy applications. To investigate the two explanations social scientist routinely “control” for different qualifications among men and women to see if the wage differentials holds even for men and women with identical qualifications. The course shows how this works in practice.

**Prerequisite(s):** [Sociology 2205A/B](#) and [2206A/B](#). Course restricted to 3<sup>rd</sup> and 4<sup>th</sup> year students in the Department of Sociology modules on Main Campus.

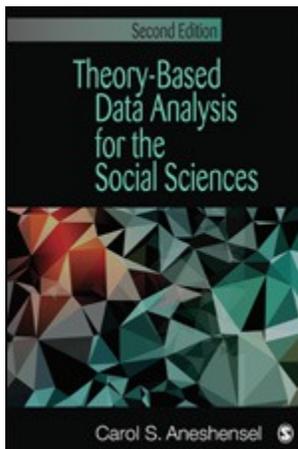
**Antirequisite(s):** The former Sociology 3300A/B or 3302A/B.

**Learning Outcomes:**

- Identify the pathway from theory via operationalization unto empirical quantitative analysis
- Repeat how different types of variables are measured on different scales
- Measure theoretical concepts empirically.

- Understand the simple mechanism of multiple regression models
- Interpret the effect of on variable in a regression model on the outcome variable
- Understand the relationships between variables in a path diagram
- Understand the concept of a confounder and a mediator variable in a multivariate variable setting
- Understand why the effect of one variable on the outcome variable change when controlling for a third variable
- Understand the difference between exogenous and endogenous variables
- Interpret the results of multivariate quantitative data analyses

### Required Text(s):



Aneshensel, C.S. (2013). Theory-based data analysis for the social sciences. Sage. Required supplementary readings: Occasionally additional readings will be assigned throughout in addition to textbook chapters. All of these readings will be posted on the course website. More information will be provided in class.

Statistical Computing: The course requires no statistical computing. The statistical computing for the course can be done using SPSS (Statistical Package for the Social Sciences). SPSS and STATA is available on computers located in the Social Science computing lab. During some of the lectures there will be focus on how students may perform the analysis examined in the lectures with SPSS. There is no requirement from the students to be able to perform analysis in SPSS. However, students are encouraged to try to conduct the analysis examined during lectures in order to gain greater understanding of what is going on in the statistical analysis. This will also improve the labour market relevance of what is learnt in the course.

### Method of Evaluation:

There will be one midterm test, student assignment and a final exam.

***Evaluation Breakdown:***

Midterm test 30%

Student assignment 30%

Final Examination 40%

**Midterm**

The midterm is a multiple choice (approximately 25-30 multiple choice questions) and open-ended questions (approximately 5-7 open ended questions). The midterm covers material taught until the reading week. The mid-term can be completely answered through material covered in the lectures

**Students assignment**

The assignment is a break down in five open ended questions that involves simple explanations of how variables are measured and simple explanations of how much a third variable mediates the relationship between a focal independent variable and the outcome variable.

**Final examination**

The final examination is very much like the midterm with multiple choice (approximately 30 multiple choice questions) and open-ended questions (approximately 7 open ended questions). The final examination is cumulative and thus covers all material covered in the entire course. Like the midterm, the final examination can be answered entirely through material covered in the lectures.

**How to Contact Me:**

[aholm@uwo.ca](mailto:aholm@uwo.ca) 519 661 2111 ext 85515

**How to get important information:**

All course material except textbooks will be made available through OWL or provided in class.

**Important Policies*****Policies for Assignment Deadlines:***

Policies for Assignment Deadlines: Late assignments will be penalized 5% per day (including weekends) except in the case of extreme and serious documented circumstances, discussed with me in advance and following the same procedures describe above related to missed exams. Please note that computer problems are not an excused circumstance. You are expected to follow good computer practices, including backing up your work.

### ***A Note on Plagiarism:***

Students must write their assignments in their own words. Whenever students take an idea from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major scholastic offence (the Scholastic Offence Policy can be viewed in the Western Academic Calendar).

### **Plagiarism Checking:**

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com ([www.turnitin.com](http://www.turnitin.com)).

### ***Policies on Examinations***

Calculators and Crip sheets are allowed both during the midterm and the final exam.

### ***Policy on Laptops and other Electronics/Phones in Class:***

Laptops are permitted in class but if it is observed that students are on social networking sites such as Facebook or Twitter, they will be told to close the lid and they will not be permitted to use it for the remainder of the class. Be sure that all cell phones are turned off at the beginning of class.

### ***Policy on Accommodation for Medical Illness***

Western's policy on Accommodation for Medical Illness can be found at [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf).

Students must see the Academic Counsellor and submit all required documentation in order to be approved for certain accommodation: [http://counselling.ssc.uwo.ca/procedures/medical\\_accommodation.html](http://counselling.ssc.uwo.ca/procedures/medical_accommodation.html)

### ***Accessibility Options:***

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519 661-2111 x 82147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar's website: [www.registrar.uwo.ca/examinations/accommodated\\_exams.html](http://www.registrar.uwo.ca/examinations/accommodated_exams.html)

### ***Scholastic Offences***

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following web site: [www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

## ***Mental Health***

Students who are in **emotional/mental distress** should refer to Mental Health@Western ([http://uwo.ca/health/mental\\_wellbeing/index.html](http://uwo.ca/health/mental_wellbeing/index.html)) for a complete list of options how to obtain help.

### **Course Schedule and Readings (preliminary):**

<b>Week</b>	<b>Date</b>	<b>Topic Assignment</b>	<b>Assigned Reading</b>
1	12 <sup>th</sup> sept	Introduction & Teory based data analysis	Aneshensel, C1 & 2
2	19 <sup>th</sup> sept	Associations and relationships	Aneshensel C3
3	26 <sup>th</sup> sept	Causal inference	Aneshensel C4
4	3 <sup>rd</sup> oct	Multiple linear regression	Aneshensel C5
5	10 <sup>th</sup> oct	Fall reading week	
6	<b>17<sup>th</sup> oct</b>	<b>Mid term</b>	
7	24 <sup>th</sup> oct	Sample weights	Aneshensel C6
8	31 <sup>st</sup> oct	Spuriousness and statistical control <b>Assignment handed out</b>	Aneshensel C7
9	7 <sup>th</sup> nov	Alternative explanations	Aneshensel C8
10	14 <sup>th</sup> nov	Statistical mediation <b>Assignment due!</b>	Aneshensel C9
11	21 <sup>th</sup> nov	Statistical explanation in time, antecedent and consequent variables	Aneshensel C10
12	28 <sup>th</sup> nov	Mechanisms and moderating variables	Aneshensel C11