



# Sociology 6040

## Advanced Quantitative Methods

Winter 2021 • Thursdays 13:00-15:30 • Via Synchronous Remote Delivery  
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office hours: Tuesdays & Wednesdays 13:00-15:00; via Zoom  
book office hours meeting: <http://liamswiss.youcanbook.me/>

### 1 Course Overview & Objectives

This course introduces 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 Remote Delivery Expectations & Communications

This course is normally delivered on campus in a computer lab environment. With the Winter 2021 semester being offered remotely, this will not be possible. As such, the course will be delivered remotely via Zoom using a synchronous approach. This requires that students be present for each online class during normally scheduled course hours (Thursdays 13:00-15:30). Students are expected to:

- login to the weekly Zoom meeting in a timely manner;
- actively participate via video conference in the online classroom;
- follow along with the weekly Stata lab instruction using the software on their

- home computer;
- to be respectful and professional in their online conduct; and
- keep up to date on weekly course materials and assignments.

All classroom materials and assignments will be accessed and submitted through the Brightspace/D2L page for the class. Communication with the instructor should be made via MUN e-mail. Please include "SOCI 6040" in the subject of your message. I will aim to respond to e-mails within 24 hrs when received on weekdays, and within 48 hours for those received on weekends. Do not send course communication through the D2L mail system; I will not be checking that inbox. Please book online office hours appointments via the URL/link provided on page 1 above.

### 3 Course Readings & Statistical Software

#### Texts

Mehmet Mehmetoglu and Tor Georg Jacobsen. 2017. *Applied Statistics Using Stata: A Guide for the Social Sciences*. Thousand Oaks, CA: Sage. (hereafter M & J)

Healy, Kieran, and James Moody. 2014. "Data Visualization in Sociology." *Annual Review of Sociology* 40(1):105-28.

Stauffer, Katelyn, and Diana Z. O'Brien. 2018. "[Quantitative Methods and Feminist Political Science](#)" *Oxford Research Encyclopedia of Politics*.

Walter, Maggie, and Chris Andersen. 2013. [Indigenous Statistics: A Quantitative Research Methodology](#). Walnut Creek, CA: Left Coast Press.

Additional readings will be made available via the D2L site when required.

#### Software

Course instruction will be provided in Stata. Please purchase a copy of Stata for use on your own computer at home as there will be limited access to Stata via campus computer labs during the Winter 2021 semester because of COVID measures at MUN. Instruction in and support for other programs will not be offered by the instructor.

## 4 Course Requirements

Requirement	Value	Due Date
1. Take-Home Exercises (3)	10% ea	Feb 4; Mar 4; Apr 1
2. Research Paper Proposal	n/a	Feb 11
3. Article Deconstruction	10%	Feb 18
4. First Draft of Research Paper	10%	Mar 11
5. Final Draft of Research Paper	30%	Apr 8
6. Research Paper Presentation	15%	Apr 8

**1. Take-Home Exercises (30%):** *Due February 4, March 4, and April 1.* 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. Include all tables and figures created in your response in an appropriate format. This work must be completed individually.

**2. Research Paper Proposal (not graded):** *Due February 11.* 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. This proposal must be submitted before your draft paper will be reviewed.

**3. Article Deconstructions (10%):** *Due February 18.* 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 (double-spaced) 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.

**4. First Draft of Research Paper (10%):** *Due March 11.* 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 (35%): April 8.** This will be the final draft of the research paper outlined above incorporating the feedback provided by Dr. Swiss on your first draft.

**6. Research Proposal Presentation (15%): Due April 8.** You will prepare and deliver a maximum 10-minute conference-style presentation of your final paper at the end of semester Student Paper Symposium. Please make use of slides/visual aids and stick to the specified time limit. Paper presentation tips will be discussed in class.

## 5 Course Calendar

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<b>Week 1 – Jan 14</b>	<i>Data, Central Tendency, &amp; Distributions</i>	
<b>Week 2 – Jan 21</b>	<i>Categorical Data, Cross-Tabulation &amp; Data Visualization</i>	M&J Chapters 1-2; Healy & Moody; Assigned Article
<b>Week 3 – Jan 28</b>	<i>Inference &amp; Hypothesis Testing: T-Tests &amp; Chi-Square</i>	Assigned Articles
<b>Week 4 – Feb 4</b>	<i>Correlation, Causation, &amp; Linear Regression</i>	M&J Chapter 3; Assigned Article
<b>Week 5 – Feb 11</b>	<i>Multiple Regression</i>	M&J Chapters 4, 7
<b>Week 6 – Feb 18</b>	<i>Dummy Variables</i>	M&J Chapter 8
<b>Week 7 – Feb 25</b>	<b>MIDTERM BREAK – NO CLASS</b>	
<b>Week 8 – Mar 4</b>	<i>Logistic Regression</i>	M&J Chapter 5
<b>Week 9 – Mar 11</b>	<i>Interaction Effects</i>	M&J Chapter 6
<b>Week 10 – Mar 18</b>	<i>Data Transformations</i>	M&J Chapter 13
<b>Week 11 – Mar 25</b>	<i>Marginal Effects</i>	M&J Chapter 6
<b>Week 12 – Apr 1</b>	<i>Communicating your Results</i>	
<b>Week 13 – Apr 8</b>	<i>Student Paper Symposium</i>	

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## **6 Timely Submission of 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. All assignments will be due by 11:59pm on the due dates indicated above and submitted via the D2L assignment submission system.

If you require a deferred 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.

## **7 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>

## **8 Student Services**

Many student support services exist on campus that may be of use to you throughout the course of the term, and should be available remotely if needed. Please click links

below for more information:

1. [\*\*The Indigenous Student Research Centre \(4<sup>th</sup> Floor UC\)\*\*](#) provides support services to Aboriginal students. The office works to advocate and educate the general university population regarding inclusion of our unique Aboriginal peoples found within Newfoundland and Labrador.
2. [\*\*The Commons \(QEII library\)\*\*](#) provides access to print, electronic and technology resources.
3. [\*\*The Student Wellness and Counselling Centre \(UC-5000\)\*\*](#) helps students develop their personal capabilities, ranging from study strategies to assisting distressed students.
4. [\*\*The Glenn Roy Blundon Centre \(UC-4007\)\*\*](#) serves students whose disabilities involve conditions affecting mobility, vision, hearing, learning (disabilities), chronic illness, or mental health; support is also provided to students with documented temporary illnesses and injuries.
5. [\*\*Internationalization Office \(CA-2004\)\*\*](#) provides a variety of programmes to support international students' transition to Memorial University and Newfoundland.
6. **Student Affairs and Services (Answers, UC-3005)** answers questions about such things as courses, housing, books, financial matters and health.
7. [\*\*The Writing Centre \(SN-2053\)\*\*](#) is a free, drop-in facility for students and to help you become a better writer and critical thinker.