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Office: 6-394
Phone: 780-633-3243
E-mail: bouliannes@macewan.ca
Web Page: https://academic.macewan.ca/bouliannes/

Office Hours: Tuesdays & Thursdays 12:30 pm to 2:00 pm

Lecture Time: Tuesdays & Thursdays 9:30 am to 11:00 am

Lecture Room: 6-228

Course Description: This course examines quantitative research methods in Sociology. Topics covered include: advanced measurement and design issues, probability sampling issues, ethical issues, systematic observation, survey construction, experimental design, secondary analysis of existing information, and unobtrusive measures. Restricted to sociology majors or with the consent of the sociology department.

Course Prerequisites: Minimum grade of C- in SOCI 310 and SOCI 315. Students are responsible for having all prerequisites required for a given course. Prerequisite checks are periodically carried out and any students who do not have the appropriate prerequisite may be removed from the course. If you are removed from the course, you may be responsible for any tuition costs up to the date of removal.

Transfer Credit as prerequisite: Any courses from another post-secondary institute cannot be used as a prerequisite until assessed and officially approved as transfer credit.
**Course Objectives:** The overall goal of this course is to advance student’s understanding of quantitative research methodology. By the end of this course, students will be able to:

- Understand the importance of replication and open science practices to the advancement of social science;
- Conduct advanced multivariate analysis, including ordinary least squares regression and logistic regression;
- Engage in the peer-review process to offer constructive suggestions on how to improve research communication;
- Effectively present their quantitative research results in a variety of forums (papers, oral presentations, posters); and
- Identify some of the newest trends in quantitative social sciences.

**Course Hours:**
- Lecture 45
- Lab 0
- Seminar 0

**Course Credits:**
- 3 Credits

**Required Materials:**
IBM® SPSS® Statistics 25 Gradpack, 6-month subscription, Available: [https://estore.onthehub.com/](https://estore.onthehub.com/)

**Sociology Library Liaison**
Robyn Hall is the library liaison for Sociology. She can provide you and/or your students consultation services to support teaching and research, including demonstrating new databases or discussing integrating the use of library resources into your course assignments. You can reach Robyn by email (HallR27@macewan.ca).

**Grade Evaluation:**

<table>
<thead>
<tr>
<th>EXAMS</th>
<th>WEIGHTING</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Replication.Methods</td>
<td>15%</td>
<td>Jan22</td>
</tr>
<tr>
<td>Replication.Analysis</td>
<td>20%</td>
<td>Feb5</td>
</tr>
<tr>
<td>Extension Full Paper</td>
<td>40%</td>
<td>Mar19</td>
</tr>
<tr>
<td>Oral presentation</td>
<td>10%</td>
<td>Apr2</td>
</tr>
<tr>
<td>Poster presentation</td>
<td>5%</td>
<td>Apr2</td>
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**Class Participation:**

Class time is the best time for you to demonstrate that you have read and understood the readings. As such, we will be graded on active and informed contribution to class discussion and exercises. You are permitted two excused absences that won’t impact your grade. In addition, during class, we will be conducting peer-reviews of others’ work. You will hand in these peer-reviews to be assessed (pass-fail).
Replication Assignments:

These assignments will help you understand quantitative analysis by replicating the analysis conducted by others. Students will complete a replication of a published multivariate analysis paper that uses open source data such as Statistics Canada, American National Election Study, PEW data, or the Alberta Survey data series. This portion of the course includes a lot of hands-on work with SPSS and a lot of assistance from the professor. You will become familiar with common decisions made during the analysis stage (recoding of variables, selection of cases, etc.) and be encouraged to think critically about the impact of these decisions. Partner work is permitted on the replication assignment.

Replication of Methods (Descriptive Statistics): Students will recode all variables used in the published article’s multivariate analysis, then compute descriptive statistics (mean, modes) for each variable, then write up these statistics and describe the dataset, survey questions. The assignment will consist of one table and two double-spaced pages of writing.

Replication of Findings (Multivariate Analysis): Students will recreate the tables used in the published analysis, then write up these results (1-2 tables, 2 single-spaced pages of writing). The assignment will consist of one (or two) tables and four double-spaced pages of writing.

Option #1: Social Media, Civic Engagement
Data source: Alberta Survey, 2016

Option #2: Climate Change, Ideology
Data source: Alberta Survey, 2006

Option #3: Age, Boycotting
Data source: Statistics Canada GSS, 2008

Option #4: Gender, Online Political Expression
Data source: Pew, 2012

Option #5: Trust, protest
Data source: World Values Survey, 2005
**Extension Assignments:**

These assignments will help you understand the connection between theories and quantitative analysis. Students will plan to extend the model by returning to the literature (theories) to figure out how to improve the model. The student will consult with the instructor to figure out what to do, but some ideas are:

- Using the existing data set: what additional variables could be included in the model, are there interaction effects involving gender, are there some non-linear age effects, or how do the results change for different analysis approaches (OLS to logistic regression)?
- Using a newer data set: replicate the analysis. See: [https://toolbox.google.com/datasetsearch](https://toolbox.google.com/datasetsearch) or consult with our data librarian, Tara Stieglitz (data@macewan.ca) and explore sources here [http://libguides.macewan.ca/data_stats](http://libguides.macewan.ca/data_stats).

**Literature review:** Students will participate in a library session to find relevant literature. They will find a minimum of 10 sources, then write a 5-6 page draft of the literature, specifying the key theories, pointing out gaps in existing knowledge, contextualizing their research questions/hypothesis.

**Extension, Full Paper:** Next, students will execute the extension analysis piece. They will write (or rewrite) the methods section and the findings sections, ending with a Discussion linking the literature and their findings, acknowledging weaknesses in the project and proposing additional areas of research. They will write up the extension piece as a publishable paper, using APA style 6.0 guidelines on writing about quantitative results. Students will share this draft in class to get peer-review feedback as well as give feedback.

Grading Rubric for Full Paper and outline of paper are on the next page.
## Grading Scheme:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Points</th>
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<tbody>
<tr>
<td><strong>Grading Scheme:</strong></td>
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<tr>
<td>Abstract: This topic is important. We don’t know ____ about the topic. We use this kind of data. We find 1), 2), and 3). These findings are important because...</td>
<td>2</td>
</tr>
<tr>
<td>Introduction: <strong>1 page</strong></td>
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<tr>
<td>What is your topic? Why does this topic matter? Brief description of your findings.</td>
<td>3</td>
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<tr>
<td>Literature Review: <strong>5.5 pages</strong></td>
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<tr>
<td>What is the theory guiding this research? What has been found on this topic? What isn’t known about the topic? <strong>5 pages</strong></td>
<td>10</td>
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<tr>
<td>You are assessed on the quality of literature sources. You should end with a description of your research hypotheses. <strong>½ page</strong></td>
<td>5</td>
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<tr>
<td>Methods: <strong>2-3 pages</strong></td>
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<tr>
<td>-Describe the data set used, e.g., Alberta Survey or another data set. Refer to methodology report, tell me about the method of data collection and sampling approach.</td>
<td>3</td>
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<tr>
<td>-For EACH of VARIABLE include the following information:</td>
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<tr>
<td>-list of values</td>
<td>15</td>
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<tr>
<td>-description of the variables including the survey question</td>
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<tr>
<td>-describe the mode or mean in sentence format</td>
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<td>-has this measure been used in other studies? Is it valid?</td>
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<td>-If you created new variables, explain how.</td>
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<tr>
<td>-<strong>Table 1: Descriptive Statistics</strong></td>
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<td>Findings: <strong>3-4 pages</strong></td>
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<td>-Describe the results using your research hypotheses to frame the narrative.</td>
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<tr>
<td>-<strong>Tables 2 and 3: Multivariate Analysis</strong></td>
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<tr>
<td>Discussion and Conclusion: <strong>2.5 pages</strong></td>
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<td>-Evaluate the data reflecting on how it supports or does not support existing theories; how it is consistent or not consistent with other works in the field; discuss new findings about topic.</td>
<td>5</td>
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<tr>
<td>-In the paper’s conclusion, reflect on how the methodology (sampling, survey questions, etc.) could be improved in future projects.</td>
<td>4</td>
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<tr>
<td>Clarity and conciseness in presenting ideas as well as general organization</td>
<td>5</td>
</tr>
<tr>
<td>-Double check your work for typos, grammar errors, run-on sentences</td>
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<tr>
<td>-Make sure the paragraphs have a thesis statement</td>
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<tr>
<td>-MUST use section headings: Introduction; Literature Review; Methods; Findings; Discussion and Conclusion; References; Attachments</td>
<td></td>
</tr>
<tr>
<td>References:</td>
<td></td>
</tr>
<tr>
<td>As mentioned, you need at least 10 peer-reviewed articles or book chapters. You are graded on the quality of the sources in the literature review section.</td>
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<tr>
<td>Attachments:</td>
<td></td>
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<tr>
<td>As mentioned, you must attach your SPSS output.</td>
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<tr>
<td><strong>Total points:</strong></td>
<td><strong>70</strong></td>
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Presentations:

Finally, students will produce a 15-min oral conference presentation on their paper, using Powerpoint or something similar (10%) and a poster version (5%) of their paper. Students are encouraged, but not required, to present these results at the Student Research Day in April at MacEwan.

Grade Criterion:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>95-100</td>
<td>4.0</td>
</tr>
<tr>
<td>A</td>
<td>90-94</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>85-89</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>80-84</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>76-79</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>72-75</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>68-71</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>64-67</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>60-63</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>55-59</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>50-54</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>0-49</td>
<td>0</td>
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</tbody>
</table>

Please Note:

1. The official grading system at MacEwan University is the 12-point letter grade system. While instructors may use percentages to aid in their grade development, percentages are not part of MacEwan University’s official grading system.
2. A minimum grade of C- is required to receive university transfer credit or to satisfy a prerequisite for a higher level course.
3. Some university career programs will accept a grade of D.
Lecture Schedule & Assigned Readings:

**Part 1: Replication**

**Jan8:** Course Overview

**Jan10:** Replication in Social Science (Guest speaker: Robyn Hall)

*Readings:*

**Jan15:** Picking a Project

*Readings:*
Pick one of the papers listed in the Replication Assignment section of course outline.

**Jan17:** Descriptive Statistics

**Jan22:** Running Descriptive Statistics (SPSS)

**Jan24, 29:** Multivariate Regression

*Readings:*

**Jan31-Feb5:** Running Multivariate Regression (SPSS)
Part 2: Extension

Feb 7: Writing Quantitative Academic Articles

Readings:

Feb 12: Library session, Data Availability (Robyn Hall, Tara Stieglitz)

Feb 14: Work on your literature review (in class)

Feb 26: Finalizing new data source

Feb 28: Nonlinear effects, Interaction Effects

Readings:

Mar 5, 7: Extending your analysis (SPSS)

Mar 12: Peer review of papers

Readings:

Mar 14: Finalize papers
Part 3: Presentation

Mar 19, 21: Guest speakers on Advanced Quantitative Analysis (computational social science, structural equation modeling, etc.)

Mar 26, 28: Conference Presentations

Readings:
Wiley. 6 Tips For Giving a Fabulous Academic Presentation. Retrieved from https://hub.wiley.com/community/exchanges/discover/blog/2018/03/08/6-tips-for-giving-a-fabulous-academic-presentation

Apr 2, 4: Student Presentations
**Student Responsibilities:**
Students are expected to be aware of their academic responsibilities as outlined in Policy E3101: Student Rights and Responsibilities. Policies are available online at MacEwan.ca/policymanual.

**Academic Integrity at MacEwan**
MacEwan’s Academic Integrity Policy promotes honesty, fairness, respect, trust, and responsibility in all academic work. The policy defines academic dishonesty as the following: “Academic dishonesty involves participating in acts by which a person fraudulently gains or intentionally attempts to gain an unfair academic advantage thereby compromising the integrity of the academic process.” It includes the commission of the following:
- cheating
- plagiarism
- improper collaboration
- fabrication and falsification
- assisting others in dishonest behaviour
- obtaining an unfair advantage
- multiple submission

Students are responsible for understanding what constitutes academic dishonesty. All incidents of academic dishonesty are reported to and recorded by the Office of Academic Integrity.

**REGISTRATION STATUS:** Students are responsible for ensuring the accuracy of their registration in courses. This can be checked at any time using MyStudentSystem.

**WITHDRAWING FROM THE COURSE:** Students who stop attending class must officially withdraw from the course. This must be done by the official withdrawal deadline for the course, which is available at the Office of the University Registrar. Failure to withdraw properly will result in a grade being assigned that is based on completed course work.

**EXAMS:** Your student photo I.D. is required at exams to verify your identity. At the discretion of the instructor, students may or may not be allowed to begin an examination after it has been in progress for 15 minutes. Students must remain in the exam room for at least 20 minutes from the time the exam commenced. Consumption of food is not allowed during exams. Electronic equipment, other than calculators, is not to be brought to exams and hats should not be worn.

**MISSED EXAMS:** When students miss an exam, test, or quiz the instructor should be notified of the reason within 48 hours. Valid reasons for missing an exam, test, or quiz include illness, jury duty or court subpoena, death in the family, or other emergency approved by the Instructor. If a student misses a midterm because of illness or other circumstances approved by the instructor, then the student will receive an excused absence for the missed exam. The other midterm grade will be used as the midterm mark in the calculation of the final grade. No deferred exam will be given. If possible, the student must arrange this with the instructor before the exam, by sending an email to
It is the student’s responsibility to keep up with class work when they are absent from class. Absence from class will not be accepted as a legitimate reason for failure to attend an exam on time.

**LATE ASSIGNMENTS:** If an assignment is late (submitted after 3:30pm on the due date), 15% per 24 hour period will be deducted. For example, if you submit the report at 8pm, you will receive a 15% deduction (75% becomes 60%).

**ELECTRONIC DEVICES:** Cell phones and other electronic devices are to be turned off during lectures, labs, seminars, and exams (except under exceptional circumstances in which approval has been granted by the instructor). Laptop use is permitted only for taking class notes and/or following PowerPoint slides.

**SPECIAL ACCOMMODATIONS:** Policy [E3400: Student with Disabilities](https://example.edu/). Students who require special accommodation in this course due to a disability are advised to discuss their needs with [Services to Students with Disabilities (SSD)](https://example.edu/).

**EMAIL:** Students are required to regularly check and use their MacEwan email accounts for all MacEwan business and communication. The myMacEwan.ca portal provides access to your MacEwan email.

**APPEALS:** Policy [E3103: Student Appeals](https://example.edu/). Students may contact [Student Affairs](https://example.edu/) for assistance.

Disclaimer: The information in this Course Outline is subject to change; any changes will be announced in class.