



Course title:	QUANTITATIVE METHODOLOGIES FOR SOCIALLY JUST INQUIRY
Course #/term:	SSW 671-001, Winter, 2023
Time and place:	Tuesday, 9am-12-pm, 2310 SEB
Credit hours:	3
Prerequisites:	Foundation Essentials
Instructor:	Roland Zullo
Pronouns:	He, His, Him
Contact info:	rzullo@umich.edu You may expect a response within 48 hours
Office:	4687
Office hours:	Monday, 12 - 2pm and by appointment

1. Course Statement

a. Course description

This course is designed to advance the foundational ideas of quantitative research in social work and the social sciences, with a particular focus on applied quantitative research dedicated to the study of social problems and the development of social interventions at the macro, meso and micro levels. The course will deepen students' understanding of such issues as sample selection, measurement, and questionnaire design, research design, and basic analytic approaches. Students enrolled in the Evaluation and Research Pathway must select from one of two required foundational courses before completing their specialized electives in methodologies and methods. This course will meet that foundational requirement.

b. Course objectives and competencies

1) Understand the importance of evidence for practice at the macro, meso and micro levels of social work practice with particular attention paid to being able to differentiate between (EPAS 1, 4, 9)

- a. Policies and programs that are supported by evidence
 - b. Policies and programs that are not supported by evidence
 - c. Policies and programs that have null effects
 - d. Policies and programs that have iatrogenic effects.
- 2) Develop an understanding of issues in measurement and questionnaire design (EPAS 4, 7, 9)
 - 3) Understand research designs, and their importance for internal validity (EPAS 4, 7, 9)
 - 4) Understand sampling with particular attention to issues of external validity (EPAS 4, 7, 9)
 - 5) Develop an advanced understanding of basic descriptive and bivariate statistics (EPAS 4, 7, 9)

c. Course design

Course will be a mixture of interactive lecture/presentations, along with extensive use of small group work and lab activities.

d. Intensive focus on PODS

This course integrates PODS content and skills with a special emphasis on the identification of theories, practice and/or policies that promote social justice, illuminate injustices and are consistent with scientific and professional knowledge. Through the use of a variety of instructional methods, this course will support students developing a vision of social justice, learn to recognize and reduce mechanisms that support oppression and injustice, work toward social justice processes, apply intersectionality and intercultural frameworks and strengthen critical consciousness, self-knowledge and self-awareness to facilitate PODS learning.

This course integrates PODS content and skills by discussing the importance of generating evidence for social work programs and interventions that serve marginalized and oppressed populations. Students will investigate the ways in which power and privilege is related to ways in which quantitative research is carried out, and the ethical obligation of researchers to be mindful of the interplay of diversity, equity and inclusion with the way in which quantitative research is conducted.

2. Class Requirements

a. Readings, software and data

There is no required textbook for this class. Required readings and supplements are listed on Canvas. The class schedule includes links for helpful online resources.

In addition to Excel, students need a statistical software package in this course. Three available options are SPSS, Stata and R. SPSS is the most user friendly, Stata has a wide range of technical functions, and R is a powerful, free, and relatively new open-source program. Students are encouraged to form support groups to share knowledge and tips on their chosen statistical package.

Students can purchase a copy of SPSS from the Tech Shop for \$38 at:

<https://techshop.umich.edu/software/windows.html>.

Students can purchase a **one-year** subscription of Stata BE (basic version) for \$94 at:

<https://www.stata.com/order/new/edu/profplus/student-pricing/>

Students can obtain R for free. Instructions for R downloading and sample commands are at: <https://www.r-project.org/> The University does not support R, so you might need to seek help from other students or CSCAR <https://cscar.research.umich.edu/about/>.

Data is supplied by the instructor. During the course of the semester, the class will draw lessons from two data sets: The 2017 USA World Values Survey (WVS) and the 2019 National Health Interview Survey (NHIS). Links to each dataset are at:

WVS: <https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp>

NHIS: <https://www.cdc.gov/nchs/nhis/2019nhis.htm>

Students are required to choose **one** of these two datasets for their main assignment. Students can work on a different dataset, but they must get instructor approval.

b. References for readings and web sources

Batchelor, Amy (2019). Statistics in Social Work: An Introduction to Practical

Applications. Columbia University Press

Royse, David (2020) *Research Methods in Social Work*, 8th Edition. Cognella.

Rubin, Allen, & Babbie, Earl R. (2008). *Research Methods for Social Work*. Belmont, CA: Thomson/Brooks/Cole.

Regression: <https://stats.idre.ucla.edu/stata/webbooks/reg/chapter1/regressionwith-statachapter-1-simple-and-multiple-regression/>

Imputation: https://stats.idre.ucla.edu/stata/seminars/mi_in_stata_pt1_new/

Transformation: <https://stats.idre.ucla.edu/stata/examples/chp/regression-analysis-by-example-third-editionchapter-6-transformation-of-variables/>

c. Class schedule

Date	Agenda
Week 1; 1/10	Formulating the research question and hypotheses
Week 2; 1/17	Scientific method and causal tests
Week 3; 1/24	Data types, transformations and imputations
Week 4; 1/31	Survey design and administration
Week 5; 2/7	Data presentation: tables, charts and graphs
Week 6; 2/14	Correlations, t-test, chi-square, proportion tests
Week 7; 2/21	Group consultation day
Week 8; 3/7	Regression: introduction to OLS
Week 9; 3/14	Regression predictions and diagnostics
Week 10; 3/21	Model building: dummy variables & interactions
Week 11; 3/28	Categorical and limited dependent variables
Week 12; 4/4	Panel data analysis
Week 13; 4/11	Project presentations
Week 14; 4/18	Project presentations

d. Assignments

Research is a process of discovery. This class is structured to walk students through the research process, including: forming a research question and hypotheses, design, data analysis and hypotheses testing, and interpreting and conveying results to an audience. By the end of the semester, students will be familiar with the research process and better understand the value and limits of empirical analyses.

The main assignment for this class is a research project where students develop and test hypotheses from the World Values Survey (WVS), the National Health Interview Survey (NHIS), or a dataset of their choosing (with instructor's approval). Fifty percent of the class grade is determined by how well students perform each research phase and the quality of the final product.

Research benefits from the constructive and collaborative input of others. Students are encouraged to discuss any aspect of their research project with classmates or to access University resources, such as CSCAR (<https://cscar.research.umich.edu/>). Students should acknowledge the source of any assistance, while also stating that responsibility for the final product belongs to the research author(s). A typical statement would read:

"I thank Lucy Parsons, Mary H. Jones and Louise Bryant for valuable insights into this research, and the helpful assistance from CSCAR. All results and statements are the sole responsibility of the author."

A professional research paper will reference peer-reviewed research that is germane to the topic. A list of searchable databases through the University of Michigan system is at: <https://guides.lib.umich.edu/c.php?g=283005&p=1885636>

For assistance on finding relevant research, please contact the School of Social Work Librarian, Darlene Nichols, at: dpn@umich.edu

Adhere to APA style format for references and citations. An APA style sheet is available in Canvas. For more: <https://apastyle.apa.org/style-grammar-guidelines/paper-format>
Or even more: <https://guides.lib.umich.edu/c.php?g=283005&p=1885639>

Final papers use double spaced text, one-inch margins and 12-point font.

Elements of the research project are to include the following (use highlighted headers):

- a) **Title Page.** Title of research project, author name, affiliation, date and acknowledgements.
- b) **Introduction.** Describes the primary research question, the motivation for the research, theory and hypotheses. Include citations from relevant background literature. Up to three pages.
- c) **Data and Measures.** Describe the data (i.e., sample size, dates, context, etc.) and your measures. Mention data transformations and imputations and rationale. Provide a table that defines each measure along with descriptive statistics. Include graphs, if appropriate. Up to two pages not including tables and graphs.
- d) **Methods and Results.** Describe your analytical strategy, specifying your dependent variable, your primary variables of interest and controls. Include a well-documented and nicely formatted table for univariate/bivariate analyses, and a nicely formatted table for multivariate analyses. Provide predicted estimates based on the results that relate to what was said in the introduction (section b, above). Graph the results, if appropriate. Up to three pages not including tables or graphs.
- e) **Conclusions and Implications.** Discuss your results in relation to your original research question. Mention whether or not the hypotheses were falsified or not, and implications for your research question, as well as for policy, practice and intervention. Briefly mention study limitations and offer thoughts on future research. Up to three pages.
- f) **Sources.** Alphabetical list of references cited in APA style.
- g) **Appendices.** Reserved for detailed, often technical discussions that would distract readers if placed in the main body of the manuscript.

There are three quizzes, each worth ten percent of the final grade. The quizzes will be posted on Canvas at the end of class and due the following day at noon. Students are to complete the quizzes on their own.

Finally, ten percent of the grade is determined by class participation, taking into consideration attendance, attentiveness and comments. Opportunities to engage in discussions will be made available on Canvas. Comments are to be respectful, constructive and mutually supportive.

Assignment	Due date/time	Percent of grade
Upload and review data	1/17/2023	Not graded

Assignment	Due date/time	Percent of grade
Project research question, hypotheses and variables	2/7/2023 – 11:59pm	10 percent
Quiz 1	2/14/2023 – 11:59pm	10 percent
Project descriptive statistics and exploratory tests	2/21/2023 – 11:59pm	10 percent
Quiz 2	3/14/2023 – 11:59pm	10 percent
Quiz 3	3/28/2023 – 11:59pm	10 percent
Project final paper	4/10/2023 – 11:59pm.	30 percent
Project presentation	4/11/2023 or 4/18/2023	10 percent
Submit all assignments and quizzes through Canvas. Class participation is 10 percent.		

e. Attendance and class participation

This is an in-person class that features group problem solving. It is therefore important for students to attend class in order to fully participate. Zoom recordings are available for persons that cannot attend. Students should inform the instructor of any absence.

f. Grading

1. Research project: 50 points total. There are three components to the research project due at different times: (1) question, hypotheses and variables (10 points); (2) descriptive statistics and exploratory tests of variables (10 points); and (4) final paper (30 points).
2. Quizzes (3): 30 points.
3. Presentation: 10 points.
4. Class participation: 10 points.

In all instances, grades are based on the completeness of the assignment, the correct use and interpretation of statistical or data output, grammar, structure, readability, and the comprehensive communication of your findings.

Late submissions for any assignment or quiz will suffer a penalty of 1 point for each part or full day in 24 hour increments that begin with the due date and time. Please contact the instructor if you have exceptional circumstances.

Grades. Your course grades are based on total points scored on all assignments and activities above:

A+	98-100	B+	88-89	C+	78-79	D ≤ 69 (Fail)	
A	93-97	B	83-87	C	73-77		
A-	90-92	B-	80-82	C-	70-72		

g. Class Recording and Course Materials

Audio and video recording of in-class lectures and discussions is prohibited without the advance written permission of the instructor. Students with an approved accommodation from the Office of Services for Students with Disabilities permitting the recording of class meetings must present documentation to the instructor in advance of any recording being done. The instructor reserves the right to disallow recording for a portion of any class time where privacy is a special concern. If the instructor chooses to record a class, they will decide which classes, if any, are recorded, what portion of each class is recorded, and whether a recording is made available on the course management website. On days when classes are recorded, students will be notified a recording is occurring. Class recordings and course materials may not be reproduced, sold, published or distributed to others, in whole or in part, without the written consent of the instructor.

h. COVID-19 Statement

For the safety of all students, faculty, and staff on campus, it is important for each of us to be mindful of safety measures that have been put in place for our protection. By returning to campus, you have acknowledged your responsibility for protecting the collective health of our community. Your participation in this course on an in-person/hybrid basis is conditional upon your adherence to all safety measures mandated by the state of Michigan and the University, including maintaining physical distancing of six feet from others, and properly wearing a face covering in class. Other applicable safety measures may be described in the Wolverine Culture of Care and the University's Face Covering Policy for COVID-19. Your ability to participate in this course in-person/hybrid may be impacted by failure to comply with campus safety measures. Individuals seeking to request an accommodation related to the face covering requirement under the Americans with Disabilities Act should contact the Office for Institutional Equity. If you are unable or unwilling to adhere to these safety measures while in a face-to-face class setting, you will be required to participate on a remote basis. I also encourage you to review the Statement of Student Rights and Responsibilities and the COVID-related Addendum to the Statement of Student Rights and Responsibilities.

i. Health-Related Class Absences

Please evaluate your own health status regularly and refrain from attending class and coming to campus if you are ill. You are encouraged to seek appropriate medical attention for treatment. School of Social Work students who miss class due to illness of any kind will be given opportunities to access course materials online or provided with alternative learning opportunities. Please notify me by email about your absence as soon as practical, so that I can make accommodations. Please note that documentation (a doctor's note) for medical excuses is *not* required.

Additional School and University policies, information and resources are available here: <https://ssw.umich.edu/standard-policies-information-resources>. They include:

- *Safety and emergency preparedness*
- *Mental health and well-being*
- *Teaching evaluations*
- *Proper use of names and pronouns*
- *Accommodations for students with disabilities*
- *Religious/spiritual observances*
- *Military deployment*
- *Writing skills and expectations*
- *Academic integrity and plagiarism*