SOAN*3120: QUANTITATIVE METHODS
University of Guelph
Department of Sociology and Anthropology

Fall 2024

Section 02: Monday/Wednesday 1:30-2:30pm, LA-204 (Landscape Architecture Building)

Instructor: Dr. Andrew D. Nevin | anevin@uoguelph.ca

SOAN*3120 introduces students to methods of analyzing quantitative (numerical) data that are used by sociologists, criminologists, and anthropologists. We will begin with foundational topics, including quantitative research questions, operationalizing variables, and levels of measurement. Then, we will explore the common statistical techniques used in empirical quantitative research, including descriptive statistics, hypothesis testing, and measures of association for bivariate and multivariate relationships. Although statistics are based on mathematical calculations, students do not require advanced mathematical knowledge to succeed in this course. Instead, we will prioritize gaining an understanding of when, why, and how to use various analytic techniques, as well as how to interpret their results. Students will also acquire skills using SPSS, a computer software program, to analyze social data, mostly in the Canadian context. Overall, this course provides students with a range of practical skills and will prepare them to critically read the research literature and take more advanced courses in social statistics.

This course has several learning outcomes. By the end of the semester, students will be able to:
- Demonstrate knowledge of core methodological concepts related to quantitative data collection and analysis
- Conduct basic statistical analyses for both descriptive and inferential problems, and accurately and meaningfully interpret the results
- Develop hands-on skills for analyzing social data with SPSS software
- Apply appropriate statistical techniques to investigate research questions that address contemporary, historical, social, and global issues (and foster intellectual curiosity)
- Critically evaluate existing quantitative research found in the social sciences literature
- Cultivate skills for effective analytical thinking, problem-solving, and time management

This course involves in-person lectures (Monday/Wednesday) that will largely focus on explaining the general principles and fundamental procedures of quantitative analyses. Students will also attend weekly seminars in smaller groups led by teaching assistants who will provide additional instruction and support for learning SPSS to enable the completion of homework exercises and written assignments. Course readings are TBD.

Students' grades will be determined based on a combination of a midterm exam, a final exam, 3 short written assignments that include the use of SPSS (and will be submitted online by the listed due dates), and seminar engagement (i.e., participation and completion of homework exercises). Exams will be in-person, will include multiple-choice and written response questions, as well as are anticipated to be open book by allowing students to create and refer to a "cheat-sheet" containing a limited subset of course materials.

Please note that this draft outline is for informational purposes only and a complete course syllabus will be provided via CourseLink on the first day of classes. As such, the room location and assessment structure are subject to change prior to finalizing the syllabus in September.