



## Course Outline

### **Sociology 3306B (section 530) Investigating the Social World: Quantitative Research**

#### **General Information**

Term: Winter

Year: FW21

Course Day and Time: Tuesdays, 8:30 - 10:30 am; Thursdays, 9:30 - 10:30 am

Course Location: BR 206

#### **Instructor Information**

Prof. E. Bell

E-mail: eabell@uwo.ca

Telephone: 519-432-8353 ext.28236

Office hours: Tuesdays and Thursdays, 10:30 - 11:30 am

Office location: 321 Ursuline Hall

#### **Course Description**

Mandatory for third-year Sociology students in an Honors Specialization. In this course students will learn to evaluate quantitative sociological research and gain hands-on experience carrying out and writing up a research project that investigates current social issues. Topics include: posing a research question, developing concepts and measures, and analyzing quantitative survey data.

#### **Prerequisite(s):**

Enrolment in an Honors Specialization or Honors Double Major in Sociology or Criminology with a minimum grade of 60% in Sociology 2205A/B and Sociology 2206A/B, or Social Work 2206A/B and Social Work 2207A/B. If not in an Honors Specialization or Honors Double Major, a minimum grade of 70% in Sociology 2205A/B and Sociology 2206A/B, or Social Work 2206A/B and Social Work 2207A/B is required.

**Note: Students will need a portable USB drive (“flash drive”) for the assignments in this course. A capacity of 256 MB is plenty.**

The philosophy to be followed in this course is:

I hear, and I forget.

I see, and I remember.

I do, and I understand. (Confucius, sometimes attributed to Xunzi)

Much of the learning for this course will take place through conducting your own research project

and completing a number of assignments. An important learning opportunity will come from the feedback you get from your fellow students and the instructor as you complete various stages of your research. You will receive guidance on how to do statistical analysis using SPSS software, which will be complemented by instruction on various statistical issues.

### **Teaching Methodology and Expectations of Students**

Students are expected to engage with the material in every class, and to complete the course requirements on time.

### **Required Course Materials**

Library reading #1, “Multivariate Relationships,” available on the OWL site under “Resources.”

Library reading #2, “Multiple Regression and Correlation,” available on the OWL site under “Resources.”

### **Learning Outcomes**

A number of lectures will be devoted to refreshing your memory on some basic statistical procedures that you learned in Sociology 2205A/B, and to an introduction to multivariate statistics. Instruction will be provided to help you learn how to conduct those statistical analyses using SPSS software.

### **Learning modules**

Several conceptual, statistical, and technical learning modules will be interspersed throughout the term to develop your skills in conducting and evaluating quantitative social research. These include:

1) Using SPSS software to create new variables using the Transform > Compute Variable function; specifying missing data; creating syntax files; creating variable and value labels; producing and interpreting basic descriptive statistics: mean, median, mode, standard deviation, standard error of the mean, skewness and kurtosis; basic graphing techniques: line graphs, histograms with normal curves superimposed; and using the Explore function to create confidence intervals for a mean and to test the significance of the difference between two sample means.

2) Discussion of basic causal models:

- a) independent effects
- b) spurious relationships
- c) suppressor variables
- d) chain relationships
- e) interaction effects

Assigned reading: Library reading #1, “Multivariate Relationships,” available on the OWL site under “Resources”.

3) Using SPSS software to recode variables and select cases (working with a subset of respondents); creating and interpreting two- and three-way contingency tables; producing and

interpreting the chi square statistic; and producing and interpreting measures of association for nominal and ordinal variables: lambda, gamma, Kendall's tau-b, and Spearman's rho.

4) Review of Pearson's  $r$ , simple (bivariate) regression, and one-way analysis of variance; introduction to multiple (linear) regression; use of "dummy" variables in regression; standardized and unstandardized regression coefficients.

Assigned reading: Library reading #2, "Multiple Regression and Correlation," available on the OWL site under "Resources".

5) Working with weighted samples.

6) Handling missing data: listwise versus pairwise deletion of missing cases.

### **Brescia Competencies**

Brescia courses are designed to develop students' competencies in a number of different areas (see [https://brescia.uwo.ca/about/competency\\_based\\_learning/index.php](https://brescia.uwo.ca/about/competency_based_learning/index.php)). This course is designed to create a learning environment in which you will develop your competency in:

1) **Critical thinking:** *The ability to engage in thinking characterized by the rational, informed, independent, and open-minded exploration of issues, ideas, and events before accepting or formulating a conclusion.*

We will focus on how to think analytically and statistically about the world around you, and how to evaluate empirical claims about the social world. You will gain experience in constructively criticizing published quantitative research, and in offering critiques of the ideas and research presented by your classmates.

2) **Inquiry and analysis:** *The ability to ask questions, examine issues, and reach informed conclusions by breaking down complex issues, exploring evidence, and describing relationships among persons, things, or events.* This is the major focus of this course.

You will learn valuable lessons in how to conduct your own inquiry into and quantitative analysis of a sociological topic of your own choosing. In particular, you will gain experience in using multiple linear regression to investigate your topic.

3) **Problem solving:** *The ability to create and execute a strategy to answer a question or achieve a goal. Includes being able to anticipate the consequence of a potential solution, select a strategy among several alternatives, and decide when an acceptable outcome has been reached.*

The first step in problem solving is identifying what the problem is. In social research, the identification of the problem to be solved often takes the form of posing a *research question*.

You will get some practice in formulating a research question, which you will then address by doing multivariate analyses of survey data and other related tasks throughout the term.

You will also learn how to use SPSS software to calculate and interpret statistics and thus how to use it to solve statistical problems.

4) **Communication:** *The ability to exchange information and meaning across cultures, space, and time appropriately and correctly. This competency includes oral, written, and interpersonal communication, and the ability to use current or innovative media.*

You will have an opportunity to communicate what your research question is and how it will be researched, to discuss how your results may be interpreted, and to indicate what the social and theoretical implications of your findings are.

5) **Self awareness and development:** *The ability to draw meaning, knowledge and value from honest and fair reflection and self-evaluation. Students are able to recognize their emotions and patterns of thinking, their impact on others, and make a commitment to personal growth.*

6) **Social awareness and engagement:** *The ability to respect and be open to diversity (e.g. cultural, religious, political) and social justice. Students take personal responsibility to actively engage in and contribute to creating positive change in local, regional, national, or global communities and societies.*

These competencies are enhanced by increasing your knowledge about the empirical world and how it may be researched and analyzed. To develop oneself and to become more socially aware and engaged, it helps to have some familiarity with quantitative research procedures that allow you to better understand certain aspects of yourself and society at large.

7) **Valuing:** *The ability to make decisions or choose actions based on the consistent application of principles expressing fundamental values that are accepted on account of reason or spiritual insight.*

An important part of developing this competency relates to the issue of how to conduct social research in an ethical manner. Also to be considered and discussed are the social justice implications of the research you will do.

### **Copyright and Intellectual Property**

PowerPoint lecture slides and notes, lists of readings, in-class activities, assignment guidelines, and other components of the course materials are typically the intellectual property of the instructor. Unauthorized reproduction through audio-recording, video-recording, photographing, sharing on social media, or posting on course-sharing websites is an infringement of copyright and is prohibited. Such action may be considered a Code of Conduct violation and lead to sanctions.

## Evaluation

Evaluation Breakdown:

<b>Component</b>	<b>Weight</b>	<b>Deadline</b>
The initial statement of your research question	5%	Tuesday, January 18
Computer assignment #1	10%	Thursday, January 27
Research proposal	25%	Thursday, February 10
Computer assignment #2	10%	Thursday, February 17
Computer assignment #3	10%	Thursday, March 17
Major research project	40%	Tuesday, March 22

## Academic Accommodation

For course components worth 10% or more of the total course grade, please see the Academic Policies and Regulations section at the end of this course outline or consult the Academic Calendar.