



School of Social Work

FACULTY OF ARTS

The UBC School of Social Work acknowledges that we are located on the traditional, ancestral, and unceded territory of the xʷməθkʷəy̓əm (Musqueam) people. The School logo designed by Ray Sims, a member of the Musqueam Nation, depicts Raven transforming into a human child. Raven is seen to be the most magical of all beings with the ability to shapeshift into anything at will. The most frequent form Raven takes is that of a human. Through adventures, Raven creates much of what we have around us. Humans learn much and acquire much knowledge of life and living through learning the orals associated with Raven's adventures and misadventures, for Raven intentionally, as well as inadvertently, has created much by making mistakes.

School Vision: *Building upon a foundation of social justice and an ethic of care, we are a community of learners actively engaged in the development of critical, transformative knowledge for social work practice.*

School Mission Statement: *Based on a commitment to fundamental social work values and a vision of social justice, UBC's School of Social Work prepares social work students for generalist and advanced professional practice. We promote the scholarly generation of critical transformative knowledge through research and study relevant to social work theories, practices, social development and social administration.*

MSW Mission

The MSW program offers an accessible, advanced professional degree focused on social work practice in the fields of child and family welfare, health and social care, and international and social development, using a social justice lens. The purpose of this MSW program is to prepare our graduates to be competent social work professionals, equipped with state-of-the-art knowledge and skills, a critical analytic lens, and a social justice orientation.

COURSE INFORMATION

Year/Term	2023 - 24 Winter, Terms 1 & 2, September 5 2023 to April 12 2024
Course Title	SOWK 553C: Quantitative Methods in Social Work Research
Course Value	6 credits
Course Schedule	Fridays, 10am to 1pm
Course Location	SWNG 106 - West Mall Swing Space Building, Room 106

Instructor	Office Location	Office Phone	Email address
Xuejun Ryan Ji			x.ryan.ji@ubc.ca
Office Hours	Fridays, 1pm to 2pm		

Prerequisite and/or Co-requisite

There are no pre- or co-requisites for this course.

Course Description

This course provides an overview of methodologies that can be used in social work inquiry *with a focus on quantitative methods*. Students will learn how to design a study, conduct analyses of data, and interpret appropriately research findings.

Course Structure and Learning Activities

Lectures and class discussions will be complemented by individual and group exercises.

Learning Outcomes

- Familiarize students with a variety of analytic approaches to social work research.
- Introduce students to processes, methods and issues in quantitative research.
- Strengthen abilities to critically read and evaluate research designs and findings of quantitative studies.
- Facilitate skills in identifying questions relevant to social policy, social service programs and social work practice that can be addressed using quantitative designs and analysis.

Textbooks and Learning Materials

Required:

Batchelor, A. (2020). *Statistics in social work: An introduction to practical applications*. Columbia University Press. [available through the UBC library]

Howell, D. C. (2016). *Fundamental Statistics for the Behavioral Sciences* (9th ed.). Cengage Learning.

Navarro, D.J., & Foxcroft, D.R. (2022). Learning statistics with Jamovi: A tutorial for psychology students and other beginners. (Version 0.75). DOI: 10.24384/hgc3-7p15 [Available from url: <http://learnstatswithjamovi.com>]

Additional resources are indicated in the Course Schedule below or located in CANVAS.

COURSE SCHEDULE

Before first class: Retrieve and read a research article (not a review paper) on a social work topic of your choice. Have the article ready for discussions during the first three sessions.

TERM 1	
SESSION 1:	September 8, 2023
TOPIC:	Overview, Basic Maths, Terms and Concepts
READINGS:	Batchelor (2020), Chapter 2 Howell (2016), Chapter 2
SESSION 2:	September 15, 2023
TOPIC:	Research Question and Design; Variables; Levels of Scale
READINGS:	Batchelor (2020), Chapter 2 Howell (2016), Chapter 2
SESSION 3:	September 22, 2023
TOPIC:	Data Management and Wrangling and Analytic Tools (jamovi®, R); Data Visualization
READINGS:	Howell (2016), Chapter 3 Navarro & Foxcroft (2022)
SESSION 4:	September 29, 2023
TOPIC:	Describing Distributions: Location and Dispersion
READINGS:	Batchelor (2020), Chapters 3 & 4 Howell (2016), Chapters 4 & 5
SESSION 5:	October 6, 2023
TOPIC:	Describing Distributions: Shape (e.g., Normal Distribution); Standardization (e.g., z-score)
READINGS:	Batchelor (2020), Chapter 4 Howell (2016), Chapter 6

SESSION 6:	October 13, 2023
TOPIC:	Correlation
READING:	Batchelor (2020), Chapter 5 Howell (2016), Chapter 9
SESSION 7:	October 20, 2023
TOPIC:	Statistical Significance Testing: Sampling Distribution, Hypothesis Testing (One sample means)
READING:	Batchelor (2020), Chapters 6 & 7 Howell (2016), Chapters 7, 8 & 12
SESSION 8:	October 27, 2023
TOPIC:	Group Differences: t-test, ANOVA
READINGS:	Batchelor (2020), Chapter 8 Howell (2016), Chapters 14 & 16
SESSION 9:	November 3, 2023
TOPIC:	Confidence Intervals, Effect Size, Statistical Power
READINGS:	Batchelor (2020), Chapter 7 Howell (2016), Chapter 15
SESSION 10:	November 10, 2023
TOPIC:	Factorial ANOVA and Repeated-Measure ANOVA
READINGS:	Howell (2016), Chapter 13, 17 & 18
SESSION 11:	November 17, 2023
TOPIC:	Chi-Square Test (nominal and ordinal variables)
READINGS:	Batchelor (2020), Chapter 8 Howell (2016), Chapter 19

SESSION 12:	November 24, 2023
TOPIC	Reliability and Validity (Conceptual Understanding)
READINGS	Thompson, B., & Vacha-Haase, T. (2000). Psychometrics is datametrics: The test is not reliable. <i>Educational and Psychological Measurement</i> , 60, 174-195.
SESSION 13:	December 1, 2023
TOPIC	Ethics in Research, Questionable Practices (e.g., p-hacking) and Open Sciences
READINGS	<p>Benjamini, Y. (2020). Selective inference: The silent killer of replicability. <i>Harvard Data Science Review</i>, 2(4). https://doi.org/10.1162/99608f92.fc62b261</p> <p>Flake, J. K., & Fried, E. I. (2020). Measurement Schmeasurement: Questionable measurement practices and how to avoid them. <i>Advances in Methods and Practices in Psychological Science</i>, 3(4), 456–465. https://doi.org/10.1177/2515245920952393</p> <p>Hussey, I., & Hughes, S. (2020). Hidden Invalidity Among 15 Commonly Used Measures in Social and Personality Psychology. <i>Advances in Methods and Practices in Psychological Science</i>, 3(2), 166–184. https://doi.org/10.1177/2515245919882903</p>
TERM 2	
SESSION 1:	January 12, 2024
TOPIC:	Review of Term 1 and Simple Linear Regression
READING:	Batchelor (2020), Chapter 9 Howell (2016), Chapter 10
SESSION 2:	January 19, 2024
TOPIC:	Multiple Linear Regression 1 (basic concepts)
READING:	Batchelor (2020), Chapter 9 Howell (2016), Chapter 11
SESSION 3:	January 26, 2024

TOPIC:	Multiple Linear Regression 2 (results interpretation)
READING:	Howell (2016), Chapter 11
SESSION 4:	February 2, 2024
TOPIC:	Categorical Independent Variable (ANOVA via regression)
READING:	Howell (2016), Chapter 11
SESSION 5:	February 9, 2024
TOPIC:	Multiple Categorical Independent Variables
READING:	Howell (2016), Chapter 11
SESSION 6:	February 16, 2024
TOPIC:	Continuous and Categorical Independent Variables (ANCOVA)
READING:	Howell (2016), Chapter 11
MIDTERM BREAK, no session February 23, 2024	
SESSION 7:	March 1, 2024
TOPIC:	Moderation Analysis
READING:	Howell (2016), Chapter 11
SESSION 8:	March 8, 2024
TOPIC:	Variance Partitioning (commonality analysis)
READING:	Howell (2016), Chapter 11

SESSION 9:	March 15, 2024
TOPIC:	Mediation Analysis (path model)
READING:	Howell (2016), Chapter 11
SESSION 10:	March 22, 2024
TOPIC:	General Linear Model (big umbrella)
READING:	Howell (2016), Chapter 11
SESSION 11:	March 29, 2024
TOPIC:	Evaluate Cumulative Evidence from Meta-Analysis and Systematic Review
READING:	Howell (2016), Chapter 21
SESSION 12:	April 05, 2024
TOPIC:	A Brief Introduction to Mixed-Methods
SESSION 13:	April 12, 2024
TOPIC:	Final Project Presentation and Wrap-up

Assignments

OVERVIEW

Assignments	Topics	Due	Points /100
Term 1			
No.1	Levels of Scales and Research Design	Sep 29, 2023	10
No.2	Descriptive Statistics	Oct13, 2023	10
No.3	Correlation	Oct 27, 2023	10
No.4	t-test and ANOVA	Nov17, 2023	10
No.5	Complete Tri-Council (2022) on-line tutorial module	Self-paced <u>Nov 24, 2023</u>	5
Term 2			
No.6	Multiple linear regression (continuous IV)	Feb 02, 2024	12.5
No.7	Multiple linear regression (categorical IVs)	Feb 16, 2024	12.5
No.8	Multiple linear regression (mixed types of IVs)	Mar15, 2024	15
No.9	Journal Review Report (written outline)	Apr 01, 2024	5
	Journal Review Report (presentation)	Apr 12, 2024	10
Total			100

In-Class Quiz (Bonus Points)

Quizzes	Topic	Date (Tentative)	Points /25
Term1			
No1	descriptive statistics	Oct 20, 2023	5
No2	t-test and ANOVA	Nov 10, 2023	5
Term2			
No3	Multiple linear regression (basic concepts)	Feb 02, 2024	5
No4	Multiple linear regression (results interpretation)	Mar 01, 2024	5
No5	commonality analysis	Mar 15, 2024	5
Total			<u>25</u>

NOTE

ASSIGNMENT 5: Self-paced; Hard due date: November 24, 2023

Ethics Tutorial.

This assignment is aligned with *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2)* guidelines and UBC ethics review boards' expectations that all people applying for ethical review and working with data complete the tutorial. A certificate is provided upon successfully completing this tutorial. Submit the certificate by uploading an electronic copy into Canvas. This tutorial must be completed before November 24, 2023.

Complete the on-line tutorial course at: <https://tcps2core.ca/welcome>

ASSIGNMENT 9: Journal Review Report

Written Outline: April 1, 2024 (Last Appointment Day)

Final Presentation: April 12, 2024 (Presentation Day)

For this assignment, you will work in pairs to evaluate a journal article and present your review comments. You will need to submit two deliverables: a written outline of your presentation and a final presentation of your review. The purpose of this assignment is to enhance your critical thinking and communication skills in the context of academic research.

Written Outline Assignment

For the written outline of your group presentation, you need to identify and explain the "five most significant issues" of the journal article you are reviewing. These points should focus on research methods, reporting practice and result interpretation. You can also include a "storyboard" of each slide, showing how you will present the information in a logical and coherent way. The written outline is not final and can be modified for the actual presentation. The main criteria for grading the outline are completeness, accessibility and clarity.

Final Presentation Assignment

Your final presentation should include a slide titled "5 Most Significant Issues" that summarizes the main methodological problems you found in the journal articles. You should also explain why these problems concern you the most and how they can be solved or avoided. You should cite the sources that support your arguments and solutions. On your title slide or your second slide, please add this notice: "(c) Copyright, [your name], 2024. Not to be Reproduced or Disseminated to Others Without the Prior Written Permission of the Copyright Holder." Your presentation will be evaluated based on completeness, technical accuracy, accessibility, clarity, and the use of outside references. You should aim for a presentation time of 10 to 15 minutes.

Supports:

If you need any assistance with your presentations, I am happy to help you. I strongly recommend that you meet with me to review your draft presentation and get some feedback. This is not mandatory. If you are interested, please schedule a meeting with me on Fridays before April 1. Please do not procrastinate on your presentations, as they are an important part of your assessment.

Assignment Submission Process

This course requires you to complete 9 homework assignments outside of class. These assignments (1 to 4 and 6 to 8) will mainly involve calculation and interpretation of data and analytical results, but may also have some comprehension-check, definitional, and multiple-choice problems. You need to submit all assignments to Canvas by 11:59 pm on the due date. Completing all assignments is necessary to get a final grade in this course.

You can submit each assignment up to three times. The final grade will be the highest score among the three attempts.

If you need an extension for any assignment, please notify the instructor at least one week before the deadline. The extension cannot exceed 7 days past the original deadline. Otherwise, you may not receive an extension unless you have a medical or reasonable excuse. Late submission with valid reasons will receive 80% of graded scores. Late submission without any excuse will receive 50% of graded scores.

In-class Bonus Quiz

In this course, you will have the opportunity to earn extra points by taking 5 bonus quizzes in class. These quizzes are not available online or outside the class time.

Your final grade for the course will be based on the sum of your assignment scores and your bonus quiz scores.

SCHOOL/COURSE POLICIES

Learning Resources

UBC Learning Commons has a variety of tools and information such as: borrowing equipment, academic integrity (**APA Citation Guide**), writing support, skills for class, skills for life and academic support to assist students in their learning. <https://learningcommons.ubc.ca/>

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work; nor should you help others to do the same. For example, it is prohibited to: share your past assignments and answers with other students; work with other students on an assignment when an instructor has not expressly given permission; or spread information through word of mouth, social media, websites, or other channels that subverts the fair evaluation of a class exercise, or assessment.

Academic Concession

To determine if you're eligible for an Academic Concession, you can check the criteria outlined in the [UBC Calendar](#). This includes [Medical circumstances, Compassionate grounds, or Conflicting responsibilities](#). Some examples include sudden illness, injury, death in the family, or mental health crises. You should first contact your instructor to apply for an Academic Concession. Alternatively, and as may be required, you can contact the Program Advisor, Christine Graham. If you need to request concurrent academic concessions for multiple courses, you should request them directly from Christine Graham. If you require more information about concessions, please don't hesitate to contact Christine Graham (Christine.Graham@ubc.ca).

Accommodation of Students

The University accommodates students with disabilities who have registered with the Centre for Accessibility. Students, who will require accommodation for attendance due to disability, are encouraged to inform the instructor and, if necessary, to contact the Centre for Accessibility, preferably not later than the first week of class. The School of Social Work also permits accommodations for religious observances and Indigenous cultural duties requested by students (see [UBC Policy J-136](#)). Students are expected to inform their instructor if they require accommodation on such grounds. Students who wish to be accommodated for unavoidable absences due to varsity athletics, family obligations, or other similar commitments must notify their instructors in writing at least two weeks in advance, preferably earlier. This reflects expectations for professional social workers in their place of employment.

Attendance

The School considers class attendance to be an essential component of integrated learning in professional social work education. Therefore, regular attendance is *required* in all social work courses. Instructors may count repeated late arrivals or early departures as an absence, and a meeting should be set up to discuss this with the student. ([Student Handbook](#)).

Other school policies can be accessed through the [School of Social Work student handbook](#).

Names and Gender Pronouns

At the School of Social Work, we are committed to providing an inclusive learning environment for all our sexual and gender diverse students, faculty, staff and community members. If you are comfortable sharing with us, please provide the pronouns you would like to use in this space. If you have questions or need support, please also be aware that *the Equity & Inclusion Office at UBC* can provide information and advocacy to ensure that all of your instructors use the name/pronouns you use. For more information: <https://equity.ubc.ca/>

Equity and Respect

In May 2013, the UBC School of Social Work Council approved an Equity Action plan aimed at an equitable learning and working environment and the creation of accountability measures for monitoring the implementation of this plan. A key element in attaining this goal is ensuring that instructors and students are committed to maintaining a classroom environment free of discrimination and racism and welcoming and respecting different worldviews, ways of knowing and social locations.

Support

During the term, I will do my best to offer support if I am concerned about your academic performance or wellbeing. I also encourage you to contact me or your academic advisor if you need assistance. In addition, I may identify concerns using the UBC Early Alert system which provides students with the earliest possible connection to resources like academic advising, financial advising, counseling, or other support services to help you get back on track. Any information transmitted through early alert is treated as confidential (see earlyalert.ubc.ca).

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available at:
<https://senate.ubc.ca/policies-resources-support-student-success>

Retaining Assignments

Students should retain a copy of all submitted assignments (in case of loss) and should also retain their marked assignments in case they wish to apply for a Review of Assigned Standing. Students have the right to view their marked examinations with their instructor, providing they apply to do so within a month of receiving their final grades. This review is for pedagogic purposes. The examination remains the property of the university.

Learning Analytics

Learning analytics includes the collection and analysis of data about learners to improve teaching and learning. This course will be using Canvas. Canvas can capture data about your activity and provide information that can be used to improve the quality of teaching and learning. In this course, I plan to use analytics data to: view overall class progress; review statistics on course content being accessed to support improvements in the course; assess your participation in the course.

Copyright

All materials of this course (course handouts, lecture slides, assessments, course readings, etc.) are the intellectual property of the Course Instructor or licensed to be used in this course by the copyright owner. Redistribution of these materials by any means without permission of the copyright holder(s) constitutes a breach of copyright and may lead to academic discipline. It is not permitted to record classes, unless permission has been granted by the instructor.

GRADING CRITERIA

Letter Grade	Percent Range	Mid-Point
A+	90-100	95
A	85-89	87
A-	80-84	82
B+	76-79	77.5
B	72-75	83.5
B-	68-71	69.5
C+	64-67	65.5
C	60-63	62.5
C-	55-59	57
D	50-54	52
F	0-49	