	THE UNIVERSITY OF BRITISH COLUMBIA
FACULTY OF Arts UBC	**School of Social Work**
	Course Outline - SOWK 553C

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.

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.

Year/Term	2019 / Summer T1 & T2; May 7 to August 1
Course Title	SOWK 553C; **Quantitative Methods in Social Work Research**
Course Schedule	Tuesday & Thursday, 5:00 p.m. to 8:00 p.m.
Course Location	Jack Bell Room 224

Instructor	**Office Location**	**Office Phone**	**e-mail address**
Sheila Marshall	336	822-5672	Sheila.Marshall@ubc.ca
Office Hours	By appointment		

COURSE OBJECTIVES:

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 GOALS:

- Familiarize students with a variety of approaches to social work research.

- Introduce students to processes, methods and issues in qualitative and quantitative inquiry.

- Strengthen abilities to critically read and evaluate research designs and findings of quantitative and qualitative studies.

- Facilitate skills in identifying questions relevant to social policy, social service programs and social work practice that can be addressed using quantitative designs.

- Enhance skills in identifying ethical issues in conducting systematic inquiry, particularly in relation to marginalized groups.

REQUIRED COURSE TEXTS:

Gorard, S. (2013). *Research design: Creating robust approaches for the social sciences*. Los Angeles, CA: Sage.
Field, A. (2016). *An adventure in statistics: The reality enigma*. Thousand Oaks, CA: Sage Publications.

See course outline below for additional required readings.

EVALUATION:

Assignment 1: complete Tri-Council on-line tutorial module
Assignment 2: Peer review of a manuscript: 10%
Assignment 3: Assessment of a measure: 20%
Mid-term review (take home essay questions): 20%

Assignments 4 to 8 are elements of a small research project.
Assignment 4: 5% Codebook for your data set
Assignment 5: 5% Methods section of the manuscript
Assignment 6: 5% Plan for analysis
Assignment 7: 5% Description of preliminary analyses of data, checking assumptions, results of analysis
Assignment 8: 5% Interpretation of results; description of limitations, implications

Assignment 9: 25% Decision Tree

OUTLINE AND READINGS:

Week 1a: **Getting started: Why research? What is research design?**

Readings: Chapter 1, Field
               Chapters 1 and 2, Gorard

Week 1b: **Researchable questions**

Readings: Chapters 3 and 4, Gorard
               Bring to class an empirical research article on a social work topic of your choice

Week 2a: **Warranting claims**

Readings: Chapter 5, Gorard

Week 2b: **Ethics in research**

Readings: Chapter 13, Gorard

Whetung, M. (Nishnaabeg), & Wakefield, S. (2018). Colonial conventions: Institutionalized research relationships and decolonizing research ethics. In E. Tuck, K.W. Yang, & L.T. Smith (Eds.) *Indigenous and Decolonizing Studies in Education* (pp. 168-180). New York: Routledge.

TCPS 2—2014 *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (skim chapters 12 and 13) available through:
http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/

Complete the on-line tutorial course at:
http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/
This tutorial must be completed prior to being given access to anonymized data for practice during class and for class assignments.

Week 3a: **Constructs/variables, measurement, unit of analysis**
                    Lab: introduction to SPSS

Readings: Field, sections 2.31 to 2.3.4 (inclusive)

Week 3b: **Assessment & test validity**

Readings: Bandalos, D.L. (2017). Measurement Theory and Applications for the Social Sciences. New York, NY: Guilford Press. Chapter 11 only.

Week 4a: **Assessment & test validity continued**

Readings: Messick, S. (1995). Validity of psychological assessment: Validation of inferences from persons' responses and performances as scientific inquiry into score meaning. *American Psychologist, 50*, 741-749.

Week 4b: **Reliability evidence**

                    Lab: correlation and Cronbach's alpha

Readings: Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and application. *Journal of Applied Psychology, 78,* 98–104.

                Hallgren, K. A. (2012). Computing inter-rater reliability for observational data: an overview and tutorial. *Tutorials in Quantitative Methods for Psychology*, *8*, 23-34.

Week 5a: **Sampling**

Readings: Chapter 6 and 7, Gorard

Week 5b: **Timing and sequence in design**

Readings: Chapter 8, Gorard

                Wu, A. D., & Zumbo, B. D. (2008). Understanding and using mediators and moderators. *Social*

Indicators Research: An International Interdisciplinary Journal for Quality of Life Measurement, 87, 367–392.

Week 6a: **Controlled interventions; alternatives to trials**

Readings: Chapters 9 and 10, Gorard

Week 6b: **Challenges for validity**

Readings: Chapter 11, Gorard

Week 7:   **Midterm review of your learning, take home essay, Due Week 8a.**

Week 8a: **Discussion: Descriptive statistics: Central Tendency, Variability**
      Lab: Cleaning data

Reading: Field, section 2.2 and Chapters 3, 4, and 5

Week 8b: **Discussion: Data management**
      Lab: Setting up codebooks

Reading: Burchinal, M. R. & Neebe, E. (2006). I. Data management: recommended practices.
      Monographs of the Society for Research in Child Development, 71: 9–23.
      doi: 10.1111/j.1540-5834.2006.00402.x

Week 9a: **Discussion: Using Z-scores, Probability,**
      Lab: missing values

Reading: Field, Chapters 6, 7, sections 8.1, 8.2

Week 9b: **Discussion: hypothesis testing**
      Lab: Constructing scale scores

Reading: Field, section 9.1.1, Chapters 10, 11

Week 10a: **Discussion: Relationships - Chi-Square tests and correlations**
      Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, Chapter 13 but skip 13.3.6

Week 10b: **Discussion: Regression**
      Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, Chapters 12 and 14

Week 11a: **Discussion: Regression continued**
      Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, Chapters 12 and 14

Week 11b: **Discussion: t-tests (independent samples & related samples)**
                   Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, Chapter 15 except 15.5.2 and 15.5.3

Week 12a: **Discussion: Analysis of Variance (ANOVA)**
                   Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, section 16.1 to 16.5

Week 12b: **Discussion: Analysis of Variance (ANOVA) within- subjects (repeated measures)**
                   Lab: testing assumptions, conducting analyses, interpreting results

Reading: Field, section 16.5

Week 13a: **Discussion: Tests for ordinal data (alternatives to t-tests & ANOVA)**
                   Lab: conducting analyses, interpreting results

Week 13b: Wrapping up

COURSE POLICIES [attendance, participation, academic dishonesty]:

Excerpt from the UBC calendar:
Regular attendance is expected of students in all their classes (including lectures, laboratories, tutorials, seminars, etc.). Students who neglect their academic work and assignments may be excluded from the final examinations. Students who are unavoidably absent because of illness or disability should report to their instructors on return to classes.

The University accommodates students with disabilities who have registered with the Disability Resource Centre. The University accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let your instructor know in advance, preferably in the first week of class, if you will require any accommodation on these grounds.   Students who plan to be absent for varsity athletics, family obligations, or other similar commitments, cannot assume they will be accommodated, and should discuss their commitments with the instructor before the drop date.

It is recommended that students retain a copy of all submitted assignments (in case of loss) and should also retain all 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.

Academic Dishonesty:
Please review the UBC Calendar "Academic regulations" for the university policy on cheating, plagiarism,

and other forms of academic dishonesty. Also visit www.arts.ubc.ca and go to the students' section for useful information on avoiding plagiarism and on correct documentation.

ASSIGNMENTS
Submitting Assignments-
Students may submit assignments on hard copy to the instructor. Assignments must be received by the beginning of the class period on the date due.

Return of marked student assignments -
Instructors coordinate the return of marked assignments. The instructor returns the paper to students in class. Marked papers not returned by any of the options above will be held by the instructor. Marked papers cannot be put in a box outside the instructor's office or distributed from the main office.

Late assignments-
Failure to submit an assignment by the due date will result in a mark of 0 for the assignment. Papers submitted on the due day but after the class period will be considered late.

GRADING CRITERIA:

Letter Grade	Percent Range	Mid-Point	
A+ A A-	90-100 85-89 80-84	95 87 82	Represents work of exceptional quality. Content, organization and style are all at a high level. Student demonstrates excellent research and reference to literature where appropriate. Also, student uses sound critical thinking, has innovative ideas on the subject and shows personal engagement with the topic.
B+ B B-	76-79 72-75 68-71	77.5 83.5 69.5	Represents work of good quality with no major weaknesses. Writing is clear and explicit and topic coverage and comprehension is more than adequate. Shows some degree of critical thinking and personal involvement in the work. Good use of existing knowledge on the subject.
C+ C C-	64-67 60-63 55-59	65.5 62.5 57	Adequate and average work. Shows fair comprehension of the subject, but has some weaknesses in content, style and/or organization of the paper. Minimal critical awareness or personal involvement in the work. Adequate use of literature.
D	50-54	52	Minimally adequate work, barely at a passing level. Serious flaws in content, organization and/or style. Poor comprehension of the subject, and minimal involvement in the paper. Poor use of research and existing literature.
F	0-49		Failing work. Inadequate for successful completion of the course or submitted beyond final date of acceptance for paper.

Assignment descriptions:

All written assignments should follow APA format: 1" margins, 12-point font, double spacing, and APA style referencing. Failure to follow guidelines will result in the paper not being assessed until it has been reformatted according to guidelines.

Assignment 1: Due by Week 3b (May 23)

Submit a certificate of successful completion of the TCPS tutorial. The tutorial is accessed at
http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/
This assignment is aligned with TCPS 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 attaching an electronic copy to an email addressed to the instructor.

Assignment 2: Peer review of an article. Due Week 6b (June 14)

Bring to class in Week 1b an empirical research article on a social work topic of your choice. Over the following weeks, you will use the article as a practice tool to evaluate research designs.

In this assignment, your evaluation of the research article will become a review of the quality of the research for front-line social workers. You elect how the information is presented to your peers. For example, you might use an essay format, oral presentation, or a news format similar to what a science reporter might generate.

Using Gorard, evaluate the following (at a minimum – you might find other topics in the text to cover):
   a) Is the research question researchable?
   b) Are the research claims warranted?
   c) Does the design match the research question?
   d) Is the sample appropriate?
   e) Is the data collection process appropriate for the question and research design?
   f)   What challenges for validity of design do you notice?

Ensure your critique is accessible to a front-line social work practitioner audience. The output of this assignment will be marked according to:

   a) Thoroughness of your coverage of all aspects of the research process
   b) Demonstration of the nuanced nature of evaluation of research (i.e., there is no perfect design but it is unlikely to be all bad either)
   c) Clarity of your position regarding the quality of the research
   d) Ability to communicate effectively, efficiently, and appropriately

Assignment 3: Assessment of a measure. Due Week 8a (June 25)

Select an indicator used to assess a construct used in social work research.
Do a literature search on this measure for:

   a) empirical tests contributing to reliability and validity evidence
   b) how the measure is used in research more generally.

In essay format, use your literature search and course readings on reliability and validity to address the following:

1) Begin the paper with an argument for investigating existing reliability and validity evidence for the measure. Introduce the construct the measure is supposed to measure, including the version (i.e., is this a first, second, or third edition?).

2) How is this measure administered and scored in extant studies? How are scores calculated?

   How much training/cost/time is required to administer the scale? Who can administer the measure?

3) Define validity and describe what it means to collect validity evidence. Describe what has been done to generate validity evidence for the measure you investigated in your literature search.

   Include an examination of the instructions given for the scale and/or the implementation procedures. Evaluate any strengths or weaknesses you discover.

   How would you judge this instrument based on this information?
   Are there other things you would do to generate validity evidence?

4) Define reliability and then describe what has been done to generate reliability evidence for this instrument.

   How would you judge the instrument based on the information you collected?
   Are there other things you would do to generate reliability evidence?

5) What does the scoring imply about people and the <u>construct</u> purported to be assessed?

6) Summarize your findings on the evidence for the instrument's reliability and validity and generate a conclusion about the viability of using the instrument in social work research.

Assignments 4 to 8 are elements of a research project. You will select a research question or hypothesis from a list provided in class. You will be provided with a data set you will use to use to answer the question or hypothesis.

Assignment 4: (due Week 10a, July 9th)
<u>Codebook</u> for your data set following the example in Burchinal and Neebe (2006). You will need to research the background information on variables to document the source of variables and any other pertinent information. You will also need to conduct analyses to document the reliability of scales in the data set.

Assignment 5: (due Week 11a, July 16th)

Methods sections of journal articles include: sample description, measures, and procedures. This assignment should look like something out of the APA manual or a tier-1 journal. Use (a) the data set to describe the sample, and (b) codebook to write the measures section. Information about procedures will be provided with your data set.

Assignment 6: (due Week 12, July 25th)

Plan for analysis should describe what technique you intend to use to answer the research question and why that is the technique of choice. Link your choice of technique very clearly to the hypothesis or question and the type of data you are using to answer the question.

Assignment 7: (due week 13a, July 30th)
   A) Description of preliminary analyses of data, including tables, and checking of assumptions.
   B) Results of analysis should include reports in text or in tables but not both.

Assignment 8: (due Week 13b, August 1st)

Interpretation of results; description of limitations of the study design, measures used in the study, description of strengths of the study design and measures, implications for future research.

Assignment 12: (due August 8th)

Decision Tree. Design a decision tree which includes all of the statistical strategies (including descriptive statistics) covered in this course. Include decisions regarding:
   a) Type of data,
   b) Type of strategy, and the assumptions of data when using the strategy
   c) When to change strategies if assumptions are not met.