HST250 – Introduction to Research Methods in Health Studies

2021 Fall Term

University College

Course Outline

Class Schedule: Tuesdays 1:10-4:00pm **Location:** University College, room 161

Instructor: Daniel Schluter, PhD (<u>daniel.schluter@utoronto.ca</u>) Open Office Hours: Tuesdays 9:30am-12:30pm, Thursdays 1:30-4:30pm Office Location: UC, room 356 or via Zoom link Graduate Teaching Assistant: Donna Plett, MSc, PhD cand., Institute of Health Policy, Management & Evaluation, Dalla Lana School of Public Health, UofT (*donna.plett@mail.utoronto.ca*)

<u>Course Description</u>: This course provides students with a basic understanding of research methods for undertaking studies on health-related topics, including a range of study designs and various modes of data collection. *Emphasis is on <u>the logic of research</u>* and on the usefulness of scientific methods of data gathering and analysis for guiding individuals' healthy life-choices, for treatment of health conditions, and for the formulation of local, national, and international health policy. The course covers empirical research-design principles for quantitative and qualitative studies, methods of collecting and recording data, assessment of error and bias, and guidelines for evaluating the veracity of published and unpublished studies. Methods included deal with issues of appropriate and accurate measurement, probability and non-probability sampling, primary and secondary data collection techniques, basic descriptive and inferential statistical procedures, and research ethics. *Except for the first class, each class meeting will consist of a lecture on the topic specified in the table below, with comments and questions encouraged throughout, as well as review of homework assignments covering material from the previous class.* Attendance is expected at all class meetings.

<u>Readings:</u> Rather than using a single textbook from which students are to read important material related to each week's lecture and discussion topics, chapters from a selection of research-methods textbooks will be assigned —all of which will be posted on the UofT Quercus course website for HST250 (<u>https://q.utoronto.ca/</u>).

<u>Preparation</u>: In order to get the most out of lectures, required *readings should be done <u>before</u> each class*. Students should be prepared to ask questions and/or comment about any issues discussed in the readings and lectures. My per-spective/presentation will not always agree with those of the readings' authors and I expect students' views to differ as well, so students should be ready for discussion/deliberation and to engage in research-related "thought exercises".

Evaluation: 40% of the course grade will come from scores on 10 of 12 assignments for which students must read and analyze published health-research studies related to the research issues considered in each class. All assignments will be posted to the HST250 Quercus course website and must be submitted on-line <u>before the next class</u> (by 10:10am) with a penalty of .5pt per day for lateness. A mid-term exam with true/false, multiple-choice, and matching questions counting for 25% of the course grade will be held during the middle hour of class on Tuesday 26 October. A final examination constituting 35% of the grade will be held during the exam period (10-21 December), consisting partly of true/false, multiple-choice, and matching questions and partly of short-answer questions similar to the homework assignments.

DATE	LECTURE TOPICS	REQUIRED READINGS & ASSIGNMENTS	
14 Sep	What is "health"? Why/How should we study it?	None	Assignment 01 (due 21 Sep)
21 Sep	Seeking Knowledge Through Research	Neuman & Robson (2020) "Doing Social Research" Ch.01 in: Basics of Social Research: Qualitative and Quantitative Approaches, 4th Canadian Edition (Pearson Canada) Jackson & Verberg (2007) "Explaining" Ch.02 in: Methods: Doing Social Research, 4th Edi- tion (Toronto, ON, Canada: Pearson Education Canada / Prentice Hall, pp.23-46)	Assignment 02 (due 28 Sep)
28 Sep	Measuring: Conceptualization & Operationalization	 Babbie (2008) "Conceptualization, Operationalization, and Measurement" Ch.05 in: The Basics of Social Research, 4th Edition (USA: Thompson Wadsworth, pp. 130-167) Streiner (2014) "Measurement" Ch.07 in: Bassil & Zabkiewicz, Eds. Health Research Methods - A Canadian Perspective (Don Mills, ON, Canada: Oxford University Press, pp.119-142) 	Assignment 03 (due 05 Oct)
05 Oct	Sampling: Representation & Generalization	 Bryman <i>et al.</i> (2012) "Sampling" Ch.12 in: Social Research Methods, 3rd Canadian Edition (Don Mills, ON, Canada: Oxford University Press Canada, pp.208-231) Jacobsen (2012) "Primary Studies: Selecting a Sample Population" Ch.16 in: Introduction to Health Research Methods: A Practical Guide (Mississauga, ON, Canada: Jones & Bartlett Learning, pp.105-115) 	Assignment 04 (due 12 Oct)
12 Oct	Bias in Research: Its Sources & Types	 Jackson & Verberg (2007) "Bias" Ch.10 in: Methods: Doing Social Research (Op. Cit., pp.280-302) Althubaiti (2016) "Information bias in health research" Journal of Multidisciplinary Healthcare, 9:211-217 	Assignment 05 (due 19 Oct)
19 Oct	Data Analysis: Descriptive & Inferential Statistics	 Jackson & Verberg (2007) "A Statistics Primer" Ch.08 in: Methods: Doing Social Research (Op. Cit., pp.212-249) Jacobsen (2012) "Comparative Statistics" Ch.27 in: Introduction to Health Research Methods (Op. Cit., pp.197-210) 	Assignment 06 (due 26 Oct)
26 Oct	Middle Hour of Class	Mid-Term Exam (11:am-12:pm)	



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26 Oct	<i>Last Hour of Class</i> Research Ethics: Confidentiality, Consent, & Conflicts of Interest	 Kuzmanović & Benetar (2014) "Applied Ethics in Health Sciences Research" Ch.05 in: Bassil & Zabkiewicz, Eds. <i>Health Research Methods (Op Cit.</i>, pp.81-100) Bouma <i>et al.</i> (2009) "Ethics in Human Research" Ch.09 in: <i>The Research Process</i>, 2nd Canadian Edition (Don Mills, ON, Canada: Oxford University Press, pp.142-159) 	Assignment 07 (due 02 Nov)
02 Nov	Survey/Interview Research: Questions, Categories, & Coding Responses	 Babbie (2008) "Survey Research" Ch.09 in: <i>The Basics of Social Research</i>, (Op. Cit., pp.268-311) Jacobsen (2012) "Surveys and Interviews" Ch.19 in: <i>Introduction to Health Research Methods</i> (Op. Cit., pp.139-145) 	Assignment 08 (due 16 Nov)
09 Nov	Reading Week	– No Classes –	
16 Nov	Experimental Research: Conditions, Control, & Comparisons	 Jacobsen (2012) "Experimental Studies" Ch.13 in: Introduction to Health Research Methods (Op. Cit., pp.77-89) Tammemägi (2014) "Overview of Study Designs in Health" Ch.06 in: Bassil & Zabkiewicz, Eds. Health Research Methods (Op. Cit., pp.101-117) Streiner & Norman (2009) "Practical Biostatistics: Randomized, controlled trials" Community Oncology, Vol.6, No.2, pp.83-85 	Assignment 09 (due 23 Nov)
23 Nov	Qualitative Research: Interviewing & Observation for Ethnography, Case Study, & Phenomenology	 Hole (2014) "Qualitative Research" Ch.09 in: Bassil & Zabkiewicz, Eds. Health Research Methods (Op Cit., pp.165-189) González & Forister (2016) "Qualitative Research" Ch.08 in: Forister & Blessing, Eds. In- troduction to Research and Medical Literature for Health Professionals, 4th Ed. (Burling- ton, MA, USA: Jones & Bartlett Learning, pp.97-109) 	Assignment 10 (due 30 Nov)
30 Nov	"Comparative" Research, "Evaluation" Research, & "Knowledge Translation" Research (KTE)	 Jackson & Verberg (2007) "Nonreactive & Comparative Research" Ch.05 in: Methods: Doing Social Research (Op. Cit., pp.125-144) Hawe & Potvin 2009 "What Is Population Health Intervention Research?" Canadian Journal of Public Health, 100(1):18–114 Cooper et al. (2013) "Research Synthesis and Meta-Analysis" in: The SAGE Handbook of Applied Social Research Methods (Thousand Oaks, CA, USA: SAGE Publications) 	Assignment 11 (due 07 Dec)
07 Dec	Epidemiological Research: Surveillance, Incidence vs. Prevalence; Quarantine, & Control	 Schneider (2014) "Epidemiologic Principles and Methods" Ch.5 in: Introduction to Public Health, 4th Edition (Burlington, MA, USA: Jones and Bartlett Publishers, pp.65-77) Martin (2005) "Epidemiological study designs for health care research and evaluation" Ch.06 in Bowling & Ebrahim, Eds. Handbook of Health Research Methods: Investigation, Measurement and Analysis (New York, NY, USA: Open University Press, pp.98-163) 	Assignment 12 (due 14 Dec)
10-21 Dec	Exam Period – No Classes	Final Exam: to be scheduled	

<u>Academic Integrity</u>: Intellectual honesty and academic integrity are fundamental values of learning and scholarship at UofT and cases of academic misconduct are taken very seriously. Participating honestly, responsibly, and fairly in our scholarly community ensures that your degree is valued and respected as a true signifier of your individual achievement. *You are expected to know and follow university rules*. UofT's *Code of Behaviour on Academic Matters* (<u>http://www.governingcouncil.utoronto.ca/policies/behaveac.htm</u>) outlines the behaviours that constitute academic misconduct, the processes for addressing an academic offence, and the penalties that may be imposed. Be familiar with the contents of this Code. Not knowing the rules is not an excuse. Potential offences include, but are not limited to...

In Papers & Assignments:

- using someone else's ideas or words without appropriate acknowledgement;
- submitting your own work in more than one course without the permission of all instructors;
- making up facts, sources, or references;
- obtaining or providing unauthorized assistance on any assignment (including working together on assignments that are supposed to be individual work).

On Tests & Exams:

- using or possessing any unauthorized aid, including a cell phone;
- looking at someone else's answers;
- *letting someone else look at your answers;*
- *misrepresenting your identity (someone else taking your exam);*
- *submitting an altered test for re-grading.*

Misrepresentation:

- *falsifying or altering any documentation required by the university, including doctor's notes;*
- falsifying institutional documents or grades.

All suspected cases of academic dishonesty will be investigated following the procedures outlined in the Code. For more detailed information on your rights and responsibilities as a student, see the *UofT's Student Resource Page* (<u>https://www.academicintegrity.utoronto.ca/</u>). If you have questions about what is or is not permitted in this course specifically, simply ask the instructor.

Help & Support: If you need help with your work for this course, consult the course instructor and/or Teaching Assistant. *Extensions may be granted in cases of illness or emergencies, with appropriate documentation* (see http://www.illnessverification.utoronto.ca/Frequently-Asked-Questions.htm). Consult your college registrar if you have ongoing difficulties that prevent you from completing your coursework satisfactorily. If you require accommodation for a disability or long-term illness, or have accessibility concerns, contact the Office of Accessibility Services (https://studentlife.utoronto.ca/task_levels/accessibility-and-academic-accommodations/). If you need help with your academic work generally, with study skills, or with writing, you may seek help from the following campus resources: the Academic Success Centre (https://studentlife.-utoronto.ca/task_levels/access/); the UofT Writing Website (https://www.writing.utoronto.ca/) and University College Writing Centre (https://www.uc.utoronto.ca/writing-centre). If you need help with your registrar.

