School of Health Studies

Western HealthSciences

Health Sciences 2800: Health Sciences Research Methods

Fall & Winter | 2025-2026

Version 1.0

Prerequisite(s): Health Sciences 1001A/B and Health Sciences 1002A/B. Anti-requisite(s): Health Sciences 2801A/B, Psychology 2802F/G, Psychology 2830A/B, Psychology 2840F/G, the former Psychology 2800E, the former Psychology 2820E.

Note: Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Course Information

Instructors:

Dr. Afshin Vafaei	Dr. Anita Kothari	Dr. Lesley Gittings	Dr. Treena Orchard
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Office Hours: By appointment
Teaching Assistants: TBA
Other information: 3 hours
Course weight: 0.50

Land Acknowledgement

We acknowledge that Western University is located on the traditional territories of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Chonnonton Nations, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum. This land continues to be home to diverse Indigenous Peoples whom we recognize as contemporary stewards of the land and vital contributors of our society. Acknowledging this is part of reconciliation, along with including Indigenous experiences and knowledge into the curriculum.

Equity Statement:

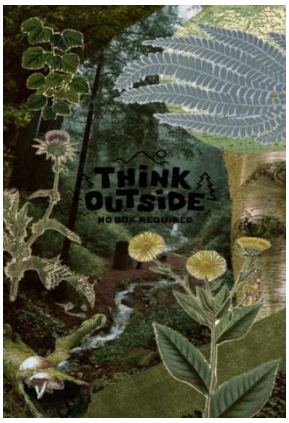
Understanding the challenges and complex resilience among other racialized and equity denied groups and communities is essential in all of our classes, which examine equity, diversity, including, decolonization, and accessibility in meaningful ways.

Accessibility Acknowledgement

Meaningful ways to incorporate equity into the student experience are important to the School of Health studies. To that end, we honour all manner of differences inherent within the student population and incorporate accessible options for inclusion to the best of our abilities in each course offering.

Course Description

This course provides an introduction to research in the Health Sciences which is critical for student success in upper year courses and for future career paths. Students will learn about the whole research process, from formulating research questions, study design, methodologies and methods, data collection, analysis, and knowledge translation. Attention will be provided to basic qualitative and quantitative methods, and their application to healthcare settings.



Learning Objectives

1) Identify and describe the core characteristics and principles of health research;
2) Explain key concepts about ontology, epistemology and research traditions;
3) Describe, plan and apply diverse methods of collecting data;
4) Describe and apply methods of data analysis;
5) Describe and apply approaches to knowledge mobilisation for impact; and
6) Identify core issues in epistemic justice.

Course Format and Timetable (**subject to change*)

This class is divided into sections that reflect methodologies that fall within quantitative, qualitative, and applied contexts as well as insights regarding pre-research preparation, restorative justice, Indigenous perspectives, arts-based approaches, and knowledge mobilization. Each professor will lead a portion of the course that pertains to their area of specific expertise, with some overlap to be expected. Each class is 3 hours long with a break at the half-way point. There are no tutorials, but we will include in-class activities or invite guest speakers to support multiple ways of learning.

Week	Date(s)	Topic	Reading /Assessment
1	September 4	Introductions; Course Outline Review & Expectations; The Health Research Process	Jacobsen 2021: C.1 TBA
2	September 11	Planning a Research Project (1)	Jacobsen 2021: C.2, 4 TBA
3	September 18	Planning a Research Project (2)	TBA
4	September 25	Quantitative Data collection, Sampling, Questionnaire Design, Coding	Jacobsen 2021: C.19, 20, 21
5	October 2	Measurement, Reliability, Validity, Random Sampling Error	On OWL Brightspace
6	October 9	Bias, the role of the 3rd factor: Confounding, Interaction (Effect Modification)	On OWL Brightspace
7	October 16	**MID-TERM TEST (20%)** (Scheduled during class time)	
8	October 23	Research Study Designs (1): Overview, Case Series, Ecological and Cross-sectional	Jacobsen 2021: C.7, 8, 9
9	October 30	Research Study Designs (2): Cohort Studies	Jacobsen 2021: C.11

	November 3-9	***Fall Reading Week***	
10	November 13	Research Study Designs (3): Case-Control Studies	Jacobsen 2021: C.10
11	November 20	Research Study Designs (4): Experimental Studies	Jacobsen 2021: C.12
12	November 27	Descriptive statistics; Introduction to Comparative Statistics	Jacobsen 2021: C.29, 30
13	December 4	Review, Q & A	
14	December 8-9	**FINAL END OF TERM TEST/EXAM (30%) (Date TBD)**	
	December 10	***Study Day***	
	December 11-22	***Exam Period***	
	December 23-January 4	***Winter Break***	
15	January 8	Refresher from Term 1 (methodologies; epistemology; research questions); Introduction to qualitative research	TBA
16	January 15	Qualitative research questions, sampling and recruitment	TBA
17	January 22	Qualitative research methods (Part 1): in-depth, semi-structured interviews; focus group discussions; ethnography	TBA
18	January 29	Knowledge Justice	TBA
19	February 5	**MID-TERM TEST (25%)** (Scheduled during class time)	
20	February 12	Indigenous Research Methods	TBA
	February 16-20	***Spring Reading Week***	
21	February 26	Research ethics, power, positionality and reflexivity	TBA
22	March 5	Collaborative and community-based methods	TBA
23	March 9-13	Research Writing	TBA
24	March 16-20	Arts-based research	TBA
25	March 26	Knowledge to Action cycle: knowledge synthesis of primary studies	TBA
26	April 2	KTA cycle – knowledge mobilization	TBA
27	April 6-9	Q & A, Review	TBA
	April 10-11	***Study Days***	
	April 12-30	***Exam Period***	

Evaluation
Term 1:
Mid-term test - 20%
Will be focused on quantitative research methods. Topics include pre-research preparation (e.g., development of a research question), calculations of measures of occurrence and associations, evaluation of misclassification and confounding, and investigation of quantitative methodological issues such as confounding, bias, random sampling error in real life scenarios.
T/F, multiple choice, calculation, and short answer (fill in the blank).
This is a designated assessment, and therefore **academic consideration requires documentation as soon as possible and no later than 48 hours after the missed assessment.*

End of term test - 30%
Will be focused on quantitative research methods. Topics include pre-research preparation (e.g., development of a research question), calculations of measures of occurrence and associations, evaluation of misclassification and confounding, and investigation of quantitative methodological issues such as confounding, bias, random sampling error in real life scenarios.
T/F, multiple choice, calculation, and short answer (fill in the blank).
This test will be **cumulative** and evaluates students' deep understanding of **ALL** course materials and will be scheduled by the Office of the Registrar during the formal exam period (Dec. 11-22, 2025). **All materials** covered in the classes are **testable**.

Term 2:
Mid-term test - 25%
Will focus on the first four weeks of the second term.
Will include multiple choice, true/false and short answer questions.
This is a designated assessment, and therefore **academic consideration requires documentation as soon as possible and no later than 48 hours after the missed assessment.*

End of year assessment (no final exam) - 25%
Assignment Title: Exploring the Role of Reflexivity OR Knowledge Mobilization in Qualitative Health Research
Write a short essay (500 words) discussing **reflexivity OR Knowledge Mobilization** in qualitative health research.

Textbook and Other Learning Materials
Required textbook (Weeks 1-11): Jacobsen, Kathryn H. (2021). Introduction to Health Research Methods: A Practical Guide (3rd edition). Burlington, MA: Jones & Bartlett. The textbook costs $104.70. Students need to purchase this edition. Second-hand or older editions will not be sufficient.

Additional mandatory course readings on OWL Brightspace

Additional Information
Teaching Assistants as Points of Contact
Each student is assigned a TA who is their point of first contact throughout the course. It is the assigned TA who students email if they have a question that is NOT outlined in the syllabus. Given our class size and limited availability regarding email alongside our other teaching duties, please be selective and specific about your email inquiries. If the situation in question is a complex or sensitive case, then the instructor in charge of the set of lectures can be looped into the communications.

Brightspace
- RESOURCES - ALL ARTICLES POSTED FOR YOU
- LECTURE SLIDES - ALL SLIDES POSTED IN PDF

- ANNOUNCEMENTS - WE MAKE THEM OFTEN, SO PLEASE CHECK REGULARLY

AI Statement
It is permissible to use AI to help generate ideas, clarify class concepts, and conduct some of your research for the final project. However, it is NOT okay to use AI to write your assignments for you. It is not better than you, nor does it always say things that are correct, as you well know. Whenever you do use AI, please indicate the search engine and prompts entered. If this isn't done and it's clear that AI has been used, your grades will be impacted.

Grading scheme
We use the format provided below for grading, which is the university-wide scale that has been approved by the Western University Senate. It should also be noted that **WE DO NOT ROUND UP MARKS.**

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work that is clearly above average
B	70-79	Good work, meeting all requirements and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable.
F	below 50	Fail

It is expected that the grades for this course will fall between a B to A- average. If the average falls outside this range, a constant may be added (or subtracted) from each student's grade, by the instructor, to bring the class average in line with school policy. Although course averages in years 1 through 4 grades vary, this is the normative breakdown of average grades/year:

Year	1:	68-72				
Year	2:	70-74	(core)	and	72-76	(elective)
Year	3:	72-76	(core)	and	74-78	(elective)
Year	4:	74-80				

Communicating with us
We work hard and protect our respective 'me' time and would like our communications to occur from Monday-Friday (i.e., 8 am-5pm). This is not to restrict your access to the instructors or TAs; we're just letting you know what our preferred boundaries are. These timings also extend to our TA.

Course/University Policies

Support Services

There are various support services around campus and these include, but are not limited to:

1. Academic Support and Engagement - http://academicsupport.uwo.ca
2. Wellness and Well-being - https://www.uwo.ca/health/
3. Registrar's Office -- http://www.registrar.uwo.ca/
4. Ombuds Office -- http://www.uwo.ca/ombuds/

The websites for Registrarial Services (http://www.registrar.uwo.ca), and the same for affiliated university colleges when appropriate, and any appropriate Student Support Services (including the services provided by the USC listed here: http://westernusc.ca/services/) and the Student Development Services, should be provided for easy access.

Students who are in emotional/mental distress should refer to Mental Health@Western (https://www.uwo.ca/health/) for a complete list of options about how to obtain help.

Statement on Gender-Based and Sexual Violence

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at: https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

Student Code of Conduct

The purpose of the Code of Student Conduct is to define the general standard of conduct expected of students registered at Western University, provide examples of behaviour that constitutes a breach of this standard of conduct, provide examples of sanctions that may be imposed and set out the disciplinary procedures that the University will follow. For more information, visit https://www.uwo.ca/univsec/pdf/board/code.pdf

Absence from Course Commitments

Students must familiarize themselves with the Policy on Academic Consideration – Undergraduate Students in First Entry Programs

Students missing course work for medical, compassionate, or extenuating circumstances can request academic consideration by completing a request through the central academic consideration portal (Student Absence Portal). Students are permitted one academic consideration request per course per term **without** supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g., December and April exams) and for practical laboratory and performance tests (typically scheduled during the last week of the term).

Students should also note that the instructor may **designate** one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Academic consideration requests may be denied when flexibility in assessment has already been included. Examples of flexibility in assessment include when there are assessments not required for calculation of the final grade (e.g. 8 out of 10 quizzes), when there is flexibility in the

submission timeframe (e.g. 72 hour no late penalty period), or when timed assessments (e.g., quizzes) are available over an extended period of time (e.g., when you are given a 72 hour time period to start – and finish – the assessment).

Please note that any academic considerations granted in this course will be determined by the instructor of this course, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course syllabus. Supporting documentation for academic considerations for absences due to illness should use the Student Medical Certificate or, where that is not possible, equivalent documentation by a health care practitioner.

Accommodation for Religious Holidays
Students should review the policy for Accommodation for Religious Holidays. Where a student will be unable to write examinations and term tests due to a conflicting religious holiday, they should inform their instructors as soon as possible but not later than two weeks prior to writing the examination/term test. In the case of conflict with a midterm test, students should inform their instructor as soon as possible but not later than one week prior to the midterm.

Special Examinations
A Special Examination is any examination other than the regular examination, and it may be offered only with the permission of the Dean of the Faculty in which the student is registered, in consultation with the instructor and Department Chair. Permission to write a Special Examination may be given on the basis of compassionate or medical grounds with appropriate supporting documents. To provide an opportunity for students to recover from the circumstances resulting in a Special Examination, the University has implemented Special Examination dates. The Faculty of Health Sciences has set School-specific dates for these Special Examinations. Please speak with your instructor about the date on which the Special Examination for this course will be held.

Academic Offences
Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following website: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

Plagiarism
Student work is expected to be original. Plagiarism is a serious academic offence and could lead to a zero on the assignment in question, a zero in this course, or your expulsion from the university. You are plagiarizing if you insert a phrase, sentence or paragraph taken directly from another author without acknowledging that the work belongs to him/her. Similarly, you are plagiarizing if you paraphrase or summarize another author's ideas without acknowledging that the ideas belong to someone else. All papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between Western University and Turnitin.com (www.turnitin.com).

Use of Artificial Intelligence for the Completion of Course Work
Within this course, you may only use artificial intelligence tools (e.g., "ChatGPT") in ways that are specifically authorized by the course instructor. All submitted work must reflect your own thoughts and independent written work.

Re-submission of Previously Graded Material
Without the explicit written permission of the instructor, you may not submit any academic work for which credit has been obtained previously, or for which credit is being sought, in another course or program of study in the University or elsewhere.

Use of Statistical Pattern Recognition on Multiple Choice Exams
Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Accessibility Statement
Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Accessible Education (AE) at 661-2111 x 82147 for any specific question regarding an accommodation or review The policy on Accommodation for Students with Disabilities

Correspondence Statement
The centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at their official university address is attended to in a timely manner. Students are further expected to attend to announcements presented through Brightspace, and to read emails generated in this way.

Use of Electronic Devices

During Exams
Unless you have medical accommodations that require you to do so, or explicit permission from the instructor of the course, you may not use any electronic devices (e.g., cell phones, tablets, cameras, smart glass, smart watches, or iPods) during ANY tests, quizzes, midterms, examinations, or other in-class evaluations. **These devices MUST either be left at home or with your belongings at the front of the room. They MUST NOT be at your test/exam desk or in your pocket. Any student found with a prohibited device will receive an automatic grade of zero on the test or exam.**

During Lectures and Tutorials
Although you are welcome to use a computer during lecture and tutorial periods, you are expected to use the computer for scholastic purposes only, and refrain from engaging in any activities that may distract other students from learning. From time to time, your professor may ask the class to turn off all computers, to facilitate learning or discussion of the material presented in a particular class.

Copyright and Audio/Video Recording Statement
Course material produced by faculty is copyrighted and to reproduce this material for any purposes other than your own educational use contravenes Canadian Copyright Laws. Unless explicitly noted otherwise, you may not make audio or video recordings of lectures – nor may you edit, re-use, distribute, or re-broadcast any of the material posted to the course website.

Contingency Plan for an In-Person Class Pivoting to 100% Online Learning
In the event of a situation that requires this course to pivot to online content delivery, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in

the timetable) or asynchronously (e.g., posted on Brightspace for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor

Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

Online Proctoring

Tests and examinations in this course may be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at: https://remoteproctoring.uwo.ca.

Appealing a Grade Within this Course

You have the right to appeal any grade within this course. The grounds for a grade appeal may be one or more of: medical or compassionate circumstances, extenuating circumstances beyond the student's control, bias, inaccuracy, or unfairness. All grounds advanced in a request for relief must be supported by a clear and detailed explanation of the reasons for the request together with all supporting documentation.

Appeals generally proceed in this order:

1. Course instructor (informal consultation)
2. Department Chair (submission of written request)
3. The Dean of the Faculty (submission of written request)

In the case of perceived procedural unfairness, steps 2 and 3 are carried out within the Department and Faculty offering the course. In the case of extenuating medical or compassionate circumstances that impact on a grade, steps 2 and 3 are carried out within a student's Home Department and Faculty.

A request for relief against a mark or grade must be initiated with the instructor as soon as possible after the mark is issued. In the event that the instructor is not available to the student, or fails to act, or if the matter is not resolved satisfactorily with the instructor, a written request for relief must be submitted to the Chair of the Department within three weeks of the date that the mark was issued. In the case of a final grade in a course, the written request for relief must be submitted to the Chair of the department by January 31st (for first-term half courses) or June 30th (for second-term half courses or full-year courses).