

**SPPH 621: Approaches to Enquiry in Population and Public Health (3 credits)
Term 1, Wednesdays 1:30-4:30 pm**

Course Description

Scholarship within the area of population and public health draws on a range of disciplinary traditions, and as in other areas, approaches to research are evolving. While firmly rooted in traditions of epidemiology and quantitative approaches, research in this area is increasingly multidisciplinary in scope; it relies on concepts and approaches from a wider set of disciplines, such as social sciences and humanities, and methods, such as qualitative and mixed methods.

SPPH 621 is offered as a foundational course to ensure that thesis-based graduate students in the School of Population and Public Health (SPPH) are familiar with the broad and evolving set of quantitative, qualitative, and mixed methods approaches used to conduct research in this area. It is intended to provide students with an understanding of the scope and nature of research in the area of population and public health, together with an appreciation of the challenges of conducting rigorous research across its span. It is designed to encourage the development of curiosity as the driving force behind the conduct of research, to support students in situating their individual research interests within this terrain, and to encourage them to take responsibility for advancing their own learning, in partnership with their graduate supervisors. Additionally, the course is intended to support students in making decisions about the approaches they wish to pursue, and refining a research question that is aligned with those choices.

As a primary focus, the course will consider the central role of research questions in conducting research, and explore the process of developing them.¹ Students will be asked to develop research questions from each of the three approaches (quantitative, qualitative and mixed methods). Students will be guided through consideration of a series of decisions that are relevant to developing and refining a research question, and deciding on an appropriate approach for their work. In addition, it will orient them to a deeper understanding of the additional learning (including other coursework within and outside of SPPH) that will be required to advance their proposal development and thesis research at the doctoral level.

The course will rely on collaborative and learner-centred approaches² to explore a range of topics including: the scope of research in population and public health; the nature of science and ways of knowing; paradigms in health research; major traditions of research within population and public health; the centrality and importance of research questions in shaping research; the role of theory; an introduction to issues of design, analysis, data and observation; ethical challenges and implications of various approaches to research; representing and communicating about research; and other topics that may be identified by students. The course will encourage students to actively consider and apply course content and concepts to their own research interests; this will be done through a series of weekly journaling, laboratory activities, and small group discussions that are designed to complement the topics discussed in class.

Students are encouraged to approach the course with a spirit of curiosity and constructive discovery. Indeed, the instructors come from different traditions and expect to continue learning

¹ Who's afraid of research questions? The neglect of research questions in the methods literature and a call for question-led methods teaching. White P. *International Journal of Research & Methods in Education* 2013; Vol. 36, No. 3, 213-227.

² Learner-centered Syllabi Workshop. Iowa State University Center for Excellence in Learning and Teaching. Accessed at: <http://www.celt.iastate.edu/teaching-resources> on October 28, 2013.

from the class, and from each other. Given the range of research in the area of population and public health, readings should not be interpreted as 'truth', but should be considered critically and creatively, in relation to one's experiences and other knowledge, and in relation to one's chosen approach to research. In addition, the course will be useful to the extent that students actively participate in applying the approaches being studied and actively consider the implications of key learnings in relation to their own research interests.

Course Objectives

- to understand the 'culture' of research, and some of the controversies involved in the construction of knowledge
- to become familiar with a variety of topics, scientific methods and approaches, that are studied/used (e.g. epidemiology; social science; quantitative, qualitative and mixed method approaches; observational and experimental traditions, etc.)
- to identify and describe your own 'identity' as a researcher within this terrain
- to consider the range of approaches that might be used, together with the implications of choices to be made, to investigate your chosen area of interest
- to understand the importance of framing a strong research question, learn how to engage in this process, and make substantial progress in developing your own research question.

Instructors

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Prerequisites

Students enrolled in SPPH PhD program:
No prerequisites

Students in other graduate programs:
With permission from the instructors

Course format

The course will be offered in 13 three-hour classes³ that target key aspects of course content and support students in an ongoing process of identifying and refining an initial research question. Course materials will be made available through the UBC *Connect* system.

The course will use multiple approaches to learning, including: assigned readings, journaling, interactive lectures (to be jointly provided by instructors with different research backgrounds), laboratory activities, small group discussion, and student-led discussion, together with more active application of new learning through hands-on and written exercises, and peer review of others' work. Each class will typically be structured into two components: 1) The first will involve review of key readings and other learning resources, in which the co-instructors will present relevant perspectives on the materials from their differing backgrounds, and facilitate interaction

³ When timing of holidays restricts the number of sessions to 12, the 13 sessions will be condensed to cover all material.

with students; 2) The second component will involve laboratory activities that focus on application of learning and developing new research skills. Lab activities are central to the objectives of the course and are designed to move participants through a sequence of written and other activities in class. In this component, students will be supported to actively consider key issues and apply them to advance their own research; this will be achieved through a variety of mechanisms including written exercises, student discussion and reflection, and peer interaction and review in small groups.

Students will attain course competencies by participating actively in the range of learning activities. Completing required reading and (where relevant) written exercises prior to each class is a critical part of successful learning, effective class participation, and active application of new learning.

A series of exercises, both in-class and outside of class, will encourage students to actively consider and apply the approaches in relation to their own research interests. Where issues and approaches arising from individual examples may contribute to the learning of the entire class, students will be invited to share their work with the class.

Students will work together to reflect on, and advance the application of new learning to their own interests, and to provide feedback to peers. For this purpose, students will be assigned to small groups at the beginning of the term and will meet throughout the course; this will facilitate ongoing understanding and application, given different interests and approaches.

Required readings

Typically, required readings for each session will be drawn from a number of resources, including a required textbook, chapters from other relevant textbooks, published articles, and websites. Weekly class outlines will be posted on the UBC *Connect* system and will provide access to all required readings, *with the exception of those drawn from the required textbook*.

Required textbook:

Punch, Keith F. *Introduction to Social Research: Quantitative and Qualitative Approaches*: Sage, 2013.

Course schedule

The key topics to be covered on a weekly basis are outlined below. A more detailed course schedule will be made available to students at the beginning of the course. In addition, weekly class outlines will provide more specific guidance about required readings, laboratory activities, and preparing for each session; these will be made available through the UBC *Connect* system.

Week	Session Title	Topics to be covered
1	Introduction	<ul style="list-style-type: none"> • Introduction to the course and its aims • Introducing ourselves & objects/values • Overview and definition of key themes: enquiry vs. inquiry, research, population health, public health, importance of research questions • Introduction to course structure and key resources • Review of course assignments and expectations • Overview of the research study and informed consent process
2	Paradigms and the nature of science in	<ul style="list-style-type: none"> • What is the nature of science and what is within the realm of science? Is science value free? What are other ways of

	health research	<p>knowing?</p> <ul style="list-style-type: none"> •What is research? •What is a paradigm? (ontology, epistemology, methodology, axiology) •Understanding a range of perspectives and approaches in health research: from positivist to constructivist to subjectivist to transformative •Spectrum of research: from curiosity driven, to applied, to change/implementation science •Subjectivity, objectivity and situating oneself as a researcher, reflexivity
3	Major traditions and approaches to research in Population & Public Health	<ul style="list-style-type: none"> •What are some of the major traditions of research within population and public health? (e.g. epidemiology, quantitative, qualitative, mixed methods approaches, etc.) •What are some of the other relevant disciplinary traditions relevant to this area (e.g. sociology, anthropology, political science, economics, geography, etc.)? •What are some of the historical perspectives and developments that have shaped and continue to shape this area of research? •What are some of the major themes within SPPH and where do they focus?
4	Theory in research	<ul style="list-style-type: none"> •What is theory? •What is the difference between substantive and methodological theory? •How is theory developed, tested and refined? •How is theory differently understood and used in quantitative and qualitative traditions? •What are examples of key theories that are relevant in the area of P&PH? •How are theories and concepts related?
5	From concepts to research questions	<ul style="list-style-type: none"> •What makes a good research question? •Are there differences in what makes a good question in qualitative and quantitative traditions? •Types of research questions •What are some common pitfalls in developing a good research question?
6	Ethical issues in health research	<ul style="list-style-type: none"> •What is meant by axiology and how is it relevant to research approach and identity? •What are some of the biggest challenges in conducting ethical research? •What are important ethical principles in designing and conducting research? •What processes are used to ensure that research is conducted ethically?
7	Approaches to quantitative research design & data collection	<ul style="list-style-type: none"> •What are some of the major approaches to research design and collecting data in quantitative traditions? •What is the relationship between research questions, design & data collection? •How do quantitative research questions differ from qualitative research questions? •Example of a quantitative research project •What courses and opportunities within and outside of SPPH can support deeper understanding of the quantitative tradition?
8	Approaches to	<ul style="list-style-type: none"> •What are some of the major approaches to research design and

	qualitative research design & data collection	<p>collecting data in qualitative traditions?</p> <ul style="list-style-type: none"> •What is the relationship between research questions, research design, data collection, and data analysis? •How do qualitative research questions differ from quantitative research questions? •What courses and opportunities within and outside of SPPH can support deeper understanding of the qualitative tradition? •Example of a qualitative research project
9	Approaches to mixed methods research	<ul style="list-style-type: none"> •What are the features of qualitative and quantitative approaches? What are the strengths of each? •How can different methods and approaches be used to enhance and communicate scope and depth of understanding? •What are some of the major approaches to research design in mixed methods research? •Mixed methods vs multi methods – what are the differences? •What are the optimal ways to structure mixed methods research questions? •In what ways are mixed methods approaches challenging? •Examples of mixed methods research projects
10	Validity: How might you be wrong and how to ensure rigor	<ul style="list-style-type: none"> •Many terms are used to describe the ‘soundness’ of research: validity, rigour, and others. What do these terms mean and how do they differ? •What types of validity are important in conducting research? •Are different terms used in qualitative and quantitative traditions? In what ways are approaches to ensuring validity similar across these traditions? In what ways do they differ? What are the implications for mixed methods research? •What questions must be considered in developing a strong research plan? •Developing an integrated research plan and importance of ensuring things are ‘plumb’.
11	Integrated knowledge translation	<ul style="list-style-type: none"> •What is the spectrum of research outputs and knowledge products from qualitative and quantitative traditions? •How does integrated knowledge translation differ from traditional knowledge translation? •What are the major mechanisms for communicating about research? How are these approaches changing over time and with new technologies? •Null results and biases in publication
12	Student presentations	
13	Student presentations Course wrap-up & celebration	

Learning Outcomes

By the end of the course students will have:

- developed an understanding about the relative strengths and challenges of using qualitative, quantitative, and mixed methods approaches
- developed an understanding about their own ‘researcher identity’ and the implications of this for an approach to research

- formulated a working research question that can serve as a focus for continued learning, proposal development, and thesis research
- created a working research plan with designated approach and rationale
- experienced journaling as an approach to developing a habit of reflexivity in their research career
- demonstrated an ability to understand, constructively reflect on, and provide helpful feedback on others' work, especially as it pertains to formulating research questions and linking approaches to research in a chosen area
- developed an ability to identify and select relevant future learning opportunities (e.g. formal courses, web-based learning resources, etc.) that will support them in advancing their thesis research

Assessment and Evaluation

Students will be evaluated as follows:

Journal synthesis assignments (40%)

Students will be required to submit three assignments that are to be developed from their journaling activities. Every week, students will complete journal entries. At three points over the course, students will develop a synthesis of previous journal entries for review and feedback from their peers and instructors. The three journal synthesis topics are: researcher identity; research questions; and mixed methods approach.

These written assignments will support students in reflecting on key learnings, and considering their implications for their own research interests. As well, they will support students in developing a deeper understanding about their research interests, their initial research question, and approaches to research that are aligned with their question, and developing these further for the final research paper. For this component, students will be assessed on their ability to engage with, and apply perspectives from key learning resources to their own research interest.

Small group work, class participation and peer feedback (20%)

Students will work in small groups that will meet over the duration of the course. These groups will provide an ongoing opportunity for students to discuss their research interests, and to provide verbal and written feedback to others. For this component, students will be assessed on class participation (including weekly rapid reflections), small group discussion, and ability to provide written and oral feedback to others whose interests may differ from their own.

Final presentation (10%)

Students will be expected to give a presentation in which they describe their current understanding of and rationale for their researcher identity, research question(s), and general approach. They may wish to describe challenges they faced in arriving at the current version of their question, and outline a plan for advancing their future learning through coursework and other means.

Final paper (30%)

Students will be expected to develop a final paper in which they describe their current understanding of and rationale for their researcher identity, research question(s), and general approach. These components will build on work done for the journal synthesis assignments, and will require integration of these materials into a coherent document. In addition, students will be expected to describe challenges they faced in arriving at the current version of their question,

and outline a plan for advancing their future learning through coursework and other means. This may involve reflection on personal strengths and challenges in moving forward on this agenda.

Grading

Numeric and letter grades will be assigned as follows:⁴

A Level (80% to 100%)

This category of achievement is typified by work that meets the highest expectations as outlined below.

A+ is from 90% to 100%: It is reserved for exceptional work that greatly exceeds course expectations. In addition, achievement must satisfy all the conditions below.

A is from 85% to 89%: A mark of this order suggests a very high level of performance on all criteria used for evaluation. Contributions deserving an A are distinguished in virtually every aspect. They show that the individual significantly shows initiative, creativity, insight, and probing analysis where appropriate. Further, the achievement must show careful attention to course requirements as established by the instructor.

A- is from 80% to 84%: It is awarded for generally high quality of performance, no problems of any significance, and fulfillment of all course requirements.

B Level (68% to 79%)

This category of achievement is typified by adequate but unexceptional performance. It is distinguished from A level work by one or more problems, for example: a significant error in understanding, superficial representation or analysis of key concepts, or lack of coherent organization or explanation of ideas. The level of B work is judged in accordance with the nature of problems demonstrated. B+ is from 76% to 79%, B is from 72% to 75%, and B- is from 68% to 71%.

C Level (55% to 67%)

This category of achievement is typified by less than adequate performance at the graduate level, and is distinguished from B level work by multiple problems, including: significant errors in understanding, superficial representation or analysis of key concepts, and/or lack of coherent organization or explanation of ideas. The level of C work is judged in accordance with the severity of the problems demonstrated. C+ is from 64% to 67%, C is from 60% to 63%, and C- is from 55% to 59%.

Note: All assignments are due on the dates noted. In the absence of a pre-arranged extension to the due date or documented medical circumstances, students handing in a late assignment will incur a penalty of 10% of the allotted assignment grade for each day after the due date. Also, late assignments may mean delays in marking.

Notes on the role of lab activities:

- The schedule of weekly lab activities is designed to complement the topics discussed each week in class by adding to and enriching learning opportunities.
- Lab activities are central to the objectives of the course and are designed to move participants through a sequence of written and other activities.
- Most of the weekly lab activities will be conducted in assigned small groups though some may be done individually or as a large group.
- Each weekly lab activity follows a similar format that includes: preparation and reading to be completed before class, in class activities, and follow-up activities.
- All lab activities are a required part of the course and full participation is expected at each session. Preparatory work must be completed BEFORE each session.
- Evaluation of journal syntheses will be done three times during the term and will use the following system for grading:

⁴ Adapted from: Pratt D. Graduate Course Grading Policy, UBC Department of Education Studies.

- A: Exceptional B: Adequate C: Inadequate

Guidelines for preparing journal entries:

- There are many reasons that researchers keep a research journal. One of the most important is that it provides a space for you to engage in reflexive thinking and writing about your research topic, your learning and your values as a researcher. Another is that it provides a record of how your thinking develops over time. Often this is difficult to track if you do not write regularly as you will begin to take many things for granted as you progress through a project. Thus another reason to keep a research journal is that it provides an audit trail.
- In the context of this course, your journal will be an integral part of your learning and provide an opportunity to reflect on course material. You will be using it to *prepare for class* by responding to the questions posed for you to consider, or by making note of any questions you have about a reading. You will also be using it for *follow-up after class* to reflect on what occurred in a discussion or lab activity and to record your responses to feedback you may have received from your classmates.
- Your journal is, first and foremost, intended to be for you, and to serve in the development of your own research and learning within the course. This means that you should feel free to write in an uncensored way about whatever you need to in order to work through issues relevant to the process of identifying your research question, ethical issues, appropriate methods etc.
- Your journaling may make use of any number of different techniques (i.e., point form, concept map, diagram) and you may use whatever format you prefer for your journal (e.g., notebook, word document, file cards, software or apps such as Evernote). You may wish to include various items related to your area of research (e.g., news clippings, quotations from papers you read, personal notes about your own life experiences) so it may be helpful if you choose a format that allows for images and audio files.
- The Maxwell readings provide many useful examples of journaling. (See Exercises 2.1, 3.1, 4.1, 5.1, and 6.1.)
- There are several kinds of journaling you will be asked to engage in for this course and each is suited to a somewhat different purpose.
 - *Journal entries* are written on the spot without a lot of analytic energy and often seem to reflect a stream of consciousness about a topic or feeling. They are very useful as a means of getting things down quickly and often they are quite revealing of things we might not have even been aware we were thinking or feeling. These raw journal entries can, therefore, help us tap into our values, unacknowledged feelings, or questions.
 - *Memos* are written in a more structured and reflective way, entailing some analytic thinking about a topic or question. They often bring together the raw material of a journal entry with the more abstract or conceptual thinking that comes out of other activities, including: reviewing the literature in your field, conversations with experts, reviewing preliminary results, etc. Memos are, therefore, very useful as a means of recording how we understand an emergent issue or aspect of our research. They may also become draft material in our research write up or publications.
 - *Journal syntheses* are short assignments that you will be asked to hand in. They are a more polished and edited form of your journal entries and memos. Thus they build on the insights that you develop through your raw journal entries and memos by combining your personal reflections with an analytic stance or appreciation for conceptual material discussed in the course and associated

course readings, as well as readings related to your topic. You may want to quote from raw journal entries or memos in your journal syntheses, but you will not be asked to hand in either the raw entries or memos.

- During the term, you will be asked to write three journal syntheses related to the following topics: 1) researcher identity; 2) research questions; 3) mixed methods approach. Only these three journal syntheses will be read by your classmates and/or TA and instructors.
- Journal syntheses will take a specific form. They should be written in full prose (not point form) and should be 1000 words each (maximum).
- Journal syntheses will be shared with your small group and you will, therefore, have an opportunity to receive feedback from your peers and as well as from the course instructors.

Journal synthesis 1 (10%): researcher identity

(Covers content from weeks 1, 2, and 3)

- Draft due: September 24
- Peer feedback due: September 27
- Final due: October 1

Journal synthesis 2 (15%): research questions

(Covers content from weeks 4, 5, and 6)

- Draft due: October 15
- Peer feedback due: October 18
- Final due: October 22

Journal synthesis 3 (15%): mixed methods approach

(Covers content from weeks 7, 8, and 9)

- Draft due: November 5
- Peer feedback due: November 8
- Final due: November 12

Guidelines for peer review:

- You will be engaging in peer review of your small group members' journal syntheses. For each of the three journal syntheses, you will be reading the submissions from everyone in your small group and providing written comments for a subset, depending on size of group.
- The first principle of effective peer review is GENEROSITY. Read and consider each submission with an open mind, a desire to learn from each other and a willingness to share your own authentic responses.
- The second principle of effective peer review is CURIOSITY. Don't be afraid to respond with new questions. Identify where you would like to know more.
- The third principle of peer review is CAREFUL SCRUTINY. Read the submission completely and then reread it at least once before responding. Often time we jump on something without taking it all in and then respond with a knee-jerk reaction. Here you want to offer your most well-thought through ideas in an engaged manner. This means you interact with the ideas that are there as opposed to what you assume is there.
- The last principle of peer review is to be HONEST & HELPFUL. If something puzzles you, say so. Don't pretend you understand. If something excites you say so. Don't "damn something with faint praise". If you know of a useful reference, provide it.

- Comments should be written in full prose and engage as fully as time permits with the material submitted for review.

Summary – Student responsibilities

Task	Frequency	Due Dates	
Weekly follow up and prep	Every week	-	
Journal entries	Every week	-	
Lab activities & class discussion	In class	-	
<i>Draft</i> journal syntheses		Sep 24 Oct 15 Nov 5	Sunday @ midnight
Written peer feedback on journal syntheses	3 times over semester	Sep 27 Oct 18 Nov 8	Wednesday before class
<i>Final</i> journal syntheses	3 times over semester	Oct 1 Oct 22 Nov 12	Sunday @ midnight
Final presentations	One time (end of semester)	Nov 22 and 29	In class
Written peer feedback on presentations	Two times (end of semester)	Nov 24 and Dec 1	Friday @ midnight
Final paper	One time (end of semester)	December 10	Sunday @ midnight

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. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.