General aims

1. To give an introduction to health care research, its methods and the planning of research.
2. To learn the basics of different research designs, their strengths and weaknesses.
3. To learn to apply the research designs and methods in the planning of your own research.

Structure of the course

• 12 sessions each of which contain pre-readings, assignments and a seminar of 3.5 hours duration (2 pm to 5:30 pm, Wattle room, N Block, SPARHC).
• Before each session the students will receive via email material that contains details of the session, its goals, 3 to 5 selected articles for pre-reading and an assignment.
• Suggested texts (not mandatory):
• Planning your own research and discussing the process during the seminars. This will happen gradually over the weeks.

Assessment of the course

• Attendance at the seminars – 60%
• Assessment of the research plan – 40%
The sessions of the course and their aims

Session I 12.8.2015
Approaches to health care research
Aims:
1. To understand what health means to different stakeholders: patients, clinicians, health policy makers.
2. To learn how the approach to research and selection of study design depends on the research question.

Session II 26.8.2015
Formulating research questions
Aims:
1. To learn how to formulate research questions.
2. To use the PICO system in research question formulation.

Session III 16.9.2015
Do we need another study? Systematic reviews
Aims:
1. To learn the process of conducting a systematic review.
2. To understand the purpose of systematic reviewing and whether a systematic review might fit into your research work.

Session IV 30.9.2015
Planning and designing a study
Aims:
1. To learn about different clinical study designs:
   a. randomised clinical trials.
   b. cohort and case-control designs.
   c. qualitative methods
d. evaluation of diagnostic test properties.
2. To learn the strengths and weaknesses of different designs.
3. To learn to apply different designs.

Session V 21.10.2015
Whom do we study?
Aims:
1. To learn about sampling methods in quantitative and qualitative studies.
2. To understand the concepts of internal and external validity and their importance in deciding on sampling strategies.
3. To understand the strengths and weaknesses of different sampling methods.

Session VI 18.11.2015
What do we measure?
Aims:
1. To learn how to choose outcome measures.
2. Strengths and weaknesses of measuring instruments.

Session VII 9.12.2015
Measuring the burden of disease
Aims:
1. To learn basic epidemiological terms such as prevalence, incidence, mortality, case fatality rate, and adjustment.
2. To learn to describe the burden of disease.
3. To be able to calculate and interpret measures of disease frequency.

Session VIII 3.2.2016
Effectiveness of health care interventions
Aims:
1. To learn the basics of studying interventions.
2. To understand the meaning of effectiveness and how to measure it.
3. To understand the strengths and weaknesses of controlled trials.

Session IX 24.2.2016
Diagnostic studies
Aims:
1. To learn about the rational use of diagnostic and screening tests.
2. To understand the clinical usefulness of diagnostic or screening tests.

Session X 16.3.2016
Understanding causalities
Aims:
1. To understand the challenges of studying causation, that association does not imply causation, and how to study risk factors.
2. To understand the difference between strength of an association and its statistical significance.

Session XI 13.4.2016
Ethics process and writing the research proposal
Aims:
1. To learn the process of ethics approval.
2. To learn the formats of research proposals for different purposes: PhD submission, ethics approval and grant applications.

Session XII 4.5.2016
Closing session, presentation of the research plans
Aims:
1. To present your own research to an external reviewer.
2. To learn to join an academic discussion.

Cost of course for those external to UWA: $250

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