

International Program – Global Health Leadership (8-10-16)

Course Name: Research Methods

Course Number: 286.4725

Credit hours: 2 hours (24-26 teaching hours in one semester)

Lecturer's name: Manfred Green

Contact details: manfred.s.green@gmail.com

Course description:

This course will provide students with an introduction to research methods and the critical skills to design, conduct, and analyze data from health studies. The course will introduce research objectives, the role of hypotheses, research designs (including qualitative and quantitative research), data collection techniques, and analysis of data. The course will also review principles of effective writing. It will specifically cover issues related to scientific writing, including, peer review, the format of an original manuscript, and communicating science to general audiences.

Course objectives:

- Understand the architecture of research
- Know how to define research objectives
- Design questionnaires
- Validate questionnaires
- Selection and information bias
- Principles of sampling methods
- Determining sample size
- Data collection techniques

Duration of the course:

Dates: November 1, 2016 – January 24, 2017

Times:

Prerequisites: None

Course requirements:

- 1. Attendance at lectures and seminars**
- 2. Assignments and exercises**
- 3. Final exam**

Calculation of final grade:

- 1. Assignments and exercises: 50%**
- 2. Final exam: 50%**

Recommended text-books (for reference only):

1. Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB. Designing Clinical Research. 3rd Edition. Wolters Kluwer. Lippincott, Williams and Wilkins 2007.
2. Abramson J, Abramson ZH. Research Methods in Community Medicine: Surveys, Epidemiological Research, Programme Evaluation, Clinical Trials, 2008.

Recommended reading:

1. STROBE Guidelines – Internet
2. CONSORT Guidelines – Internet
3. Selected journal articles

Research Methods
First Semester 2016-17

| No. | Day | Date | Time | Subject | Lecturer |
|------------|------------|-------------|-------------|---|---------------------|
| 1 | Tues | 01-11-16 | 10.15 | Course description – the architecture of research. The research proposal | Prof. Manfred Green |
| 2 | Tues | 01-11-16 | 10.15 | Quantitative research | Prof. Manfred Green |
| 3 | Tues | 15-11-16 | 10.15 | Target population and sampling methods and selection bias | Prof. Manfred Green |
| 4 | Tues | 15-11-16 | 10.15 | Designing questionnaires | Prof. Manfred Green |
| 5 | Tues | 29-11-16 | 10.15 | Validation of questionnaires (validity and reliability) | Prof. Manfred Green |
| 6 | Tues | 29-11-16 | 10.15 | Estimating and dealing with random error and misclassification bias | Prof. Manfred Green |
| 7 | Tues | 13-12-16 | 10.15 | Sample size estimation – 1 | Prof. Manfred Green |
| 8 | Tues | 13-12-16 | 10.15 | Sample size estimation – 2 | Prof. Manfred Green |
| 9 | Tues | 27-12-16 | 10.15 | Qualitative research 1 | Dr. Shiran Bord |
| 10 | Tues | 27-12-16 | 10.15 | Qualitative research 2 | Dr. Shiran Bord |
| 11 | Tues | 10-01-17 | 10.15 | Systematic literature reviews | Prof. Manfred Green |
| 12 | Tues | 10-01-17 | 10.15 | Student presentations | Prof. Manfred Green |
| 13 | Tues | 24-01-17 | 10.15 | Summary/Final exam | Prof. Manfred Green |