



Berlin School of Public Health | BSPH

Summerschool Epidemiology Critically Understood

5th - 9th August, 2013, 9:00 - 17:00

Lecturer

Professor Olli S. Miettinen, MD, PhD
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Biographical Sketch

Professor Olli S. Miettinen, MD, PhD, Dr. Med. Sci (hon.), Dr. (hon.) is Professor of Epidemiology and Biostatistics and Professor of Medicine at McGill University. He was formerly Professor of Epidemiology and Biostatistics at Harvard University, serving on the Harvard faculty from 1966 to 1986.

Research Interests

Professor Miettinen is considered by contemporary scholars to be the founder of modern epidemiologic thinking. His landmark publications in the theory of epidemiologic study design and causal inference starting in the late 1960's and still continuing have formed the intellectual core of today's epidemiologic approaches to the study of disease occurrence. Besides his universally recognized core contributions to epidemiology, he has made several substantive contributions in a number of areas of epidemiology, including cardiovascular disease etiology and prevention, cancer screening, and identification of adverse effects of medications, among others.

Venue

Charité - Universitätsmedizin Berlin | Campus Virchow-Klinikum
Augustenburger Platz 1 | 13353 Berlin

Audience

Public Health Professionals, Epidemiologists and Clinicians familiar with advanced epidemiologic knowledge, algebra, and statistical computing.

Language English

ECTS 3

Course fees 360 € for students
450 € other participants

Registration Information

Ms. Tanja Te Gude, Student Services
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Payment of the course fee ensures participation.

Further information about BSPH: <http://bspb.charite.de>

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Beteiligte Institutionen

Course Outline

Day 1 Epidemiological Practice: Overview

Background concepts

- Medicine (pre-scientific, pseudo-scientific, scientific)
- Community/social medicine
- Public health (classical, modern)
Epidemiology (back to what it was)

Epidemiological practice: 1. Concepts

- Sickness; illness; morbidity; rates of morbidity; prevention (primary)
- Etiology/etiogenesis (of sickness, illness, ageing)
- Cause; risk factor; the constitution-environment-behavior complex of risk factors
- Diagnosis; etiognosis; prognosis

Epidemiological practice:

2. Scientific knowledge-base

- Diagnostic functions (re-morbidity)
- Etiognostic functions (re-morbidity)
- Prognostic functions (re-prevention-prognostic risks)

Epidemiological practice: 3. Main elements

- Fact-finding (re risk indicators/factors)
- Pursuit of gnosis (re-morbidity)
- Preventive 'interventions'

Day 2 Epidemiological Research: Overview

Background concepts

- Science
- Applied science
- Application of science

- Scientific art
- Research

Epidemiological research: concepts

- Definitional essence of e.r.
- Quintessentially applied e.r.
- Occurrence relation; its domain
- Models for occurrence relations
- Gnostic occurrence relations
- Objects of study in gnostic e.r.

Epidemiological research at present: examples

- Distribution of studies by genre of sought knowledge
- Role of vision of application of knowledge
- Role of objects design in methods design
- Nature of the objects and results
- Prevalence and nature of 'conclusions'
- Extent and nature of attained knowledge

Day 3 Etiognostic Studies: Objects Design

Point of departure in the design

Missions in the design

Desiderata/requirements for each of the designs

- Ontological/ontal
- Epistemological/epistemic
- Applicational/applied

Day 4 Etiognostic Studies: Methods Design

- General essence of an etiognostic study
- Missions in the design

- The two stages in the design
- Topics in the design
- Desiderata/requirements for the design

Day 5 Prognostic Studies: Select Topics

Prevention prognosis: clinical vs. epidemiological Prevention-prognostic epidemiological studies

- General essence of the prognostic functions concerning an event of health
- General essence of studies on this function (an innovation on RCTs)
- General essence of the prognostic function concerning a state of health
- General essence of the studies on this function

Teaching Material (required)

1. Miettinen O. S. Epidemiological Research: Terms and Concepts. Dordrecht: Springer, 2011.
2. Miettinen O. S., Karp I. Epidemiological Research: An Introduction. Dordrecht: Springer, 2012.

In these two recently published books Prof Miettinen questions widely held assumptions and uses deductive logical reasoning to make his points clear. The books are condensations of many decennia of serious reflections and have the potential to advance considerably our understanding of the theoretical dimensions of epidemiology. Participants are asked to read the course texts. They form the basis of the course.