International Short Course Training in Research Methodology & Biostatistics

August 1 - November 30, 2022

Clinical Epidemiology Unit
KHON KAEN UNIVERSITY

THE CLINICAL EPIDEMIOLOGY UNIT

The Clinical Epidemiology Unit (CEU) has been established in the Faculty of Medicine, Khon Kaen University since 1982. The Rockefeller Foundation (subsequently INCLEN Inc.) gave fellowships for members in the unit from various departments and Faculty of Public Health to be trained in Clinical Epidemiology, Biostatistics, Health Economics, Social Science from McMaster University, University of Pennsylvania, University of Newcastle and Toronto University. The unit is currently offering many research methodology and biostatistics training programs including the joint M.Sc. in Clinical Epidemiology program with CEUs at the Faculty of Medicine, Chulalongkorn University and the Faculty of Medicine, Siriraj Hospital, Mahidol University.

The four-month course in Research Methodology and Biostatistics aims specifically for mid-level health personnel that usually cannot leave their responsibility for a longer period of time.

ENTRY REQUIREMENT

- M.D. or B.Sc. in Health Science
- Minimum English language requirements

TOEFL (Paper Based)	470
TOEFL (Computer Based)	150
TOEFL (Internet Based)	52
TOEFL (Institutional Testing Program)	470
IELTS (Academic Module)	5.0
TU-GET	500/1000
CU-TEP	60/120
KKU-KEPT	60/100

The score must not be older than 2 years.

- Number admitted: 15-20 per year
- Participants should prepare themselves to develop a completed research proposal before the completion of the course.

ACCOMMODATION

Participants will have to arrange their own accommodation. There are many condominiums, courts and hostels in the walking distance from the university. The rate varies from USD 200 to USD 500 per month. Detailed information is available on request.

FINANCE

Financial support may be available from a number of sources and applicants are advised to seek funding from their employers or an agency such as the British Council, EC, UNDP, UNFPA, WHO, the World Bank or other similar organizations.

TUITION FEES

International students: USD 5,000
Thai students: THB 80,000
These fees are only for teaching costs and teaching materials.

APPICATION

Applications from 1 February - 30 April 2022.

For further information and An application form Please contact

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International Short Course Training in Research Methodology & Biostatistics
At the Clinical Epidemiology Unit, Faculty of Medicine, Khon Kaen University, Thailand.
Between August 1st – November 30th, 2022

COURSE CONTENTS

I Information Technology
- Retrieval
- Assessment
- Deduction and inference
- Communication and dissemination

II Critical Appraisal
- Overview
- Scientific reasoning and process
- Natural history and prognosis
- Diagnosis
- Causation
- Treatment
- Clinical practice guideline
- Qualitative study
- Systematic review and meta-analysis

III Research Methodology
- Identify and prioritize problems
- Research questions
- Descriptive study
- Diagnostic test
- Etiologic study
- Intervention study
- Introduction to qualitative research
- Overview of action research
- Participatory action research
- Good clinical practice
- Research synthesis
- Bias
- Ethics in research

IV Measurement
- Conceptual framework
- Basic concepts in measurement
- Clinical measurement and tools
- Questionnaire design
- Observation
- Interview technique
- Focus group discussion

V Biostatistics
- Overview
- Statistics for critical appraisal
- Concept of statistical inference
- Introduction to sample size determination
- Statistic softwares for data handling and analysis
- Selection of study units (Sampling techniques VS Random allocation)
- Exploratory data analysis
- Inference on mean for one group, two independent groups, and two related groups
- ANOVA, correlation, and regression
- Inference on proportion for one group, two independent groups, and two related groups
- Comparing risk I (non-modeling approach)
- Comparing risk II (modeling approach)
- Sample size determination
- Survival analysis
- Non–parametric statistics
- Analysis of longitudinal data
- Statistics measure of reliability
- Analysis of quantitative synthesis
- Comprehensive review of biostatistics

VI Health Economics
- Introduction to health economics
- Critical appraisal of economic evaluation
- Phamacoeconomics
- Health technology assessment

VII Research Management
- Plan for project administration
- Research management
- Principle of multicenter study
- Research proposal development
- Writing a scientific paper

VIII Knowledge Management
- Implementation issues and strategies
- Valuing knowledge