Global Health Institute
University of Antwerp

EBQ
PERÚ edition 2017

TENTATIVE PROGRAMME

31 July - 18 August 2017

Week 1	31/07/17	01/08/17	02/08/17	03/08/17	04/08/17
	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
9 -10 am	Welcome: short introduction (JPvG)	Qualititve study design (PVR-LP)	Qualititve study design (PVR-LP)	Qualititve study design (PVR-LP)	Epidemiology (GD)
10 am -1 pm	Introduction participants & research presentation				
1 - 2.30 pm	*Lunch pause*				
2.30 - 4 pm	Introduction participants & research presentation	Qualititve study design (PVR-LP)	Qualititve study design (PVR-LP)	Epidemiology (GD)	Epidemiology (GD)
4 - 6 pm	Opening reception				

Week 2	07/08/17	08/08/17	09/08/17	10/08/17	11/08/17
	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
9 am - 1 pm	Epidemiology (GD)	Epidemiology (GD)	Epidemiology (GD)	Epidemiology (GD)	Epidemiology (GD)
1 - 2.30 pm	*Lunch pause*				
2.30 - 5 pm	Biostatistics (JC)	Biostatistics (JC)	Biostatistics (JC)	Biostatistics (JC)	Biostatistics (JC)

Week 3	14/08/17	15/08/17	16/08/17	17/08/17	18/08/17
	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*
9 am - 1 pm	Biostatistics (JC)	Basic statistics using R (CDR)	Basic statistics using R (CDR)	Basic statistics using R (CDR)	Control programs infectious diseases (ALLC)
1 - 2.30 pm	*Lunch pause*				
2.30 - 5 pm	Epidemiology of Infectious diseases (JP)	Intro to Molecular epidemiology (DG)	Intro to Clinical trials (JPvG)	Systematic review (JPvG)	Closing ceremony: awarding certificates, reception

Lecturers

Paul Van Royen	PVR
Lieve Peremans	LP
Greet Dieltiens	GD
Jean-Pierre van Geetruyden	JPvG
Christopher Delgado-Ratto	CDR
Dionicia Gamboa	DG
Alejandro Llanos-Cuentas	ALLC
José Chauca C	JC

Course coordinators & teaching assistants

Oscar Nolasco	ON
Paulo Manrique	PM
Beronica Infante	BI
Roberson Ramirez	RM

Local EBQ Course - PERU

Epidemiology, Biostatistics & Qualitative Research Methods

EBQ
PERÚ edition 2017

31 July - 18 August 2017

Universidad Nacional de la Amazonía Peruana
Iquitos, PERU

The course will be **taught** by faculty from UAntwerp and UPCH, **mainly in Spanish but basic level on English is required** in order to follow some specialized seminars during the last course week.

EBQ Iquitos FACULTY

Prof. Dr. Jean-Pierre van Geertruyden
Coordinator Global Health Institute, Clinical epidemiologist, infectious & chronic diseases in the tropics.
+ info

Prof. Dr. Paul van Royen
Dean Faculty of Medicine, Professor Family Medicine.
+ info

Prof. Dr. Lieve Peremans
Primary and interdisciplinary care
+ info

Dr. Greet Dieltiens
Epidemiologist, Emergency doctor (invited lecturer from the Network of Hospitals in Antwerp, ZNA)
+ info

Dr. Dionicia Gamboa Vilela
Coordinator Lab Malaria, molecular biologist.
+ info

Prof. Dr. Alejandro Llanos C.
Control of infectious diseases, Public Health.
+ info

Dr(c). José Chauca C.
Biostatistics & medical microbiology
+ info

Dr(c). Christopher Delgado-Ratto
Molecular epidemiologist & biostatistics.
+ info

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SHARING MINDS, CHANGING LIVES

EBQ

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Learning outcomes

Major topics

1. *Epidemiology* – Dr. G. Dieltiens

- Appropriately use the concepts of prevalence and incidence, and various assimilated measures (attack rate, morbidity rate).
- Explain the relation between incidence and prevalence.
- Critically assess routinely collected data.
- Interpret the information provided by tests in terms of probability.
- Assess the consequences of false positive and false negative results, and use this information for public-health decision-making.
- Discriminate between adequate, and inadequate methods to assess reproducibility.
- Distinguish the different types of studies.
- Describe the strengths and weaknesses of experimental studies.
- Describe the strengths and weaknesses of observational studies (cross-sectional, longitudinal, case-control and ecological studies).
- Recognise and assess the study design in a scientific article.
- Explain the principles of inference and the concepts of validity and random error.
- Describe the 3 major types of bias.
- Identify bias in epidemiological studies.
- Describe the techniques to control confounding bias.
- Explain the concept of risk and risk factor.
- Appreciate the importance of study design in risk assessment.
- Measure absolute, relative and attributable risks.
- To better understand published epidemiological research, through a practical.
- and structured step-by-step approach for critical reading of scientific literature.
- Understand & accept its limitations, be able to draw meaningful conclusions about health and disease.

2. *Biostatistics* Dr(c) J. Chauca

The students will be able to perform basis analysis using:

- Descriptive statistics: Summarizing and presenting data
- Probabilities theory
- Random variables and their distribution
- Samples, populations, point- and interval estimates
- Testing hypotheses
- Comparing means of two proportions
- One-sample inference
- Non-parametric methods
- Contingency tables
- ANOVA
- Basic regression analysis (linear and logistic)
- Survival analysis

3. *Qualitative Study Design*
Prof. P Van Royen, Prof. L. Peremans

The students will be able to:

- Explain why and when to use qualitative research
- Design his/her own qualitative study
- Show he/she has basic competencies to set up a qualitative research: from research question to data-collection method
- Analyse qualitative data, including basic competencies of working with Nvivo software
- Explain and assess the validity and reliability of qualitative research
- Explain the basics of writing and publishing qualitative research studies.

Practical Sessions

4. *Basic statistics using R software (hands-on tutorials)* - Dr(c) C.Delgado-Ratto

The students will learn how to approach descriptive and inferential statistics using the free software for statistical computing and graphics, R and its interface RStudio.

Introductory lectures

5. *Epidemiology of infectious diseases*
Prof. JP van Geertruyden

6. *Systematic review & Meta-analysis*
Prof. JP van Geertruyden

7. *Molecular epidemiology* - Dr. D. Gamboa V.

8. *Intro to Clinical trials* - Prof. JP van Geertruyden

9. *Control programs of Infectious diseases*
Prof. A. Llanos-Cuentas

- Students will understand that disease control is a dynamic process, highly heterogeneous and complex. The transmission and the disease development are multi-causal, with great influence of the environment on the living beings (humans, vectors and parasites).
- Disease control is a hierarchic process with stages and defined indicators of the outcomes and impact.
- The evolution and success of disease control requires research and updated knowledge.