



11th Basic Summer Course on Veterinary Epidemiology

Faculty of Veterinary Medicine

Academic year 2024–2025

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WELCOME

11th Basic Summer Course on Veterinary Epidemiology.

INTRODUCTION

Epidemiology in veterinary medicine is becoming increasingly important for many people active in veterinary practice, research, consultancy and organization and regulation of animal production.

The aim of this summer course is to make all participants familiar with the key aspects of veterinary epidemiology in a practical and applied manner. Upon completion of this course all participants should be familiar with all basic concepts of veterinary epidemiology, be capable of critically reading and understanding scientific literature and performing basic statistical and epidemiological analyses. Moreover, the participants should be ready to design surveillance, analytical or clinical studies and to critically analyze the results. Furthermore the participants will be introduced to several aspects of more advanced epidemiological tools.

The course will be organized as a two week summer course (9 September – 20 September 2024) consisting of 10 course days. Every day will be filled with a mixture of theoretical training and practical applications. At the end of the course there will be the possibility to participate in a "take-home" exam. An online course (5- 10 hours, depending on your prior knowledge on working with R) will be offered as a pre-workshop for the statistical and risk assessment part within the course. In total, this summer course will count for 3 ECTS points.

The course will be thought by different experienced lecturers with ample theoretical and practical knowledge

PARTICIPANTS

The course is intended for everybody who is confronted with epidemiological questions in their professional activities (such as practice, disease control, scientific research and legislation) and is open to veterinarians as well as any other master degree in the field of biomedical sciences or bioengineering. No specific prior epidemiological or statistical knowledge is required. Although the majority of examples are from the field of veterinary medicine the course touches on all general principles of epidemiology and is therefore equally interesting to participants facing epidemiological questions in non-veterinary domains (e.g. human medicine, plant diseases, food safety, ...).



PROGRAM (3 ECTS POINTS)

OVERVIEW

SUBJECT	day	date
General introduction (J. Dewulf)	1	9/9
Data management and frequency measures (S. De Vlieghe)	1	9/9
Statistics in Epidemiology, a practical approach (I. Chantziaras)	2	10/9
Diagnostic, accuracy and precision (J. Dewulf)	3	11/9
Sample size calculations (J. Dewulf)	3	11/9
Clinical trials (D. Maes)	4	12/9
Observational studies, design and data analysis (J. Dewulf)	5	13/9
One Health Game (J. Dewulf)	5	13/9
Systematic review and meta-analysis (N. Pauwels)	6	16/9
Association and causality (J. Dewulf)	6	16/9
Questionnaire design (N. Caekebeke)	6	16/9
Monitoring and surveillance part I (G. Van Schaik)	7	17/9
Monitoring and surveillance part II (G. Van Schaik)	8	18/9
Introduction to qualitative and quantitative risk assessment part I (N. Dankittipong)	8	19/9
Introduction to qualitative and quantitative risk assessment part II (N. Dankittipong)	9	19/9
Modeling of infectious diseases Part I (G. Fournié)	9	19/9
Modeling of infectious diseases Part II (G. Fournié)	10	20/9
Outbreak Investigation and Disease control (J. Dewulf)	10	20/9

All **course days** start at 09:00 and end at 17:00

Coffee break around 10:30* and 15:00*

Lunch from 12:30-13:30*



LECTURERS

J. Dewulf (Prof, DVM, MSc, PhD, Dipl ECVPH, Dipl ECPHM)

Professor in Veterinary Epidemiology, Department of Internal Medicine, Reproduction and Population Medicine. Faculty of Veterinary Medicine, Ghent University.

S. De Vlieghe (DVM, MSc, PhD, Dipl ECVPH)

Associate Professor in Veterinary Legislation and practice management, Department of Reproduction, Obstetrics and Herd Health. Faculty of Veterinary Medicine, Ghent University.

N.S. Pauwels (PhD, MSc)

Information Specialist, Knowledge Centre for Health Ghent, Ghent University and Ghent University Hospital.

D. Maes (DVM, MSc, PhD, Dipl ECVPH, Dipl ECPHM)

Professor in Porcine Herd Health Management, Department of Reproduction, Obstetrics and Herd Health. Faculty of Veterinary Medicine, Ghent University.

N. Caekebeke (DVM, PhD)

Post-doctorate researcher, Unit of Veterinary Epidemiology, Department of Internal Medicine, Reproduction and Population Medicine. Faculty of Veterinary Medicine, Ghent University.

Chief executive officer, Biocheck.Ghent & BV, Belgium.

G. Fournié (DVM, MSc, PhD)

Senior research fellow, Veterinary Epidemiology, Economics and Public Health group, Department of Pathobiology and

Population Sciences, Royal Veterinary College, UK.

G. Van Schaik (Prof, MSc, PhD)

Professor in Monitoring and Surveillance of Farm Animal Health, Department of Farm Animal Health, Faculty of Veterinary Medicine, Utrecht University, the Netherlands.

Head of the Epidemiology group of GD Animal Health, Deventer, the Netherlands.

I. Chantziaras (Prof, DVM, PgCert, PhD, Dipl ECVPH)

Associate Professor in Veterinary Epidemiology, Department of Internal Medicine, Reproduction and Population Medicine. Faculty of Veterinary Medicine, Ghent University. Academic chair in animal Biosecurity

N. Dankittipong (MSc)

Researcher in Veterinary Epidemiology, Department of Internal Medicine, Reproduction and Population Medicine. Faculty of Veterinary Medicine, Ghent University.

REGISTRATION AND FUNDING

INFO

The course fee is €1750 for normal registration and €1600 for early registration. For PhD students, residents or interns of a European College (member of EBVS) the fee is reduced to €1300. (extra information on funding at the bottom of this page)

The registration fee for early registration includes:

- All theoretical and practical courses
- All course notes
- Coffee and lunches during all course days
- The book “Veterinary Epidemiologic Research” (Dohoo, Martin, Stryhn)

The registration fee for normal registration includes:

- All theoretical and practical courses
- All course notes
- Coffee and lunches during all course days

HOW TO REGISTER

Registration can be done at the following link

<https://forms.office.com/e/QDqgb86CZX>

Early registration is **before 04 May 2024** which will cost €1600. Normal registration is **before 01 August 2024** which will cost €1750. The subscription is only final after having paid the registration fee (you will receive an invoice after registering). Be careful since the registrations will be treated on a first come, first serve basis and the maximum number of participants is limited to 25. The payment has to be made before **31 August 2024**. After registration you will receive a password that allows you to download all course material from the website.

FUNDING

Members of the Doctoral School of life sciences and medicine (DS LSM) of Ghent University can include the course as **one of the three specialist courses** in the minimum set of activities. All PhD students that are member of the DS LSM can receive a **€500 co-funding** by the doctoral school. (final fee = €700). For funding through the DS LSM please follow the procedure as described in:

<https://www.ugent.be/doctorschools/en/doctoraltraining/courses/fundingopportunities/overview.htm>

The course is recognised **by the European College of Veterinary Public Health**. The **first 8 residents of the ECVPH** can apply for **€300 funding**. For more information, please read the [Bylaws on the refund of Residents](#).



COURSE MATERIAL

For the exercises every student is requested to bring their own **laptop**. If you do not have access to a laptop please contact us on beforehand so that we can try to find a solution.

During the course the book “**Veterinary Epidemiologic Research**” (Dohoo, Martin, Stryhn) will be used. Besides that several free-ware software packets will be demonstrated and used.

As the **statistical analysis course** is concerned, this course will give an overview of the basics of statistical concepts and hypothesis testing. The course starts with a short introduction about the different types of variables, sampling theory and the methodology of hypothesis testing. In the exercises, we focus on statistical analysis in practice using hands-on exercises on real-world datasets. The first step consists of visualization of the data, quality checking and descriptive statistics. Subsequently, we focus on statistical hypothesis testing with a strong emphasis on how to choose the right type of statistical analysis, depending on the research question, the type of the data at hand and the assumptions on the statistical tests. Students will get ample exercises to carry out this hypothesis testing, and interpret the results. The practical exercises are taught in the open source software package R. **For students not familiar with this software, we offer an online introduction to R using instruction videos and short exercises. This online material will be made available through the online learning platform VICE.**

As the **quantitative risk assessment** is concerned, the course demonstration will in in open-source R to be installed at your computer before the start of the course.

All courses will be given in **English**.





LOCATION

Veterinary Epidemiology Unit
Department of Reproduction, Obstetrics and Herd Health
Faculty of Veterinary Medicine
Ghent University
Salisburylaan 133
B-9820 MERELBEKE

HOUSING

We have made some suggestions for those of you that need housing during the summer course.

Bed and Breakfast in the neighbourhood

B&B in Merelbeke (relatively close to the Faculty of Veterinary Medicine) are:

- [La Clé du Sud](#)

Hotels in Ghent

There are plenty of hotels in Ghent. A list can be viewed [here](#). They are located in or just outside the city centre. Holiday Inn Express Gent and Campanile Gent are located relatively close to the Faculty of Veterinary Medicine.

Please note that you are asked to contact the B&B or hotels yourself and make the reservations yourself.

If you have difficulties with transport from your location towards the faculty you may contact us and we can try to find department collaborators that can provide a lift in the morning and evening.

CONTACT

[Official website](#)



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