GHENT UNIVERSITY

Course Specifications

Valid in the academic year 2021-2022

Veterinary Public Health I: General Principles and Technology (G000857)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size *(nominal values; actual values may depend on programme)*

Credits 5.0	**Study time** 150 h	**Contact hrs**	55.0 h

Course offerings in academic year 2021-2022

A (semester 2)	Dutch	Gent

Lecturers in academic year 2021-2022

Houf, Kurt	DI07	lecturer-in-charge
Maes, Dominiek	DI08	co-lecturer
Opsomer, Geert	DI08	co-lecturer

Offered in the following programmes in 2021-2022	**crdts**	**offering**
Bachelor of Science in Veterinary Medicine	5	A

Teaching languages

Dutch

Keywords

veterinary public health, food safety, hazards, farm to fork, food production, quality systems, control, animal welfare, technology, food of animal origin

Position of the course

This course aims to familiarize students with the food production chain and to teach the tasks and responsibilities of the veterinarian in food safety monitoring. The course is the first step in the training in veterinary public health, and the content serves as the basis for the more in-depth knowledge in the courses VVG II, VVG III, VVG IV and VVG V. In the practical exercises, the students are familiarized with the different food products of animal origin.

Contents

I. theoretical part - content: a mix of on-campus and on-line lectures

Content

The theoretical part is made up of 4 parts, which covers the entire production chain, from farm to consumer (primary and transformation and distribution phase). It provides insight into the organization and functioning of veterinary public health within the three successive phases of the food production chain, and discusses the specific tasks and responsibilities of the veterinarian in general, including animal welfare in the transformation phase.
The different topics per part are listed below.

PART 1. Veterinary public health (2h30, 2 lessons of 1h 15min - K. Houf)

Overview of the organization, tasks and definition of important concepts and concepts within veterinary public health, and the responsibilities of the veterinarian

PART 2. Primary phase (10 hours, 8 lessons of 1 h 15 min - D. Maes & G. Opsomer)

- structure and organization of the primary production chain (cattle, pigs, poultry)
- importance of health status general use of veterinary medicines and consequences
- points of attention for the most important zoonoses and food pathogens

- points of attention in animal welfare in the primary phase
- importance of farm guidance epidemiologicalsurveillance and the legal framework for the veterinarian on livestock farms
- obligations and guarantees by the veterinarian

PART 3. Transformation phase in the slaughterhouse (15h, 12 lessons 1h 15 min - K. Houf)

3.1. - organization of the slaughterhouse
- organization of a slaughterhouse for ruminants and horses
- organization of a slaughterhouse for pigs
- organization of a slaughterhouse for poultry and rabbits
- overview of the duties and responsibilities of the veterinarian

3.2. - animal welfare in the transformation phase
- history of animal welfare in animal slaughter
- situation and content of European and national legislation
- overview and use of the stunning methods
- evaluation of animal welfare in the transformation phase

Part 4. Transformation in the cutting plant and food production

4.1. - Distribution phase (2h30, 2 lessons of 1 h 15 min - K. Houf)
- organization of the distribution phase
- overview of the duties and responsibilities of the veterinarian
- classification of food products based on product type

4.2. - Food technology (20h - 16 lessons of 1h 15 min - K. Houf)

This section discusses the main technological processes in the food industry. After an introduction to the principles of the control of raw materials, the operation and application of the various additives are discussed, and extensive attention is paid to technologies such as:
- drying
- salting and brining
- heating
- smoking
- fermenting

The application of these technologies and their influence on food safety is mainly on foodstuffs of animal origin, but also on other food, if relevant. This section concludes with a discussion of the different packaging methods.
Finally, for the large groups of meat product types, the production process is taught and the critical steps are identified.

II. Practical part : Product knowledge (5 hours) - online learning module

The practical exercises are built up in e-learning based sessions in which the recognition and safety of edibles of animal origin (meat, dairy, eggs, honey, fish, insects and game) are taught.

Initial competences

No specific prior knowledge is required. The course starts the discussion of food safety from the basic level. Admission of this course must correspond to the applicable GIT rules of the academic year in which the course is taken.

For students only enrolled in a credit target contract, enrollment is only possible after complying with the final competences of the first bachelor.

Final competences

1 explain the organization of the different phases in the food chain
2 to be able to explain and critically approach the responsibilities and tasks of the veterinarian in the different phases of the food production chain
3 assessing the behavior of farm animals in the primary and transformation phases
4 recognizing foods and assessing food safety risks for the consumer
5 continuously adjust and improve one's own professional thinking and actions
6 understand the importance of interdisciplinary cooperation
7 be aware of changes and new focus in the profession, be able to frame the expected challenges in veterinary public health in the near future
8 evaluate the risks to public health based on the production process
9 be able to derive and evaluate the production process based on the list of ingredients

10 applying the hurdles concept to the technological process

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

Access to this course unit via an exam contract is unrestricted

Teaching methods

Lecture, lecture: plenary exercises, lecture: response lecture, online lecture, online seminar: coached exercises

Extra information on the teaching methods

In the lectures, ppt slides are used, as well as lots of photos and film material

Learning materials and price

The learning material consists of syllabi, lecture notes, reference textbooks and scientific publications, electronic information sources

References

A list of text books is available

Course content-related study coaching

Support is offered and provided via Ufora (agenda, ufora tools: frequently asked questions, additional teaching materials, learning paths), as well as personal guidance: via email or (after appointment) via Microsoft teams or Skype.

Evaluation methods

end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period

Written examination with open questions, written examination with multiple choice questions

Examination methods in case of periodic evaluation during the second examination period

Written examination with open questions, written examination with multiple choice questions

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation

not applicable

Extra information on the examination methods

Exam content consists of the subject topics discussed during the lectures and the content of the practical exercises. Emphasis is on the understanding and being able to apply concepts and tasks of the DA in veterinary public health, and the independent assessment of production processes. Recognition of foods, learned in the practical, will be evaluated during the written exam

Calculation of the examination mark

Each of the 4 parts of the theoretical part is included in the written exam, whereby the points for each part are recorded for each question. The practical part (product knowledge) is tested during the written exam and is an integral part of the series of questions.
The score of the theoretical part is calculated as follows: for each part, a score is calculated as the sum of the points obtained for the questions of each separate part (1-4). The scores obtained on parts 1, 3 and 4 are added together and make up 80% of the final score on the theoretical part. The score of part 2 (primary phase) counts in itself as 20% of the final score of the theoretical part. The final score on the theoretical part is finally converted to a score out of 20.
The score for the practical part is calculated as the sum of the points obtained per question, and converted into a final score for the practical part to the number of points achieved out of 20.
The final score for the course (out of 20) is calculated as 90% of the score obtained on the theoretical part (calculated as described above) and 10% of the score obtained on the practical part.
A minimum of 8 out of 20 must be achieved on each of the two components (I. theory and II. practical exercises). In the event that less than 8 out of 20 is obtained for one component, no credit is awarded for the course: in the event that less than 8 is obtained on one of the two components, but where a final score of 10 or more is obtained, the final score is reduced to 9.

Facilities for Working Students

Webinars can be made available by appointment.