

Syllabus

BI1078.1 Veterinary infection biology, parasitology and mycology, 15.0 credits

Veterinärmedicinsk infektionsbiologi, parasitologi och mykologi

The course is given Animal Science - Master's Programme and Agricultural Science Programme - Animal Science (270 hec)

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

7 May 2009

The version applies to students admitted from spring 2009 to spring 2013

The version is not a module version

Subjects

Biology/Animal science

Education cycle

Second cycle

Modules

Title	Code	Credits
Single module	0101	15.0

Advanced study in the main field

Second cycle, has only first-cycle course/s as entry requirements (A1N)

Grading scale

5:Pass with Distinction, 4:Pass with Credit, 3:Pass, U:Fail

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

English

Prior knowledge

BSc degree equivalent to 180 credits in biology, biomedicine, biotechnology, pharmacy, pharmaceutical biosciences, pharmaceutical chemistry, medical biosciences, agronomy, animal science, veterinary medicine, animal care or the equivalent. English skills equivalent to English B from upper secondary school.

Objectives

The course aims to give in-depth knowledge of infectious diseases and infectious agents affecting domestic animals, sport animals and companion animals. Further the course aims to give a comprehensive knowledge of disease mechanisms on individual- and cellular level with the focus on interactions between the infectious agents and the immune system of the animal host.

After the course the students should be able:

- * to describe structure, function, lifecycle and pathogenic capacity of the most important parasitic protozoans, helminths and arthropods in domestic animals and man.
- * to describe general principles for prophylaxis and treatment of parasitic infections
- * to describe pathogenic capacity of microfungi
- * to describe mechanisms regulating the interaction between the immune defense of the animal and microorganisms of importance for veterinary medicine and describe how these can modulate and evade the immune defense.
- * to describe principles and problems in veterinary diagnostics and surveillance of infectious agents and their way of transmission between animals
- * to describe what specific problems and solutions are involved in the vaccination against diseases of veterinary importance and to describe various vaccine technologies used
- * to describe structure, function, lifecycle and pathogenic capacity of microorganism causing infectious diseases of great veterinary importance
- * independently compile and critically analyse information from relevant literature regarding a given subject and present the results orally as well as written in English.

Content

The course is divided into three sections: Parasitology, 5 credits, Mycology, 3 credits, and Veterinary infection biology, 7 credits

Lectures in Parasitology include occurrence and classification of various protozoans, helminths and arthropods. Their lifecycle, structure, biology and their way to transmit and how different parasites interact with the host animal immune system will be discussed.

Lectures and exercises will consider basic biology of microfungi, pathogenic fungi mycotoxins and preventive measures.

The lectures in veterinary infection biology will comprise interactions between the immune defense of the animal and microorganisms of importance for veterinary medicine and how these modulate and evade the immune defense and their adaption to the host animal. Further lectures will deal with the importance of the immune system in maintaining a good animal health and important vaccine prophylaxis to animal diseases. Microorganisms causing important diseases in Veterinary medicine and food safety will be described.

Practical exercises on methods used to study, diagnose and/or detect various infectious agents will be performed.

Implementation

Scheduled activities

Lectures

approx. 60 Hours

Laboratory work

approx. 45 Hours

Compulsory

Exercises

approx. 90 Hours

Supervision and presentation of project work

approx. 45 Hours

Compulsory

Examination and evaluation

approx. 20 Hours

Individual studies, not scheduled

Individual tasks

approx. 140 Hours

Total

approx. 400 Hours

Formats and requirements for examination

Oral and written examinations of different parts and presentations of tasks.

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Additional information

The Section of Parasitology, 5 credits is an elective course in the Master Programme in Animal Science at SLU

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Responsible department

Department of Biomedical Sciences and Veterinary Public Health

Supplementary Information

Finalized by: Grundutbildningsnämnden, Fakulteten för veterinärmedicin och husdjursvetenskap

Biology Area: Other Biology Courses