# **Linnæus University**



# Course syllabus

Faculty of Health and Life Sciences

Department of Chemistry and Biomedical Sciences

2BK013 Farmakoterapi vid sjukdomar hos djur, 4,5 högskolepoäng 2BK013 Pharmacotherapy of Diseases in Animals, 4.5 credits

Main field of study Pharmacy, Biomedical Science

Subject Group Medicine

**Level of classification** First Level

**Progression** G2F

**Date of Ratification** Approved 2011-06-29 Revised 2017-06-15 by Faculty of Health and Life Sciences. The course syllabus is valid from autumn semester 2017

#### Prerequisites

General Chemistry, 7.5 credits, Cell Biology, 15 credits, Organic chemistry, 7.5 credits, Biochemistry, 15 credits, Pharmaceutics, 7.5 credits, Anatomy and Physiology, 15 credits, Clinical Microbiology, 7.5 credits, and Clinical Immunology, 7.5 credits, or the equivalent, and Basic Pharmacotherapy, 9 credits, or the equivalent, or a degree of bachelor of science in pharmacy or the equivalent.

# Objectives

After completing the course, the student should be able to:

- explain pharmacotherapy for diseases in animals kept for food production and companionship, including sport horses
- present diseases in animals that can be treated with non-prescription drugs
- outline treatment strategies to prevent the development of antibiotic resistance
- present the Swedish Board of Agriculture's regulations on pharmaceuticals and the use of pharmaceuticals
- provide information about pharmaceuticals using FASS VET.

# Content

- The anatomy and physiology of different animals.
- Administration of medications to different animals.
- Pharmacotherapy for common diseases in our production animals (cattle, horses, sheep, pigs, and poultry) as well as in our companion animals (horses, dogs, and cats); non-prescription and prescription drugs).
- Treatment strategies to prevent the development of antibiotic resistance.
- Animal health professionals who is authorised to prescribe medications?
- Withdrawal periods for food production. Clearance times for animals in competition.
- Basic pharmacokinetics for different types of animals.
- Basic pharmacodynamics in animal treatment.
- Utilising FASS VET.

#### Type of Instruction

Instruction is delivered in the form of lectures and, in applicable cases, group discussions.

#### Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

The course is examined through a written examination at the end of the course. A first resit examination is offered within six academic weeks following the regular examination date.

The grading criteria for the grade Pass are based on the course objectives (see above).

#### **Course Evaluation**

During or shortly after the course, a course evaluation should be conducted. The result and analysis of the course evaluation should be promptly communicated to the students who have taken the course. Students who are taking the course when it is offered the next time should be informed of the result at the course introduction. The course evaluation is anonymous.

#### Other

Access to the internet, a webcam, loudspeakers, and a microphone (alternatively a headset) is required.

### Required Reading and Additional Study Material

FASS Djurläkemedel, www.fass.se

Jordbruksverkets föreskrifter om läkemedel och läkemedelsanvändning. (SJVFS 2013:42; SJVFS 2015:32)

Jordbruksverkets föreskrifter och allmänna råd om behörigheter för djurhälsopersonal (SJVFS 2016:9)

*Livsmedelsverkets föreskrifter om karenstider*. (LIVSFS 2009:3, reprint LIVSFS 2012:8)

Rang. H.P., Dale, M.M., Ritter, J.M., & Flower, R.J. *Rang and Dale's Pharmacology*. Churchill Livingstone, the latest edition.

Williams, D. A. *Foye's Principles of Medicinal Chemistry*. Lippincott Williams and Wilkins. The latest edition.