



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PVS0059 Comparative Lactation Biology, 3.0 credits

Syllabus approved

2010-08-30

Subjects

Animal Science/Biology

Education cycle

Third cycle

Grading scale

Pass / Failed

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

MSc degree in animal science, biology, medicine, nursing or equivalent degree including basic mammalian physiology.

Objective, including learning outcomes

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

- Explain the anatomy and physiology of the breast/udder and mammary gland

and compare species in this regard.

- Explain and discuss the physiology and regulation of milk synthesis including mammatogenesis and vascularization of the mammary tissue.
- Describe the interaction between the mammary gland and the offspring, milker and milking technique regarding physiology of milk ejection and emptying of the gland in different species.
- Describe the most common pathogens and health problems that affect the lactating breast/udder in different species.
- Describe and discuss available methodology in lactation research.
- Discuss new findings in lactation research in relation to their own research projects.

Content

The course covers breast/udder anatomy, breast/udder physiology, milk synthesis, milk ejection, breast/udder health, milking techniques and milking equipment. Milk composition is described as an effect of feeding-, milking- and management routines. The course is comparative across humans and animals, including both dairy animals and laboratory animals.

The course starts with mammary gland anatomy, basic lectures in anatomy, physiology and milk ejection and introduction of a course project. Advanced and applied aspects are covered by participation in the CRU symposium "LACTATION RESEARCH IN MAMMALS AND HUMANS". After the symposium the course participants will finish and present the course project.

Requirements for examination

Participation with an abstract in the CRU lactation symposium. Active attendance during the course days including finishing the course project.

Additional information

The course requires students' presence in Uppsala.

Responsible department

Department of Anatomy, Physiology and Biochemistry