



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLUkurs

Syllabus

PVS0070 Biology of lactation, 10.0 credits

Syllabus approved

2011-11-23

Subjects

Animal Science

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

Postgraduate student in Animal Science or similar. See also "Additional information".

Objective, including learning outcomes

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

- explain the physiology of the udder and of milk synthesis
- explain the importance of genotype for milk composition and milk quality and how milk quality and milk process ability is affected by feeding, management and milking routines
- describe the interaction between biology and technology regarding milking
- describe the most common pathogens and health problems that affect the lactating udder
- describe and suggest different methods used to determine milk quality
- on the basis of knowledge in biology of lactation assess and evaluate milking techniques, management routines related to milking and general management of lactating animals in order to optimise production, milk quality and animal health.

Content

The course covers udder anatomy, udder physiology, milk synthesis, milk ejection, udder health, management routines, milking techniques, milking equipment and genetic aspects on milk production. Milk composition is described as an effect of feeding-, milking- and management routines, breeding, milk chemistry and milk analyses. The course is comparative across different dairy species like cows, buffaloes, goats, sheep and camels.

The first part of the course offers lectures, demonstrations and study tours covering the different topics included in the course. This period requires students' presence in Uppsala. During the second part of the course the students will write literature reviews and some of this work can be done away from Uppsala. In the end of the course the literature reviews are presented and discussed and student attendance is required for this part.

Requirements for examination

Passed written and oral examination. Approved reporting of project work and approval of compulsory components of the course.

Additional information

This is an advanced MSc course open also for PhD students. It is recommended that the student has knowledge equivalent to 15 credits within "animal physiology".

Responsible department

Department of Animal Nutrition and Management