

Study Program: OAS Animal Science
Course Unit Title: Reproduction of Domestic Animals
Course Unit Code:
Name of Lecturer(s): Dragin B. Saša
Type and Level of Studies: Bachelor Studies
Course Status (compulsory/elective): Compulsory
Semester (winter/summer):
Language of instruction: Serbian
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 6
Prerequisites: Passed courses: Animal Physiology and The Basics of Animal Nutrition
<p>Course Aims: Detailed modern theoretical and practical knowledge in the field of reproduction physiology, biotechnological methods of controlling reproductive processes, as well as reproductive technologies for breeding certain types of domestic mammals (horses, cattle, sheep, goats and pigs), as well as basic types of poultry (chickens, geese, ducks and turkeys). Application of this knowledge for understanding and practical solving of problems of other related disciplines of animal science and practice.</p>
<p>Learning Outcomes: Student's ability to independently apply modern biotechnological methods for managing the reproductive functions of domestic mammals and birds. Application of optimal technologies of reproductive exploitation of domestic animals, in certain conditions and technological systems of livestock production. Ability to make an independent assessment of the success of production and to solve the problems of reproduction of domestic animals on its own. Ability to, after the completion of the studies, successfully transfere aquired knowledge to other people, as well as to acquire the conditions for continuing studies at higher levels of education in the field of biotechnological sciences.</p>
<p>Syllabus:</p> <p>Theory: A. General reproduction physiology of domestic mammals: Endocrine regulation of reproductive functions; Functional morphology and histology of male and female sex organs; Physiology of female sexual functions; Physiology of male full functions. B. Special reproduction physiology of certain types of domestic mammals and livestock: reproduction of cattle; reproduction of sheep and goats; reproduction of pigs; reproduction of horses; reproduction of domestic species of birds. B. Biotechnology of reproduction: artificial insemination of cattle, pigs, sheep, goats and horses; embryo transplantation; manipulation with gametes and early embryos in vitro; estrus induction; superovulation induction; induction and synchronization of estrus beyond the season of mating of sheep, goats and mares; synchronized particle induction; Diagnosis of gravity; Determination of sex of gametes and embryos.</p> <p>Practice: a) Laboratory practices: Anatomy and histology of male and female sex organs; Endocrine reproduction; Quality control of sperm; Dilution of sperm and formation of insemination doses; Methods of ester detection; Development of fetus and structure of fetal envelopes; Methods of diagnosis of gravidity; Help with normal part; Analysis and assessment</p>

of the reproductive efficacy of the zeta.

b) Field exercises: They are carried out on livestock farms and experimental facilities of the Department of Animal Husbandry, and include: Accommodation and food systems for certain categories of domestic animals; Artificial insemination of certain species of domestic animals; Hygiene and health protection of certain categories of breeding animals.

Required Reading:

1) Stančić B.: **Reproduction of domestic animals (textbook). Faculty of Agriculture, Novi Sad, 2008.**

2) Dragin S., Stančić I., Erdeljan M.: **Reproduction of domestic animals (practical book), Faculty of Agriculture, Novi Sad, 2011.**

3) Stančić B.: **Technology of Artificial Insemination of pigs (handbook). Faculty of Agriculture, Novi Sad, 2006.**

4) Dragin S., Stančić I., Jotanović S.: **Biotechnology in reproduction of animals (textbook), Faculty of Agriculture, Novi Sad, 2016.**

Weekly Contact Hours: 90

Lectures: 60

Practical work: 30

Teaching Methods: Oral presentation, slides, ppt-presentation, overview of preparations, practical work in the laboratory and on farms, consultations, seminar papers.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	
Practical work	5	oral exam	50
Preliminary exam(s)	20	
Seminar(s)	20		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.