

Study programme: Zootechnics				
Type and level of study: Bachelor's degree (240 ECTS) – First cycle				
Course title: Animal reproduction				
Lecturer: Prof. Radojica Đoković, PhD				
Language of instruction: English				
ECTS credits: 6				
Prerequisite:				
Semester: <i>summer</i>				
Course objective				
To provide fundamental knowledge relevant to the physiology of reproduction of farm animals; use of hormones in animal reproduction; physiology and pathology of gestation; fundamentals of obstetrics; pathology of parturition, the mammary gland and newborns; sterility and artificial insemination of farm animals.				
Learning outcomes				
Theoretical and practical basis for improvement in the reproduction of female farm animals through the use of synthetic hormones, particularly in oestrus induction and synchronisation, as well as in sterility treatment. Proper understanding of the physiology and pathology of: gestation and puerperium in female animals; newborns; and the mammary gland. Particular attention will be given to providing basic knowledge on the prevention, diagnosis and treatment of functional, nutritional and infectious sterility in females and male sterility. Basic principles of semen collection, preparation and preservation, and fundamentals of artificial insemination in female animals as a key biotechnical and biotechnological method used to enhance reproductive and productive performance and overall production profitability in farm animals.				
Course contents				
<i>Theoretical instruction</i>				
Anatomy and physiology of reproduction in farm animals; Male and female sex hormones and other hormones related to reproduction; use of synthetic hormones in the reproduction of farm animals; Physiology and pathology of gestation, parturition, newborns and the mammary gland; Sterility; Artificial insemination in cows, sheep, goats, sows, mares, bitches, birds, fish, queen bees, laboratory and other animals.				
<i>Practical instruction</i>				
Anatomy of reproductive organs; Synthetic hormones used in clinical practice; Oestrus induction and synchronisation; Clinical examination of the female reproductive organs, pregnancy diagnosis in animals (clinical and laboratory); Clinical and laboratory methods for the diagnosis of sterility; Diagnosis of mastitis in farm animals (California mastitis test CMT); Semen collection, examination and evaluation, semen dilution, semen preservation (artificial insemination centres); Insemination methods in farm animals.				
Recommended reading				
Cupps T.P. (1987): Reproduction of domestic animals. Fourth edition, University of California, Davis, USA. Academic Press inc. Harcourt Brace Jovanovich publisher, San Diego, New York, Boston, Toronto, London, Sydney, Tokyo, (textbook). ISBN-13: 978-0121965754 ISBN-10: 0121965759.				
Scatten H., Constantinescu G. (2007): Comparative Reproductive Biology. Blackwell Publishing, Ames Iowa, USA. ISBN 978-0-8138-1554-1.				
Ian R.G. (2005): Reproductive technologies in farm animals. CabiPublishing,USA,UK., ISBN 0 85199 862 3.				
Manafi M. (2011): Artificial insemination in farm animals. Copyright InTech-2011. ISBN 978-2-36703-002-9.				
Hours of active teaching				Other classes
Lectures: 3x15=45	Practicals:	Other forms of teaching Tutorials 2x15=30	Individual work:	
Teaching methods				
Lectures, practicals (practice room and field work), interactive teaching, progress tests, midterm tests, individual work, oral examination				

Assessment (maximum points 100)			
Examination requirements	Points	Final examination	Points
Class participation	20	oral examination	
Practical sessions/tests	30	written examination	50
Term paper assignments/homework		
Project			
Other			
Grading system			
Grade	ECTS	Description	
10	91-100	Excellent	
9	81-90	Exceptionally good	
8	71-80	Very good	
7	61-70	Good	
6	51-60	Passing	
5	≤50	Failing	