

BIOLOGY OF LABORATORY ANIMALS

Study program	Veterinary Medicine
Year of study	I
Semester	I
Regime of discipline	DOB
Category of discipline	DF
Number of lectures hours per week	1
Number of seminar/laboratory/project hours per week	1
Total number of hours according to the curriculum: lectures/seminars/laboratory/project	14 hours of course/14 hours of laboratory
Number of transferable credits	3

SPECIFIC SKILLS

Professional Competence	<p>C5 - Discipline ensures the learning by the students of the biology (particularities of anatomy, physiology, reproduction, behavior) and maintenance requirements of the main species of laboratory animals (mouse, rat, guinea pig, hamster, rabbit, gerbil)</p> <p>C6 Also, the discipline ensures the formation of the skills (practical abilities) regarding the handling and restraint of the laboratory animals for their examination to establish the diagnosis orientation and testing of some products</p>
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LEARNING OUTCOMES

Knowledge	The particularities of anatomy, physiology, reproduction, behavior of laboratory animals and the maintenance requirements of the main species
Skills	Handling and restraint of the laboratory animals
Responsibility and autonomy	Professional development skills for activation in laboratory animal science.

COURSE OBJECTIVES

General objective of the course	The overall goal of discipline is the training of professional and transversal competences graduate studies program, closely aligned with the objectives of the curriculum, to ensure the development of knowledge in laboratory animal science closely related biomedical sciences.
Specific objectives	<ul style="list-style-type: none"> • Course objectives aimed at knowledge and understanding of the biology of laboratory animals, the requirements of each species, and regulations regarding their use in experiments and for teaching • Objectives aimed at explaining and interpreting the requirements of the main species of animals for care, maintenance, and use in experiments and teaching • The applicative aim of the discipline is to make students to acquire the manipulative maneuvers and restricting animal laboratory to carry out medical actions • Attitudinal discipline aim is to make students acquire the ethics of using laboratory animal

COURSE CONTENT

LECTURES	Number of hours
Topic no. 1 The importance of laboratory animals for research and biomedical diagnosis. Aspects of laboratory animal legislation	2
Topic no. 2 Laboratory mouse: taxonomy, main lines of laboratory mice, anatomical and physiological characters, growth and maintenance requirements	2
Topic no. 3 Laboratory rat: taxonomy, main lines of laboratory rat, anatomical and physiological characters, growth and maintenance requirements	2
Topic no. 4 Guinea pig: taxonomy, main lines, anatomical and physiological characters, growth and maintenance requirements	2
Topic no. 5 Hamster: taxonomy, main lines, anatomical and physiological characters, growth and maintenance requirements	2
Topic no. 6 Laboratory rabbit: taxonomy, main lines, anatomical and physiological	2

characters, growth and maintenance requirements

Topic no. 7 Gerbils: taxonomy, main lines, anatomical and physiological characters, growth and maintenance requirements	2
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SEMINAR/LABORATORY	Number of hours
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Topic no. 1 Safety rules for specific activity in laboratory animals facilities. Organization and management of the laboratory animal facilities. Presentation of different systems maintenance of laboratory animals	2
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Topic no. 2 Presentation of the biology, behavior and maintenance requirements in the main laboratory animal species (mouse, rat, guinea pig, rabbit, hamster, gerbil).	2
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Topic no. 3 Presentation of the biology, behavior and maintenance requirements in the main laboratory animal species (pig, rabbit).	2
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Topic no. 4 Presentation of the biology, behavior and maintenance requirements in the main laboratory animal species (hamster, gerbil).	2
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Topic no. 5 Identification of laboratory animals. Determining the age of laboratory animals and sexing them.	2
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Topic no. 6 Handling of laboratory animals (mouse, rat, guinea pig, rabbit, hamster, gerbil).	2
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Topic no. 7 Methods of restraining of laboratory animals (mouse, rat, guinea pig, rabbit, hamster, gerbil).	2
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BIBLIOGRAPHY:

- Suckow M. A., Danneman Peggy, Brayton C. – The Laboratory Mouse, A Volume in The Laboratory Animal Pocket References Series, CRC Press LCC, USA, 2001.
- *** Guide for the Care and use of Laboratory Animals, National Research Council, National Academic Press, Washington, D.C.,USA, 1996

ASSESSMENT

Activity type	Assessment criteria	Assessment methods	Percentage of final grade
Lectures	Communication of information using scientific language correctly, specialty, circulated within the discipline / scientific field concerned;	Exam - 2 subjects	60%
	Knowledge of basic concepts and explain their discipline interdependencies between them;		
	Demonstration of coherent thinking, scientific, logical, the exposure of ideas, theories, laws, and the ability to apply theoretical knowledge to solve practical problems.		
Seminar/laboratory/clinical sessions	Acquisitions application to provide examples in conducting analyzes in solving exercises and problems, supporting arguments, and so on;	Periodic evaluation (through oral evaluation tests / written / practical) and presentations, individual	30%
Other activities	Presence on course and the seminar		10%

Course coordinator: Prof. PhD Ileana NICHITA

Practical activities coordinator L/S/P: S. Lect. PhD Iulia BUCUR