

COURSE OUTLINE “PRINCIPLES OF LABORATORY ANIMAL MANAGEMENT”

1. GENERAL

SCHOOL	HEALTH SCIENCES		
DEPARTMENT	MOLECULAR BIOLOGY AND GENETICS		
STUDY LEVEL	ISCED LEVEL 6		
COURSE CODE	MBG511	SEMESTER	5 th
COURSE TITLE	PRINCIPLES OF LABORATORY ANIMAL MANAGEMENT		
TEACHING ACTIVITIES <i>In case credits are awarded to individual components of the course eg. Lectures, laboratory practicals, etc. If credit units are awarded for the whole course, indicate the weekly teaching hours and total credits</i>	HOURS/WEEK	ECTS CREDITS	
	2	3	
COURSE TYPE <i>General, Background, Scientific field course, Expertise Course, Skills Development etc</i>	BACKGROUND		
PREREQUISITE COURSES:	NO		
LANGUAGE OF TEACHING AND EXAMINATIONS:	GREEK		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)	https://eclass.duth.gr/courses/ALEX01151/		

2. LEARNING OUTCOMES

<p>Learning outcomes Describe the learning outcomes of the course, the specific knowledge, skills and competencies that students will acquire after successfully completing the course. Refer to Appendix A.</p> <ul style="list-style-type: none"> • Description of learning outcomes for the course according to the level of study - refer to the European Higher Education Area Qualifications Framework • Descriptive Indicators of Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Annex B Curriculum Vitae Summary Guide 		
<p>Objectives of the course:</p> <ol style="list-style-type: none"> To introduce students to the basic principles of Laboratory Animal Science, to provide students with general information on the management of a laboratory animal facility, and to provide students with species-specific information on biology, husbandry, anesthesia, euthanasia and non-surgical experimental procedures of laboratory animals. <p>After successful completion of the course, students will:</p> <ul style="list-style-type: none"> • have acquired knowledge on basic principles of Laboratory Animal Science and on species-specific biology, handling, substances administration, collection of biologic material, anesthesia and euthanasia of the most commonly used laboratory animal species. • have completed practical training on restraining and handling techniques, substances administration, blood collection, anesthesia, euthanasia and necropsy of small laboratory animals • be able to understand special requirements on laboratory animal handling, substances administration, as well as calculation and administration of anesthetics 		
<p>General Competencies Which of the general competencies that the student will have acquired on the completion of the studies (see also the Diploma Supplement and below) are relevant to this course?</p> <table style="width: 100%; border: none;"> <tr> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> Research, analysis and synthesize of data and information, using the necessary technologies Adaptation to new situations Decision making Autonomous work Team work Work in an international environment </td> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> Work in an interdisciplinary environment Production of new research ideas Project design and management Respect for diversity and multiculturalism Respect for the natural environment Development of social, professional and moral responsibility and gender sensitivity Promotion of free, creative and inductive thinking </td> </tr> </table> <p>Research, analysis and synthesize of data and information, using the necessary technologies Autonomous work</p>	<ul style="list-style-type: none"> Research, analysis and synthesize of data and information, using the necessary technologies Adaptation to new situations Decision making Autonomous work Team work Work in an international environment 	<ul style="list-style-type: none"> Work in an interdisciplinary environment Production of new research ideas Project design and management Respect for diversity and multiculturalism Respect for the natural environment Development of social, professional and moral responsibility and gender sensitivity Promotion of free, creative and inductive thinking
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Team work
 Production of new research ideas
 Promotion of free, creative and inductive thinking

3. COURSE CONTENT

1. The use of animals in biomedical research, Code of Ethics and Deontology on the use of animals in experiments
2. Alternative methods, Legislation
3. Basic principles of laboratory animal husbandry
4. Administration of drugs and other substances
5. Collection of body fluids
6. Anesthesia, Recognition and treatment of pain and distress
7. Euthanasia, Health monitoring, Methodology of examination
8. Zoonoses
9. Rabbit (biology, husbandry, handling, restrain, administration of substances, body fluid collection, anesthesia, euthanasia)
10. Mouse, rat (biology, husbandry, handling, restrain, administration of substances, body fluid collection, anesthesia, euthanasia)
11. Hamster, guinea pig, carnivores, ungulates (biology, husbandry, handling, restrain, administration of substances, body fluid collection, anesthesia, euthanasia)
12. Demonstration of live rabbits (handling, restraining, administration of substances, blood collection, euthanasia, anatomy)
13. Demonstration of live mice and rats (handling, restraining, administration of substances, blood collection, euthanasia, anatomy)

4. TEACHING and LEARNING METHODS - EVALUATION

TYPE OF TRAINING <i>Face-to-face, Distance learning, etc..</i>	Face to face Lectures using slides, videos Laboratories – practical training: demonstration of handling and restraining, administration of substances, blood collection, anesthesia, euthanasia and necrotomy techniques on animals. Practical training of students on live animals										
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, and in communication with the students</i>	Slides (Power Point), Videos, Study of Videos contained in DVDs enclosed in the book that is distributed to the students, e-class										
MODES OF DELIVERY <i>Describe the teaching methods in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, practicum, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Activity</th> <th style="text-align: center;">Workload/semester</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">58</td> </tr> <tr> <td>Practicum</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Study and analysis of bibliography</td> <td style="text-align: center;">22</td> </tr> <tr> <td>Course Total</td> <td style="text-align: center;">90</td> </tr> </tbody> </table>	Activity	Workload/semester	Lectures	58	Practicum	10	Study and analysis of bibliography	22	Course Total	90
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STUDENT PERFORMANCE EVALUATION <i>Describe of the methods of evaluation language, methods of evaluation, types of exams, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other. Are evaluation criteria known to the students?</i>	Language of evaluation: Greek Methods of evaluation: short answer questions (100%) The students are informed on the evaluation criteria										

5. SUGGESTED BIBLIOGRAPHY

"Principles of Laboratory Animal Handling." "Rotonda" Medical Publications, Thessaloniki, Greece,
Thessaloniki-Greece 2011, Author: Petros Ypsilantis,

ISBN: 978-960-6894-20-6

EUDOXOS code: 127429