Course Name	Code	Semester	Theory (hrs/week)	Application (hrs/week)	Laboratory (hrs/week)	ECTS
Methods of Working with Experimental Animals	ANA630	1st, 2nd, 3rd and 4th Semester	1	0	3	4
Prerequisites	No					
Course language	Turkish					
Course Type	Optional					
Learning and teaching techniques of the course	Lecture, Question-Answer, Practice - Exercise					
Course instructor(s)	Assoc. Prof. Dr. Burçin ALTINBAŞ					
Course objectives	It is aimed to apply basic practices in experimental animals within ethical frameworks, to develop in-vivo techniques, to create experimental animal models and to reveal related treatment approaches.					
Learning outcomes of the course	1- To be able to follow the current changes and developments in the field of medicine, 2- To be able to comprehend that a project idea can turn into an application that can change the world of medicine, 3- To have general knowledge about important medical discoveries, 4- To be able to choose the type of animal required when creating a project and to plan the working model.					
Resources	1- Basic Principles of Laboratory Animal Science. Prof. L. F. M. Van Zutphen, Prof. Dr. V. Baumans, Translator: Yrb. Tayfun IDE, Medipres, 2003. 2- Laboratory Animals Guide. Elif İlkay Armutak, Funda Yiğit, Nobel Medical Bookstore, 2014. 3- Experimental Animal Laboratory Techniques. Prof. Dr. Ayşe Başaran, Nisan Bookstore, 2003. 4- Experimental Animal in Biomedical Research. Prof. Dr. Berrak Ç. YEĞEN, Yüce Publications, 2005.					

Weekly Course Topics:

WEEKS	TOPICS TO BE DISCUSSED
1. Week	Historical Approach to the Study of Experimental Animals
2. Week	Basic Principles and Definitions
3. Week	Model Selection in Animal Experiments
4. Week	Anatomy of Experimental Animals
5. Week	Experimental Animal Physiology and Physiological Parameters
6. Week	Experimental Animal Physiology and Physiological Parameters
7. Week	Basic Applications in Experimental Animals (Retention and Sex Determination)
8. Week	**MIDTERM EXAM**
9. Week	Blood and Sample Collection from Experimental Animals
10. Week	Blood and Sample Collection from Experimental Animals
11. Week	Anesthesia in Experimental Animals
12. Week	Anesthesia in Experimental Animals

13. Week	Ethics of Animal Experimentation
14. Week	Blood and Sample Collection from Experimental Animals
15. Week	**FİNAL SINAVI**

Student Workload Table

Events	Number	Time	Total Workload
Lesson	14	1	14
Laboratory	14	3	42
Application			
Fieldwork			
Out-of-Class Study Time (Freelancing/Group Work/Pre-Study)	14	3	42
Presentation (Shooting videos/Preparing posters/Making Oral Presentations/Focus Group Interviews/Conducting Surveys/Observation and Report Writing)			
Seminar Preparation			
Project			
Case Study			
Role Playing, Dramatizing			
Writing an article-Criticizing			
Mid-term exams	1	1	1
Final exams	1	1	1
Total workload (hours) / 25(s)	100/25		
Ders ACT	**4**		

Evaluation System

Semester Studies	**Number**	**Contribution**
Midterm Exam	1	%40
Quiz		
Laboratory		
Application		
Fieldwork		
Course-Specific Internship (If Available)		
Assignments		
Presentation and Seminar		
Projects		
Other		
Total of Semester Studies		%40
Final Work		
Finale	1	%60
Homework		
Application		
Laboratory		
Total of Final Studies		%60

The Contribution of Semester Studies to the Success Grade		%40
The Contribution of the Final Exam to the Success Grade		%60
Sum of Success Grade		**100**

THE RELATIONSHIP BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM COMPETENCIES

No	**Program Qualifications**	**Learning Outcomes**			
		ÖÇ1	**ÖÇ2**	**ÖÇ3**	**ÖÇ4**
1	Knows the basic structure, functions and working mechanisms of organs and systems and can explain each system in detail.				
2	Describe the basic microanatomical structures and developmental processes of tissues, organs and systems in the human body.				
3	Knows the topographic layouts, surface projections and courses of organs and formations.				
4	It alone can dissect different parts of cadavers, identify organs and other structures.				
5	Radiography can describe normal anatomical structures in MRI and CT images and provide anatomical explanation for pathological conditions.				
6	Can establish, solve and develop hypotheses about anatomy by using anatomy knowledge at a high level.				
7	Can design, implement, conclude and manage an original research process related to anatomy by using appropriate technologies.	5		5	5
8	Present and publish the results of academic studies in the field of anatomy in reputable domestic and international academic environments.	5		4	5
9	Observes and teaches social, scientific and ethical values in the stages of collecting, recording, interpreting and announcing data related to the field of anatomy.	4	3	5	5
Qualification level: 1: Low, 2: Low/Medium, 3: Medium, 4: High, 5: Excellent					