UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
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Division:
Department / Clinic
Department of Forensic and State Veterinary Medicine
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Register no.:
File no: 61-24-23-191
Zagreb, 14.September 2023.

COURSE SYLLABUS

Course name: Forensic Veterinary Medicine

Academic year 2023-2024

Course leader:

Teachers: Prof Krešimir Severin

Associate teachers: assistant Magdalena Palić, univ. mag. med. vet.

First day of classes: 09.10.2023.

Last day of classes: 13.12.2023.

Start Dat	Start Tim	End Time	Subject	Group	Instructor	Room	Length
09/10/2023	10:00	11:30	p01 General overview – introduction, legal aspect	11E-1, 11E-2	Severin K.	P_sudska	1:30
10/10/2023	10:00	11:30	p02 Neglect and animal abuse Accidental, non-accidental injuries	11E-1, 11E-2	Severin K.	P_sudska	1:30
11/10/2023	10:00	11:30	p03 Forensic physical examination Forensic necropsy	11E-1, 11E-2	Severin K.	P_sudska	1:30
12/10/2023	10:00	11:30	p04 Crime scene invest Evidence collection and analysis	11E-1, 11E-2	Severin K.	P_sudska	1:30
12/10/2023	12:00	13:30	v01 Forensic aspects of postmortem changes	11E-1, 11E-2	Palic M.	P_sudska	1:30

Start Dat	Start Tim	End Time	Subject	Group	Instructor	Room	Length
16/10/2023	8:15	9:45	p05 Expert witness testimony and report writing	11E-1, 11E-2	Severin K.	P_sudska	1:30
16/10/2023	10:00	11:30	v02 Estimation of postmortem interval	11E-1, 11E-2	Palic M.	P_sudska	1:30
19/10/2023	12:00	13:30	v03 Forensic aspects of inflamm and adaptive cellular responses	11E-1, 11E-2	Palic M.	P_sudska	1:30
23/10/2023	10:00	11:30	v04 Blunt force injuries (BFI) - abrasions, contusions and lacerations	11E-1, 11E-2	Palic M.	P_sudska	1:30
25/10/2023	12:00	13:30	v05 Blunt force injuries (BFI) - Fracture/wounds healing process	11E-1, 11E-2	Palic M.	P_sudska	1:30
06/11/2023	14:00	15:30	v06 Sharp force injuries – incised wounds	11E-1, 11E-2	Severin K.	P_sudska	1:30

Start Dat	Start Tim	End Time	Subject	Group	Instructor	Room	Length
07/11/2023	11:45	13:15	v07 Bite injuries Predator attack Animal fighting	11E-1, 11E-2	Severin K.	P_sudska	1:30
08/11/2023	10:00	11:30	v08 Firearms injuries	11E-1, 11E-2	Severin K.	P_sudska	1:30
15/11/2023	12:00	13:30	v09 Asphyxia injuries - strangulation, choking and smoth.	11E-1, 11E-2	Severin K.	P_sudska	1:30
21/11/2023	8:15	9:45	v10 Physical injuries - thermal, electric, hypo/hyperthe.	11E-1, 11E-2	Severin K.	P_sudska	1:30
23/11/2023	8:15	9:45	v11 Veterinary Forensic Toxicology	11E-1, 11E-2	Severin K.	P_sudska	1:30
27/11/2023	8:15	9:45	v12 Forensic analysis of disease in farm animals	11E-1, 11E-2	Palic M.	P_sudska	1:30
29/11/2023	13:45	15:15	v13 Forensic analysis of diseases in pet and exotic anim.	11E-1, 11E-2	Severin K.	P_sudska	1:30
04/12/2023	14:15	15:45	v14 Case study - student seminars	11E-1	Palic M.	P_sudska	1:30

Activities - Forensic Veterinary Medicine

Start Dat	Start Tim	End Time	Subject	Group	Instructor	Room	Length
07/12/2023	11:00	12:30	v14 Case study – student seminars	11E-2	Palic M.	P_sudska	1:30
11/12/2023	8:15	10:30	v15 Material evidence, Biological traces DNA isolation	11E-1	Severin K.	P_sudska	2:15
11/12/2023	11:00	13:15	v15 Material evidence, Biological traces DNA isolation	11E-2	Severin K.	P_sudska	2:15
13/12/2023	8:15	11:15	v16 DNA fingerprinting, STR-PCR	11E-1	Severin K.	P_sudska	3:00
13/12/2023	12:00	15:00	v16 DNA fingerprinting, STR-PCR	11E-2	Severin K.	P_sudska	3:00
Total: 24							40:30

STUDENT OBLIGATIONS

Lecture attendance	**Attending lectures**	**3**	**6**
	6% of grade	10 lectures hours: one lecture hour is multiplied with 0.6, and a student must attend minimal 5 lecture hours	
Seminars attendance			
Practicals attendance	**Attending practicals**	**9**	**12**
	12% of grade	35 practicals hours – one practical hour is multiplied with 0.343, and a student must attend minimal 25 practical hours	
Active participation in seminars and practicals	**Participation at practicals**	**5**	**10**
	10% of grade	Each student is obliged to prepare and present seminar work (the court case from the Department's archive) which will be assessed	
	Continuous knowledge checking	**20**	**32**
	32% of grade	- first preliminary exam 10-16 points (16 question, each question is worth 1 point) - second preliminary exam 10-16 points (16 questions each question is worth 1 point)	
Final exam	**Final exam**	**24**	**40**
	40% of grade	In order to take the final exam a student must gain minimal 36 points from attending and participation at lectures and seminars and from continuous knowledge checking. Written exam form 24 to 40 points A student gets 8 questions – each correct answer is worth 5 points.	
Examination requirements	Student requirements are defined in the Regulations on the Integrated Undergraduate and Graduate Study of Veterinary Medicine. Given the above, the student must acquire a minimum number of points from all assessment elements in order to take the final exam. **Article 45:** a student can justifiably be absent from up to 50 % of the lectures; 30% of the seminars and 30 % of the exercises.		

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	27.11.2023., 11.12.2023., 15.01.2024., 5.2.2024.
Final exams (dates)	28.11.2023., 7.2.2023., 15.02.2023.,
Form of final exam	Written exam

LITERATURE

Obligatory literature	Cooper J.E., M.E. Cooper (2007): Introduction to Veterinary and Comparative Forensic Medicine, Blackwell Publishing, Oxford. Merck M.D. (2012): Veterinary Forensics: Animal Cruelty Investigations, 2nd Edition, Wiley-Blackwell Civil Obligations Act , OFFICIAL GAZETTE NO. 035/2005, 041/2008, 029/2018, 126/2021, 114/2022, 156/2022 Civil Procedure Act , OFFICIAL GAZETTE NO. 148/11 Criminal Code , OFFICIAL GAZETTE NO. 125/2011, 118/2018, 126/2019, 084/2021, 114/2022 Misdemeanour Act , OFFICIAL GAZETTE NO. 107/07
Optional literature	Munro R., H. Munro (2008): Animal Abuse and Unlawful Killing, Saunders, London.

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	Forensic veterinary medicine course is conceived in a way to introduce the student in this special field of veterinary medicine. Teaching presents students that all veterinarians deal with this part of legal medicine, not only experts in this veterinarian discipline. The goal of the course is to train students for legal medical judging of disputable cases related to animals and animal products, indicate the important procedures at a crime scene (Site visits and fieldwork) and what are the preconditions for ensuring credible material evidence. Student acquires the knowledge how to create forensic veterinary expertise and how to present their expert explanations by providing findings and opinions through the veterinary expertise and/or statements to the court or other body which seeks these services. Also students will be trained to determine pain, suffering, fear and injuries that have occurred during animal neglect, abuse or cruelty. Finally, students will be given the knowledge about responsibilities of veterinary staff during the performance of veterinary activities and most common type of professional misconduct.
Learning outcomes	• apply the acquired knowledge of veterinary medicine clinics, veterinary public health, animal production and biotechnology with newly acquired ones in the field of forensic veterinary medicine to use in veterinary medicine • positive effects on expertise and competence of future veterinary staff in dealing on requests by judicial authorities, inspection control, legal and natural persons • knowledge of formal and material legislation of Civil, Misdemeanour and Criminal Act • knowledge of the professional witness and expert witness duties in report writing and giving evidence in court • ability to investigate, collect evidence from or prepare reports about matters concerning crime scene investigation • ability to carry out forensic necropsy as full as possible, in order to ascertain the cause of death, the mechanism of death and the manner of death • ability to carry out forensic clinical examination of an animal prior to purchase or that might be the subject of a legal case • ability to estimate the value of animals relevant to legal and insurance cases • knowledge of medical-legal and forensic aspects of most important animal diseases and disorders

GRADING SCHEME

Points	Grade
Up to 59	1 (F)
60-68	2 (E)
69-76	2 (D)
77-84	3 (C)
85-92	4 (B)
93-100	5 (A)

Course leader:

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Head of Department/Clinic:

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Note: The course leader is required to submit a Course Syllabus to all teachers and associates pertaining to the Course.

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH LECTURES, SEMINARS and PRACTICALS

Type of activity	Minimum number of points	Maximum number of points
Lectures attendance	3	6
Seminar attendance	4	6
Practicals attendance	4	6
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH LECTURES and PRACTICALS

Type of activity	Minimum number of points	Maximum number of points
Lecture attendance	3	6
Practicals attendance	8	12
Active participation in practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100

GRADING AND EVALUATION OF STUDENT WORK ON COURSES WITH SEMINARS and EXCERCISES

Type of activity	Minimum number of points	Maximum number of points
Seminar / practicals attendance	11	18
Active participation in seminars and practicals	5	10
Continuous knowledge checking (mid-terms)	20	32
Final exam	24	40
TOTAL	60	100