

2023-2024

Surgery, orthopaedics and ophthalmology I

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzelova 55
Tel. 01/2390-390

Division:

Department / **Clinic for Surgery, orthopaedics and ophthalmology I**

Email: tbabic@vef.unizg.hr, mpecin@vef.unizg.hr

Register no.:

File no.:

Zagreb, 13.09.2023.



170683	REPUBLIKA HRVATSKA	
Veterinarski fakultet u Zagrebu		
Primljeno:	13.09.2023	
Klasifikacijska oznaka	Org. jed.	
605-03/23-04/28	251-61-32;	
Uredbeni broj	Prilozi	Vrijednost
251-61-21/12-23-30	0	-

COURSE SYLLABUS

Course name: **Surgery, orthopaedics and ophthalmology I**

Academic year 2023-24

Course leader: Assoc.prof. Tomislav Babić: Phd;/Prof. Mario Kreszinger; Phd

Teachers:

Associate teachers: Assoc. prof. Tomislav Babić, PhD; Prof. Dražen Matičić PhD FCA, PhD; Prof. Boris Pirkić; PhD;. Prof. Mario Kreszinger, PhD; PhD; Prof. Dražen Vnuk; PhD; Assoc. Prof. Ozren Smolec, PhD, Assoc. Prof. Nika Brkljača Bottegaro; PhD, Asst. Prof. Marko Pećin, PhD, Asst. Prof. Andrija Musulin; Petar Kostešić PhD, Valentina Plichta, PhD, Petra Dmitrović, PhD, Marija Mamić, DVM, Ana Smajlović, DVM, Mirta Vučković DVM, Niko Ivkić, DVM, Katarina Miljak DVM
Marija Lipar, PhD, Mirna Abbaffy Kirin, DVM

First day of classes: 2.10.23.

Last day of classes: 16.1.24

Activities - Surgery, orthopaedics and ophthalmology I (1/3)

Start Dat	Start Tim	End Tim	Subject	Group	Instructor	Room	Length
02/10/2023	8:15	9:45	p01 Introduction in veterinary surgery	7E-1, 7E-2	Maticic D.	P_kemija	1:30
03/10/2023	12:15	13:45	p02 Principles of surgical asepsis and antisepsis	7E-1, 7E-2	Maticic D.	P_amfiteatar	1:30
04/10/2023	14:15	15:45	p03 Premedication and sedation	7E-1, 7E-2	Musulin A.	P_amfiteatar	1:30
05/10/2023	12:15	13:45	p04 Knotting Suturing techniques and materials	7E-1, 7E-2	Kreszinger M.	P_amfiteatar	1:30
06/10/2023	8:15	9:45	p05 Bandages, dressings and drains	7E-1, 7E-2	Kreszinger M.	P_kemija	1:30
09/10/2023	8:15	15:45	v01 Practicals 1	7E-2	Nastavnici na predmetu	V_kirurgija	7:30
10/10/2023	8:15	15:45	v02 Practicals 2	7E-2	Nastavnici na predmetu	V_kirurgija	7:30
11/10/2023	8:15	15:45	v03 Practicals 3	7E-2	Nastavnici na predmetu	V_kirurgija	7:30
12/10/2023	8:15	15:45	v04 Practicals 4	7E-2	Nastavnici na predmetu	V_kirurgija	7:30

Activities - Surgery, orthopaedics and ophthalmology I (2/3)

Start Dat	Start Tim	End Tim	Subject	Group	Instructor	Room	Length
13/10/2023	8:15	15:45	v05 Practicals 5	7E-2	Nastavnici na predmetu	V_kirurgija	7:30
16/10/2023	12:15	13:45	p06 Injuries and wounds	7E-1, 7E-2	Babic T.	P_amfiteatar	1:30
17/10/2023	8:15	9:45	p07 Inhalation anaesthesia	7E-1, 7E-2	Vnuk D.	P_fiziologija	1:30
18/10/2023	12:15	13:45	p08 Local and regional analgesia	7E-1, 7E-2	Pecin M.	P_klinike	1:30
19/10/2023	8:15	9:45	p09 Wound healing	7E-1, 7E-2	Babic T.	P_klinike	1:30
20/10/2023	12:15	13:45	p10 Wound infection Burns	7E-1, 7E-2	Babic T.	P_klinike	1:30
27/11/2023	8:15	15:45	v01 Practicals 1	7E-1	Nastavnici na predmetu	V_kirurgija	7:30
28/11/2023	8:15	15:45	v02 Practicals 2	7E-1	Nastavnici na predmetu	V_kirurgija	7:30
29/11/2023	8:15	15:45	v03 Practicals 3	7E-1	Nastavnici na predmetu	V_kirurgija	7:30
30/11/2023	8:15	15:45	v04 Practicals 4	7E-1	Nastavnici na predmetu	V_kirurgija	7:30

Activities - Surgery, orthopaedics and ophthalmology I (3/3)

Start Dat	Start Tim	End Tim	Subject	Group	Instructor	Room	Length
01/12/2023	8:15	15:45	v05 Practicals 5	7E-1	Nastavnici na predmetu	V_kirurgija	7:30
04/12/2023	12:15	13:45	p11 Anaesthesia of large animals	7E-1, 7E-2	Brkljaca Bottegaro N.	P_klinike	1:30
05/12/2023	8:15	9:45	p12 The basics of reconstructive surgery	7E-1, 7E-2	Pirkic B.	P_klinike	1:30
06/12/2023	12:15	13:45	p13 Shock Fluid therapy	7E-1, 7E-2	Vnuk D.	P_klinike	1:30
07/12/2023	8:15	9:45	p14 Dentistry - small animal	7E-1, 7E-2	Maticic D.	P_klinike	1:30
08/12/2023	12:15	13:45	p15 Dentistry- large animal	7E-1, 7E-2	Brkljaca Bottegaro N.	P_klinike	1:30
08/01/2024	16:00	23:30	v06 Practicals, night 6	7E-1	Nastavnici na predmetu	V_kirurgija	7:30
16/01/2024	16:00	23:30	v06 Practicals, night 6	7E-2	Nastavnici na predmetu	V_kirurgija	7:30
Total: 27							112:30

STUDENT OBLIGATIONS

Lecture attendance	Lecture attendance During the semester student must be present on 15 hours of lectures (from the amount of 30 hours) to obtain a minimum 3 final points during the semester. Maximum obtained number of final points from this element is 6.
Seminars attendance	
Practicals attendance	Exercise (practicals) attendance During the semester student must be present on 42 hours of exercises (from amount of 60 hours) to obtain minimum 8.4 points during the semester. Maximum obtained number of points from this element is 12. Sixty hours of exercise are divided in 6 days: <ol style="list-style-type: none"> 1. 10 hours - thematic practicals- work at surgical clinic, surgical instruments, surgical asepsis and antisepsis, anesthesia principles, intensive care unit principles 2. 10 hours- thematic practicals- suture materials, suturing, knotting, bandage, drains 3. 10 hours- clinical rotation, practical work with patient 4. 10 hours- clinical rotation, practical work with patient 5. 10 hours- clinical rotation, practical work with patient 6. 10 hours- practical work with patients during night duty and /or weekend duty
Active participation in seminars and practicals	1. Active participation at the practicals Participating actively at the practicals students can gain 45 points max., what brings them 10 final points. Points for performing the following tasks: <ol style="list-style-type: none"> a) 15 points (first exercise – thematic – participation is not evaluated; second exercise – thematic – participation is not evaluated; third exercise - practical clinical work during clinical rotation - 5 points max., fourth exercise – practical clinical work during clinical rotation - 5 points max., fifth exercise – practical clinical work during clinical rotation - 5 points max., sixth exercise – practical clinical work during clinical rotation will not be evaluated, but could be replaced with practical work in extracurricular time eg. afternoon round, night round or weekend round.) = keeping records of anaesthesiologic protocols in an orderly manner. please find instructions to fill in the Anaesthesiologic protocol at MERLIN.

	<p>b) 15 points (first exercise – thematic – participation is not evaluated; second exercise – thematic – participation is not evaluated; third exercise - practical clinical work during clinical rotation - 5 points max., fourth exercise – practical clinical work during clinical rotation - 5 points max., fifth exercise – practical clinical work during clinical rotation - 5 points max., sixth exercise – practical clinical work during clinical rotation will not be evaluated, but could be replaced with practical work in extracurricular time eg. afternoon round, night round or weekend round,) = keeping records of Patient protocols in an orderly manner. please find instructions to fill in the Patient protocol at MERLIN.</p> <p>c) 15 points (first exercise – thematic – participation is not evaluated; second exercise – thematic – participation is not evaluated; third exercise - practical clinical work during clinical rotation - 5 points max., fourth exercise – practical clinical work during clinical rotation - 5 points max., fifth exercise – practical clinical work during clinical rotation - 5 points max., sixth exercise – practical clinical work during clinical rotation will not be evaluated, but could be replaced with practical work in extracurricular time eg. afternoon round, night round or weekend round,) = active participation in the work with patients.</p> <p>Students must obtain minimally 5 final points (22,5 points x coefficient 0,2222). Active participation at exercise during surgical rotation will be continuously evaluated.</p>
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.

GRADING AND EVALUATING STUDENT WORK

Continuous knowledge-checking (mid-terms)	<p>During the semester students will be checked by 3 mid term exams. Each mid term exams will contain 11 questions from following topics.</p> <ul style="list-style-type: none"> - The surgical asepsis and surgical instruments (MERLIN) - The suture materials and techniques of suturing (MERLIN) - The bandages and drains and infection of surgical patients, containing antimicrobe prophylaxis (MERLIN) <p>Within this element of valuation it is possible to obtain maximum 32 final points (33 answers x coefficient 0.9696). Student must achieve minimum of 7 points per mid term exam to obtain total of 21 points (21 x coefficient</p>
---	---

	<p>0.9696= 20 final points).</p> <p>A student who does not gain minimal 21 points during the semester from mid term exam has a right to take 2 makeup mid term exams only those which failed. A student who passes the makeup mid term exam with minimally 7 correct answers from eleven (11) has a right to take the final exam.</p>
Final exams (dates)	12.2.2024.; 22.2.2024.
Form of final exam	<p>Written and oral form. The final exam starts with a student's short analysis of results gained from the first four types of activities of attending lecture.</p> <p>Questions in the final exam will be put in a way that a student can answer in written and oral form. In the written form there will be 20 questions divided in 5 groups (20 points), 12 of which must be answered correctly in order to take the oral exam. The maximum number of points that can be gained at the oral exam is 20 points (five questions), where maximally 4 points can be gained for 1 correct answer (0-4). The minimal number of points a student must gain at the final exam is 24 (12 points minimal at written and 12 as well at oral exam). The maximal number of points on written exam together with oral exam can be 40 points. If student does not gain minimum 12 points on written exam one can not take oral exam. If student does not gain minimum 12 points in oral exam, one fails.</p> <p>The final grade from a course programme is expressed in quantity, by a numeric point-system value and by a grade adequate to its value in points, from 1 to 5. Student is marked by grade 1 in case she/he did not master the programme course successfully, in other words grade 1 means insufficient standing.</p>

LITERATURE

Obligatory literature	Theresa Fossum - Small Animal Surgery (2018.) Jorg A. Auer; John A. Stick – Equine Surgery (2018.) Ames N.K. – Noordsy's Food Animal Surgery (2014.) Grimm K.A., et al – Veterinary Anesthesia and Analgesia (2015.)
Optional literature	

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	<ol style="list-style-type: none"> 1 Introduction to surgery, organisation of work at the clinics. Premises and equipment of the surgical clinics 2 Surgical instruments 3 Procedure, approach, inhibition and refutation of surgical patients 4 History and surgical propeudeutics 5 Principles of surgical asepsis and antisepsis. Sterilization and disinfection. 6 Introduction to anaesthesiology. Premedication and sedation. Anaesthesia classification. Local and regional anaesthesia. Intravenous anaesthesia. 7 Inhalatory anaesthesia. 8 Shock: Diagnostics and treatment 9 Therapy with liquids and acid-base equilibrium 10 Disorders of coagulative mechanism and haemostasis 11 Injuries and wounds; Definition, aetiology and classification. Healing and basic principles of treatment. 12 Surgical procedures of burns, congelations and injuries caused by electricity, radiation and chemicals 13 Surgical techniques of knotting 14 Materials for stitching 15 Bandages, compresses, drainage 16 Infections and the use of antibiotics in surgery 17 Essential reconstruction surgeries (stitches, lobes, grafts)
Learning outcomes	<p>To be able independently take history, treating and restriing animal in safe and a human way and performing the whole clinical examination.</p> <p>To be ready to give his/her opinion of the other additional diagnostic examinations which are to bed one on the surgical patient.</p> <p>To be able to determine the way of treatment in postoperative period (e.g. pain controle, treatment with</p>

antibiotics, physical therapy and other what was required).

To be able to perform the surgical and anesthesiologic protocol and taking records in the book of a patient in a way understandable to his/her profession and the public.

To be able to apply correctly the principles of sterilization of surgical equipment and principles of aseptic surgery.

To be able to apply safely the sedation, local and general anesthesia and to estimate and control the pain.

To be able to recognize states indicating appropriateness of euthanasia and make it in a human way understanding the emotional state of the owner.

To take history, treating and restraining the animal in a safe and human way and perform the whole clinical examination;

to propose the other additional diagnostic examination which are needed to get objective status of the surgical patient;

to determine the way and content of treatment in postoperative period of patient;

to perform to surgical and anesthesiologic protocol and taking record in the book of patient in a way understandable to his/her profession and the public;

to apply safely the sedation, local and general anaesthesia and to estimate the control of the pain;

to recognize states indicating appropriateness of euthanasia and make it in a human way understandable to the emotional state of the owner;

to apply techniques of first aid giving in case of bleeding, wounds, burns and congelations;

to perform techniques involving workup and bandaging the wounds, immobilisation and arresting bleeding;

to assist during surgical procedures, honoring the principles of aseptic surgery;

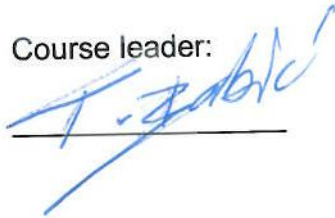
to be able to conservatively and surgically workup small wounds;

to be acquainted with basic techniques of stitching of organs and tissues and to choose adequate stitching material;

GRADING SCHEME

<i>Points</i>	<i>Grade</i>
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:



Head of Department/Clinic:



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
SEMINARS**

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
EXERCISES**

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