

UNIVERSITY OF ZAGREB
FACULTY OF VETERINARY MEDICINE
Heinzlova 55
Tel. 01/ 2390362
Division: Veterinary Public Health and Food Safety
Department / Clinic Department of Parasitology and Parasitic Diseases with Clinics
Email: albert.marinculic@gmail.com
Register no.:
File no.:
Zagreb, August 28th 2018

COURSE SYLLABUS

Course name: Parasitology and Parasitic Diseases

Academic year 2018-19

Course leader: Prof.dr.sc. Albert Marinculić

Teachers: Doc.dr.sc. Franjo Martinković

Associate teachers:

First day of classes: October 2nd 2018

Last day of classes: January 25th 2019

Timetable for LECTURES academic year 2018-2019

LECTURES				
Date	Methodological unit	Teacher	Location / time	Literature
October 2 nd 2018	INTRODUCTION TO PARASITOLOGY	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
October 4 th 2018	PROTISTA/PROTOZOA, COCCIDIOSIS OF POULTRY AND CARNIVORES, TISSUE COCCIDIA	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
October 9 th 2018	PIROPLASMOSIS, GIARDIASIS, CRYPTOSPORIDIOSIS, NEOSPOROSIS	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
October 17 th 2018	LEISHMANIASIS	Prof.dr.sc. Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011

October 25 th 2018	DISEASES CAUSED BY TREMATODES	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
October 29 th 2018	DISEASES CAUSED BY CESTODES	Doc.dr.sc Franjo Martinković	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 13-15 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
November 7 th 2018	TAPEWORMS OF CARNIVORES	Doc.dr.sc Franjo Martinković	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 13-15 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
November 16 th 2018	ECHINOCOCCOSIS, CYSTICERCOSIS	Doc.dr.sc Franjo Martinković	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 12-14 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha,N.A. Khan 2011
November 21 st 2018	INTRODUCTION NEMATODES, ASCARIDAE, ANCYLOSTOMATIDAE, OXYURIDAE	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary

			13-15 h	Parasitology, H.M. Eishekhah, N.A. Khan 2011
November 27 th 2018	TRICHOSTRONGYLIDAE, RHABDITIDAE, STRONGYLIDAE, TRICHURIDAE, CAPILLARIDAE	Doc.dr.sc Franjo Martinković	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 9-11 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekhah, N.A. Khan 2011
November 28 th 2018	TRICHINELLIDAE, DICTYOCALULIDAE, METASTRONGYLIDAE, PROTOSTRONGYLIDAE	Prof.dr.sc Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekhah, N.A. Khan 2011
December 4 th 2018	FILARIATA, SPIRURATA, ARTHROPODA-INTRODUCTION, ACARINA, IXODIDAE, ARGASIDAE	Doc.dr.sc Franjo Martinković	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekhah, N.A. Khan 2011
December 6 th 2018	SARCOPTIDAE, PSOROPTIDAE, DEMODICIDAE, CHEYLETIDAE, TROMBICIDAE	Prof.dr.sc. Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekhah, N.A. Khan 2011

December 10 th 2018	INSECTA - INTRODUCTION, MALLOPHAGA, ANOPLURA, SIPHONAPTERA, TABANIDAE, MUSCIDAE, HYPOBOSCIDAE, PSYCHODIDAE, CULICIDAE, CERATOPOGONIDAE, CIMICIDAE	Prof.dr.sc. Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha, N.A. Khan 2011
January 9 th 2018	CALLIPHORIDAE, SARCOPHAGIDAE, OESTRIDAE	Prof.dr.sc. Albert Marinculić	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Veterinary clinical parasitology, A. Zajac, G. Conboy, 2012 Essentials of Veterinary Parasitology, H.M. Eishekha, N.A. Khan 2011

Timetable for PRACTICALS academic year 2018-2019

PRACTICALS						
Date	Methodological unit	Teacher	Type of practical	Group	Location / time	Literature
October 3 rd 2018	INTRODUCTION TO PARASITOLOGY	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS	Laboratory handouts

					12-14 h	
October 5 th 2018	COCCIDIA OF POULTRY AND CARNIVORES	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 9-11 h	Laboratory handouts
October 10 th 2018	TISSUE COCCIDIA	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 13-15 h	Laboratory handouts
October 12 th 2018	BABESIA	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 16-18 h	Laboratory handouts
October 15 th 2018	GIARDIA	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts
October 17 th 2018	LEISHMANIA SPP.	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 10-12 h	Laboratory handouts
October 19 th 2018	TREMATODA	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH	Laboratory handouts

					CLINICS 8-10 h	
October 23 rd 2018	DIAGNOSTICS OF PROTOZOAL INFECTIONS	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Laboratory handouts
October 26 th 2018	DIAGNOSTICS OF TREMATODES	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 10-12 h	Laboratory handouts
October 31 st 2018	TAPEWORMS OF HERBIVORES, CANINE TAPEWORMS pt. 1	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Laboratory handouts
November 5 th 2018	CANINE TAPEWORMS pt.2 , TAPEWORM LARVAL STAGES1	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Laboratory handouts
November 8 th 2018	ECHINOCOCCOSIS, CYSTICERCOSIS	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 16-18 h	Laboratory handouts
November 14 th 2018	COPROLOGICAL PARASITOLOGICAL EXAMINATION pt.1	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC	Laboratory handouts

					DISEASES WITH CLINICS 12-14 h	
November 15 th 2018	INTRODUCTION NEMATODES, ASCARIDAE, OXYURIDAE	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Laboratory handouts
November 22 nd 2018	ANCYLOSTOMATIDAE , STRONGYLIDAE	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 13-15 h	Laboratory handouts
November 23 rd 2018	LUNGWORMS, TRICHURIS SP.	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Laboratory handouts
November 26 th 2018	TRICHOSTRONGYLIDAE, STRONGYLOIDES SPP.	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 12-14 h	Laboratory handouts
November 29 th 2018	COPROLOGICAL PARASITOLOGICAL EXAMINATION pt.2	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 10-12 h	Laboratory handouts
December 5 th 2018	DIAGNOSTICS OF TRICHINELLOSIS pt.1	Prof.dr.sc. Albert	Laboratory work	1	DEPARTMENT OF PARASITOLOGY	Laboratory handouts

		Marinculić			AND PARASITIC DISEASES WITH CLINICS 14-16 h	
December 7 th 2018	DIAGNOSTICS OF TRICHINELLOSIS pt.2 ARTIFICIAL DIGESTION	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 16-18 h	Laboratory handouts
December 11 th 2018	COPROLOGICAL PARASITOLOGICAL EXAMINATION pt.3	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 15-17 h	Laboratory handouts
December 12 th 2018	DIROFILARIA SPP.	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 8-10 h	Laboratory handouts
January 8 th 2019	HARD AND SOFT TICKS	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts
January 10 th 2019	MANGE pt.1	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts

January 11 th 2019	MANGE pt.2	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts
January 16 th 2019	BLOOD SUCKING INSECTS	Prof.dr.sc. Albert Marinculić	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 12-14 h	Laboratory handouts
January 18 th 2019	FACULTATIVE AND OBLIGATORY MYIASIS	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 12-14 h	Laboratory handouts
January 21 st 2019	VECTORS AND MOLESTANTS	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts
January 22 nd 2019	ECTOPARASITES	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS 14-16 h	Laboratory handouts
January 25 th 2019	CLINICAL DIAGNOSTICS IN PARASITOLOGY	Doc.dr.sc. Franjo Martinković	Laboratory work	1	DEPARTMENT OF PARASITOLOGY AND PARASITIC DISEASES WITH CLINICS	Laboratory handouts

STUDENT OBLIGATIONS

Lecture attendance	During the course the student must attend 15 lecture lessons.
Seminars attendance	
Practicals attendance	During the course the student must attend 40 (out of 60) exercise lessons (20 programmes out of 30 programmes).
Active participation in seminars and practicals	E student must solve the given problems from 60 exercise lessons and get a lecturers signature for the solved exercises.
Final exam	At the final exam the student answers the questions orally.
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)	During the course there will be 4 knowledge assessments with 20 questions.
Final exams (dates)	February 15 th 2018
Form of final exam	At the final exam the student answers the questions orally.

LITERATURE

Obligatory literature	Veterinary Clinical Parasitology, A. Zajac,G. Conboy,2012.	
	Essentials of Veterinary Parasitology, H.M. Eischeikha,N.A.Khan,2011	
	Focus on Small Animal Parasitology, M. Fisher, J. MacGarry,2006	
Optional literature	1. Laboratory Procedures, 2002. 4 th edition C. M. Hendrix, 2. Small animal clinical diagnosis by laboratory methods, Willard – Tvedten, 2004., 4.th edition	

OBJECTIVES AND LEARNING OUTCOMES

Course objectives	This course aims to provide core training in the theoretical and practical aspects of veterinary parasitology, covering the protozoan and metazoan parasites of animals and the vectors which transmit them, and equip students with specialised skills to enable them to pursue a career as a veterinary
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	profesional.
Learning outcomes	<p>By the end of this course students should be able to demonstrate:</p> <ul style="list-style-type: none"> • detailed knowledge and understanding of the biology, life cycles, pathogenesis, and diagnosis of parasitic infections in animals and their relevance for human health and control • detailed knowledge and understanding of the biology and strategies for control of animal parasites • carry out practical laboratory identification of parasite stages • specialised skills in: advanced diagnostic, chemotherapeutic, ecological and/or control aspects of the subject

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:

Prof.dr.sc. Albert Marinculić

Head of Department/Clinic:

Prof.dr.sc. Dagny Stojčević Jan

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