UNIVERSITÄT LEIPZIG

VMF

Faculty of Veterinary Medicine - VMF
University of Leipzig

Appendices of the Self Evaluation Report
for the European Association of Establishments for Veterinary Education
Full Visitation 15 - 19 October 2018

CONTENT

A. Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations

Reporting date for all following tables is 31 December 2017

Table 1: Professors and academic staff financed by University.
V=vacant positions, AS= academic staff

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
Centre of Pathology and Anatomy	Institute of Anatomy, Histology and Embryology	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Professor[jr]	Dr. med. vet.	V		T	0,75	6	4,5
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff		V		T	0,25	4	1
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. rer. nat.			T	1	4	4
	Institute of Pathology	Professor[V]					1	8	8
		Professor[V, AS]	Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. vet. med.	V		T	1	8	8
		Academic Staff		V		T	0,1	4	0,4
		Academic Staff		V		T	0,1	4	0,4
		Academic Staff		V		T	0,1	4	0,4
		Academic Staff		V		T	0,1	4	0,4
		Academic Staff		V		T	0,6	4	2,4
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
Centre for Veterinary Basic Sciences	Institute of Pharmacology, Pharmacy and Toxicology	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. rer. nat.				1	8	8
		Academic Staff	Prof Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. rer. med.			T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	0,75	4	3
		Academic Staff				T	0,25	4	1
	Institute of Animal Nutrition, Nutrition Diseases and Dietetics	Professor[V, AS]	Dr. med. vet.	V		T	0,25	4	1
		Professor[V, AS]	Dr. rer. nat.			T	0,75	4	3
		Academic Staff	PD Dr. vet. med.	V			1	8	8
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. rer. nat.			T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
	Institute of Physiology	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. vet. med.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
	Institute of Physiological Chemistry	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. rer. nat.			T	1	4	4

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
Centre for Veterinary Public Health	Institute of Food Hygiene	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff		V		T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	1	4	4
		Academic Staff	Dr. rer. nat.			T	0,5	4	2
		Academic Staff	Dr. rer. nat.			T	0,5	4	2
	Institute of Animal Hygiene and Veterinary Public Health	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	1	4	4
Centre for Infectious Diseases	Institute of Bacteriology and Mycology	Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. med. vet.	V			1	8	8
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff				T	1	4	4
	Institute of Immunology	Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. rer. nat.				1	8	8
		Academic Staff	Dr. rer. nat.			T	1	4	4
	Institute of Parasitology	Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. rer. nat.			T	1	4	4
	Institute of Virology	Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. rer. nat.			T	1	4	4
		Academic Staff	Dr. rer. nat.			T	1	4	4

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
Veterinary teaching hospital	Department for Ruminants and Swine	Professor	Dr. med. vet.	V			1	8	8
		Professor	Dr. med. vet.	V			1	8	8
		Professor[V, AS]		V		T	0,25	4	1
		Professor[V, AS]		V		T	0,25	4	1
		Professor[V, AS]		V		T	0,25	4	1
		Professor[V, AS]		V		T	0,25	4	1
		Professor[V, AS]		V		T	0,25	4	1
		Professor[V, AS]	Dr. med. vet.	V		T	0,5	4	2
		Professor[V, AS]		V		T	0,25	4	1
		Academic Staff	PD. Dr. med. vet.	V			0,5	8	4
		Academic Staff	Dr. rer. nat.				0,5	8	4
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	0,25	4	1
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
	Department for Small Animals	Professor	Dr. med. vet.	V	ECVAA		1	8	8
		Professor	Dr. med. vet.	V	ACVIM (SAIM), ECVIM-CA		1	8	8
		Professor[V, AS]		V	ECVN	T	1	4	4
		Academic Staff	PD Dr. med. vet.	V	ECVAA		1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff	Dr. med. vet.	V		T	0,6	4	2,4
		Academic Staff	Dr. med. vet.	V		T	0,4	4	1,6

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
		Academic Staff	Dr. med. vet.	V		T	0,6	4	2,4
		Academic Staff	Dr. med. vet.	V	ECVN	T	0,4	4	1,6
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,2	4	0,8
		Academic Staff	Dr. med. vet.	V		T	0,3	4	1,2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	PD Dr. med. vet.	V	ACVIM, ECVN		1	8	8
	Department for Horses	Professor	Dr. med. vet.	V			1	8	8
		Professor[V, AS]		V		T	0,5	4	2
		Professor[V, AS]		V		T	0,5	4	2
		Academic Staff	PD Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V		T	0,25	4	1
		Academic Staff		V		T	0,25	4	1
		Academic Staff		V		T	0,5	4	2
		Academic Staff		V		T	0,25	4	1
		Academic Staff		V		T	0,25	4	1
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,25	4	1
		Academic Staff	Dr. med. vet.	V		T	0,75	4	3
		Academic Staff	Dr. med. vet.	V		T	1	4	4
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. rer. nat.				0,5	8	4
		Academic Staff		V		T	0,5	4	2
	Department for Birds and Reptiles	Professor	Dr. med. vet.	V			1	8	8
		Academic Staff	PD Dr. med. vet.	V			1	8	8
		Academic Staff	Dr. med. vet.	V			0,5	8	4

Centre	Institute/ Departement	Position	Title	Veterinarian	Qualification	Temporary	FTE	teaching responsibilities TR (h/week)	FTE x TR
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
		Academic Staff		V		T	0,5	4	2
		Academic Staff	Dr. med. vet.	V		T	0,5	4	2
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Table 2: Academic staff financed by research projects.

Centre	Institute/ Departement	Position	Title	Veterinarian	Temporary	FTE
Centre of Pathology and Anatomy	**Institute of Anatomy, Histology and Embryology**	Academic Staff		V	T	0,6
		Academic Staff	Dr. med. vet.	V	T	0,7
		Academic Staff		V	T	0,25
		Academic Staff	Dr. med. vet.	V	T	1
		Academic Staff	Dr. med. vet.	V	T	0,6
Centre for Veterinary Basic Sciences	**Institute of Pharmacology, Pharmacy and Toxicology**	Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff			T	0,5
		Academic Staff			T	0,5
		Academic Staff		V	T	0,65
		Academic Staff		V	T	1
		Academic Staff	Dr. med. vet.	V	T	0,75
	Institute of Animal Nutrition, Nutrition Diseases and Dietetics	Academic Staff		V	T	0,5
	Institute of Physiology	Academic Staff			T	0,5
	Institute of Physiological Chemistry	Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	1

Centre	Institute/ Departement	Position	Title	Veterinarian	Temporary	FTE
Centre for Veterinary Public Health	Institute of Food Hygiene	Academic Staff			T	0,65
		Academic Staff			T	0,35
		Academic Staff		V	T	0,75
		Academic Staff		V	T	0,5
		Academic Staff	Dr. rer. nat.		T	1
		Academic Staff	Dr. rer. nat.		T	1
		Academic Staff			T	0,35
		Academic Staff		V	T	0,75
		Academic Staff		V	T	0,75
		Academic Staff		V	T	0,75
		Academic Staff	Dr. med. vet.	V	T	0,75
	Institute of Animal Hygiene and Veterinary Public Health	Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.		T	0,5
Centre for Infectious Diseases	Institute of Bacteriology and Mycology	Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff			T	0,1
		Academic Staff			T	0,7
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,2
		Academic Staff			T	0,5
		Academic Staff		V	T	0,5
	Institute of Immunology	Academic Staff		V	T	0,15
		Academic Staff	Dr. rer. nat.		T	0,35
		Academic Staff	Dr. rer. nat.		T	0,4
	Institute of Parasitology	Academic Staff		V	T	0,45
	Institute of Virology	Academic Staff		V	T	0,5

Centre	Institute/ Departement	Position	Title	Veterinarian	Temporary	FTE
Veterinary teaching hospital	Department for Ruminants and Swine	Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,5
		Academic Staff	Dr. rer. nat.		T	0,5
		Academic Staff		V	T	0,5
	Department for Horses	Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,5
		Academic Staff			T	1
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,25
	Department for Birds and Reptiles	Academic Staff		V	T	0,3
		Academic Staff		V	T	0,3
		Academic Staff		V	T	0,25
		Academic Staff		V	T	0,6
		Academic Staff			T	1
		Academic Staff	PD Dr. rer. nat.	V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,9
		Academic Staff		V	T	0,25
		Academic Staff		V	T	0,25
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Table 3: Academic staff financed by faculty.

Centre	Institute/ Departement	Position	Title	Veterinarian	Temporary	FTE
Centre for Veterinary Basic Sciences	Institute of Pharmacology, Pharmacy and Toxicology	Academic Staff		V	T	1
		Academic Staff	Dr. med. vet.	V		1
		Academic Staff	Dr. med. vet.	V		1
Centre for Infectious Diseases	Institute of Parasitology	Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
Veterinary teaching hospital	Department for Small Animals	Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,1
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff	Dr. med. vet.	V	T	0,1
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,1
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,1
		Academic Staff		V	T	0,75
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,4
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,3
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,6
		Academic Staff		V	T	0,4

Centre	Institute/ Departement	Position	Title	Veterinarian	Temporary	FTE
		Academic Staff	Dr. med. vet.	V		1
		Academic Staff		V	T	0,1
		Academic Staff	Dr. med. vet.	V	T	0,8
		Academic Staff	Dr. med. vet.	V	T	0,5
	Department for Horses	Academic Staff	Dr. med. vet.	V	T	0,25
		Academic Staff		V	T	0,5
		Academic Staff	Dr. med. vet.	V	T	0,25
		Academic Staff		V	T	0,25
	Department for Birds and Reptiles	Academic Staff		V	T	0,5
		Academic Staff		V	T	0,5
		Academic Staff		V	T	0,25
		Academic Staff	Dr. med. vet.	V	T	0,25
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B. Units of study in the core veterinary programme (including clinical rotations and EPT)

Compulsory education in pre-clinical studies.

Parts of courses are organized in interdisciplinary foci where pre- as well as para- and clinical subjects are represented.

Learning outcomes and the aligment with the ESVET Day One Competences are listed in the learning objective catalogue, which will be provided to the committe during site visit.

1st semester	Form	Hours
Agricultural Theory	Lecture	28
Botany, including Nutritional Science, Toxicology and Herbalism	Lecture	56
Chemistry (inorganic and organic)	Lecture	62
	Seminar	16
	Pract. course	36
Theory of the Profession (medical terminology, history of veterinary medicine, professional science)	Lecture	42
Physics, including fundamentals of Radiophysics	Lecture	44
	Pract. course	12
Zoology	Lecture	56

2nd semester	Form	Hours
Anatomy I	Lecture	56
	Dissection course	56
Animal Breeding and Genetics, Breeding Theory, Livestock Judging	Lecture	26
Animal Welfare and Ethology	Lecture	28
Biochemistry I	Lecture	21
	Seminar	8.4
Focus Cell	Lecture	19
Histology I	Lecture	9
	Pract. course	14
Physiology I	Lecture	10
	Pract. course	12

3rd semester	Form	Hours
Anatomy II	Lecture	28
	Dissection course	28
Animal Breeding and Genetics, Breeding Theory, Livestock Judging	Lecture	56
Biochemistry II	Lecture	16
	Seminar	8.4
Animal nutritional science	Lecture	14
	Pract. course	28
Focus Blood and Defence	Lecture	18
Focus Embryology	Lecture	20
Focus Gastrointestinal tract	Lecture	30
Focus Liver	Lecture	14
Histology II	Lecture	7
	Pract. course	14
Physiology II	Lecture	11
	Pract. course	32

4th semester	Form	Hours
Anatomy III	Lecture	28
	Dissection course	28
Biochemistry III	Lecture	28
	Seminar	7
	Pract. course	32
Embryology	Lecture	11
Focus Birds and Reptiles	Lecture/pract. course	20
Focus Urinary tract	Lecture	11
Histology and Embryology III	Pract. course	14
General Pharmacology and Toxicology	Lecture	14
Physiology III	Lecture	28
	Pract. course	24

	Semester	Hours
Agricultural work (genetics, breeding, husbandry, milking techniques, etc.)	2nd/3rd	70*
„Small clinical rotation“ in all clinics of the Veterinary teaching hospital**	3th/4th	40

* Two weeks (70 hours) if done on an official agricultural training and research station; four weeks if done on a farm that is registered / certified to educate agricultural trainees (apprenticeship).
** i.e. Department for Birds and Reptiles, Department for Horses, Department for Ruminants and Swine, Department for Small Animals.

Compulsory education in clinical studies.

The majority of lectures ist organized in interdisciplinary foci, where pre- as well as para- and clinical subjects are represented.

Learning outcomes and the aligment with the ESVET Day One Competences are listed in the learning objective catalogue, which will be provided to the committe during site visit.

5th semester	Form	Hours
Animal Welfare and Ethology	Lecture	14
Clinical Propaedeutics	Lecture	32
	Pract. course	66
Bacteriology and Mycology	Lecture	16
	Pract. course	16
Focus Clinical basics	Lecture	84
Focus identify, understand and combat infectious diseases I	Lecture	19
General Pathology	Lecture	42
General Radiology and Clinical Radiology	Lecture	42
General Toxicology	Lecture	14
Immunology	Lecture	28
Laboratory Animal Science	Lecture	14
Parasitology	Lecture	22
	Pract. course	22
Virology	Lecture	45
	Pract. course	6
Surgical course I	Pract. course	14
Clinical Training (can be absolved also in 6th semester)	EPT	150

6th semester	Form	Hours
Animal Welfare and Ethology	Lecture	14
Clinical hours in all clinics oft he Veterinary teaching hospital	Pract. course	44
Focus Digestion	Lecture	94
Focus Genital tract	Lecture	80
Focus identify, understand and combat infectious diseases I	Lecture	38
Focus Motion	Lecture	56
Focus respiratory tract	Lecture	55
Focus Urinary tract	Lecture	23
Focus Behaviour, keeping an feeding of farm and companion animals	Lecture	21
Laboratory diagnostics	Pract. course	14
Special aspects of pharmacology	Lecture	12

7th semester	Form	Hours
Ambulatory clinics in the Department for Birds and Reptiles*	Ambulatory	6
Animal Husbandry and Animal Hygiene	Lecture	14
	Pract. course	10
Biomedical statistics	Lecture	14
Clinical hours in all clinics oft he Veterinary teaching hospital	Pract. course	44
Focus Birds and Reptiles	Lecture	41
Focus cardiology	Lecture	23
Focus Herd Management	Lecture	104
Focus legislation in Food hygiene	Lecture	26
Focus Neurology	Lecture	52
Focus Residues and contaminants in food	Lecture	31
Food Science	Lecture	17
Food hygiene (hygiene control, food monitoring, food examination)**	EPT	75
Meat and Poultry Hygiene	Lecture	21
Milk Science	Lecture	18
Special Pathological Anatomy and Histology	Seminar	14
	Pract. course	14

* can be completed also in the 8th semester

** can be completed between the 7th and 10th semester

8th semester	Form	Hours
Animal Nutrition	Pract. course	20
Biomedical statistics	Seminar	14
Clinical hours in all clinics oft he Veterinary teaching hospital	Pract. course	46
Control of Animal Epidemics and Epidemiology	Lecture	26
	Seminar	13
Diseases in Honey Bees	Lecture	10
Drug and Anaesthesia Law, Prescription and Drug Preparation Theory, Assessing Risks	Lecture	28
Focus Blood	Lecture	19
Focus Endocrinology	Lecture	19
Focus Fish	Lecture	28
Focus Poultry	Lecture	52
Focus Skin	Lecture	27
Food Science	Lecture	18
	Pract. course	44
Forensic Veterinary Medicine, Veterinary Professional Law	Lecture	28
Meat and Poultry Hygiene	Lecture	21
	Pract. course	28
Milk Science	Lecture	19
	Pract. course	14
Special Pathological Anatomy and Histology	Seminar	14
Pathohistology	Pract. course	14

9th/10th semester – Intramural practical training	Form	Hours
Clinical rotation in the Veterinary teaching hospital		
Department for Birds and Reptiles	1 week	356
Department for Horses	3 weeks	
Department for Ruminants and Swine	3 weeks	
Department for Small Animals	5 weeks	
Drug and Anaesthesia Law, Prescription and Drug Preparation Theory, Assessing Risks	Pract. course	14
Pathology: necropsy	Pract. course	42
Surgical course II	Pract. course	14

9th/10th semester – Extramural practical training (EPT)	Hours
Clinical training (private practice or clinic; companion animals or production animals)	700
Food hygiene (hygiene control, food monitoring, food examination)*	75
Abattoir, ante and post mortem meat inspection	100
Veterinary inspection offices regarding all issues of Veterinary Public Health	75

* can be completed between 7th and 10th semester

The VMF is currently developing a new ECTS-calculation.

Elective courses offered by the Faculty during pre-clinical education from winter semester 2015/16 until winter semester 2017/18

Each student has to take a total of 84 elective hours during pre-clinical studies. 56 hours are represented in a track, which lasts from 2nd to 4th or 3rd to 4th semester. The remaining 28 hours can be selected out of different courses.

Titel of elective course	Semester	Seminars	Supervised self-learning	Laboratory desk based work	Non-clinical animal work	Clinical animal work	Total
Winter semester 2015/16							
Animal feed analysis	3	7		7			**14**
Applied anatomy of the	3	7			7		**14**
Applied anatomy on living animals	3				14		**14**
Business administration for vets	3	7	7				**14**
Case discussion of interesting patients	3	7	7				**14**
Clinical propaedeutics (Department for Horses)	3	7				21	**28**
Clinical propaedeutics (Department for ruminants)	3	7				21	**28**
Composition of feed rations	3	3	2	2			**7**
Curiosities of animal diet consultancies	3	7					**7**
Functional neuroanatomy of the visual system	3	3			4		**7**
Pathobiochemical analysis	3	7		21			**28**
Professional communication	all	10	4				**14**
Scanning electron microscopical and histological features of specific organs	3	4	3	7			**14**
Stem cell biology in veterinary medicine	3	7		7			**14**
Topographic anatomy of canine and equine head	3	7			7		**14**
Track anatomy I	3	21			21		**42**
Track exotic species II	3	14				14	**28**
Track functional neuroanatomy of sense organs II	3	7		14	14		**28**
Track pathophysiology/pathobiochemistry II	3	14		14			**28**
Veterinary competencies 2020	3	5	2				**7**
Summer semester 2016							
Additional course to animal nutrition	4	7	7				**14**
Anatomical basics for surgical access	4	4	3		4		**14**
Ante-mortem inspection of pigs	4	3		7	4		**14**
Post-mortem inspection of pigs	4	3		7	4		**14**
Professional communication	all	10	4				**14**
Specific aspects of organogenesis	4	10	4				**14**
Track anatomy II	4	7			7		**14**
Track exotic species I	2	7				7	**14**
Track exotic species III	4	7				7	**14**
Track functional neuroanatomy of sense organs I	2	3		7	4		**14**
Track functional neuroanatomy of sense organs III	4	4		7	3		**14**
Track pathophysiology/pathobiochemistry I	2	7		7			**14**
Track pathophysiology/pathobiochemistry III	4	7		7			**14**

Winter semester 2016/17							
Animal feed analysis	3	7		7			**14**
Case discussion of interesting patients	3	7	7				**14**
Clinical propaedeutics (Department for Horses)	3	7				21	**28**
Clinical propaedeutics (Department for ruminants)	3	7				21	**28**
Composition of feed rations for dogs and cats	4	3	2	2			**7**
Horse-handling for inexperienced students	3	7				7	**14**
Laboratory placement: Ussingkammer technic	3	7	7	14			**28**
Pathobiochemical analysis	3	7		21			**28**
Professional communication	all	10	4				**14**
Scanning electron microscopical and histological features of specific organs	3	4	3	7			**14**
Topographic anatomy of canine and equine head	3	7			7		**14**
Track functional neuroanatomy of sense organs II	3	7		14	14		**28**
Track exotic species II	3	14				14	**28**
Summer semester 2017							
Anatomical basics for surgical access	4	4	3		4		**14**
Chiropractics for horses – Anatomy and biomechanics	4	7			4	3	**14**
Equine Clinical examination methods	4	4	3				
Professional communication	all	10	4				**14**
Specific aspects of organogenesis	4	10	4				**14**
Track exotic species I	2	7				7	**14**
Track exotic species III	4	7				7	**14**
Track functional neuroanatomy of sense organs I	2	3		7	4		**14**
Track functional neuroanatomy of sense organs III	4	4		7	3		**14**
Track pathophysiology/pathobiochemistry I	2	7		7			**14**
Track pathophysiology/pathobiochemistry III	4	7		7			**14**
Clinical propaedeutics (Department for Horses)	3	7				21	**28**
Clinical propaedeutics (Department for ruminants)	3	7				21	**28**
Composition of feed rations for dogs and cats	3	3	4				**7**
Detection of trace- and volume elements in feeding stuff	3	4		10			**14**
Functional neuroanatomy of the visual system	3	3			4		**7**
Horse-handling for inexperienced students	3	7				7	**14**
Laboratory placement: Ussingkammer technic	3	7	7	14			**28**
Pathobiochemical analysis	3	7		21			**28**
Professional communication	all	10	4				**14**
Topographic anatomy of canine and equine head	3	7			7		**14**
Workshop transmission electron microscopy	3	4	3	14			**21**

Elective courses offered by the Faculty during clinical education

Students have to complete 224 hours during clinical studies in intramural rotation in 9th/10th semester. Three elective tracks have to be chosen (3x42h) and one project work (98h).

Titel of elective course	Lectures	Seminars	Supervised self learning	Laboratory desk based work	Non-clinical animal work	Clinical animal work	Total
Track horses		21				21	**42**
Track lifestock and herd management		21				21	**42**
Track rabbits, rhodents, exotic pets and zoo animals		21				21	**42**
Track small animals		21				21	**42**
Track paraclinical diagnostics		21		21			**42**
Track VPH		21		11	10		**42**
Project work			14	84			**98**

C. Maps of the VMF and the intramural and extramural facilities used in the core veterinary programme

Schematic map of VMF

Aerial view of VMF

Aerial view of LVG Oberholz

D. Written assessment procedures for QA

Quality Management Guide of the University of Leipzig

As mentioned in chapter 11, all QA processes are based on the QM Guide of the University, which was approved by the University's senate in 2017. This very detailed guide handles all procedures for maintaining great quality of teaching and studies at the Faculties of the University, despite focusing on bachelor and master programmes since the system accreditation that has been ongoing since 2015. As the University received many restrictions throughout the system accreditation, a so-called “Quality Cycle” was introduced a few weeks ago. It is organised and hosted by employees of the executive department for quality development in teaching and learning and consists of one member of the Faculty each. In regular (once per semester) meetings, topics that are relevant for all faculties will be discussed from now on. In the first meeting, working groups were formed, in which members will discuss the main restrictions the university received over the next months. This includes, among others, revising the evaluation regulations of the University, as well as editing the QM Guide.

For the Site Visit, the Committee will have access to the QM Guide and the evaluation regulations of the University.

Study Programme Evaluation

Since the summer semester 2018, the VMF has been operating an evaluation procedure of all lectures, uniform for all faculties. This is based on the ordinance for evaluation of teaching and studies at the University of Leipzig (from September 2015). The Faculty passed implementing laws in April 2018, that determine the evaluation of lectures. The following points are all defined in this document.

The evaluation started in the last semester with a pilot phase. Questionnaires for various teaching formats were conceptualised in the Study Commission, before they were sent to all teachers of the VMF, in order to involve the whole teaching staff in the process of developing those questionnaires.

The Executive Department for QD in teaching and studies at the University of Leipzig handled the technical implementation; this Department supervises all faculties, except for the Medical Faculty. The evaluations made by the Executive Department are submitted to teachers of lectures and the subject representative, as well as the Faculty administration, excluding direct personal data. Further, it is the goal to directly provide students with a summary of results, in order to receive possibly essential information for feedback, while maintaining dialogue with students.

This process makes it possible for the Faculty, to immediately react to arising weaknesses in their lectures and to adapt without loss of time.

Implementing Rules of Evaluation at the Faculty of Veterinary Medicine (VMF)

Legal background

The present implementing rules are in accordance with the ordinance for evaluation of teaching and studies at the University of Leipzig (current version from 2 September 2015).

Further, the evaluation is implemented according to regulations of the Saxon data ordinance for university staff (SächsHSPersDatVO) §§ 10 and 11, effective sind 20 October 2017.

The EAEVE (European Association of Establishments for Veterinary Education) further requires Veterinary teaching facilities to assure continuous evaluation of teaching (Standard Operating Procedures des European System of Evaluation of Veterinary Training, May 2016, Chapter 11).

Subject of Evaluations

Evaluations take place in all semesters for specialised courses (fLV: lectures, seminars, practical exercises), Focus lectures and in the clinical year (rotation, tracks, project work).

Designating courses that are due for evaluation is done by the Study Commission in consultation with the teaching staff.

The complete study programme with preclinical and clinical study phases and its academic conditions is evaluated, assured in terms of quality and developed as well.

Evaluation Process

Courses and Focus classes shall be evaluated biennially, but at least once every four years.

This will start in the summer semester 2018 with a pilot phase. Here, a maximum of four courses still to be named are evaluated, two from the preclinical and clinical phase each.

After the winter semester 2018/19, four courses per semester (preferably two lectures/seminars and two practical exercises) are evaluated in the preclincal phase, and two subject-specific courses and two Focus classes are evaluated in the clinical phase.

Further, the clinical year and the preclinical and clinical study phases will be evaluated after the winter semester 2018/19. Academic conditions of the clinical study phase shall be recorded.

Developing questionnaires and implementing evaluations is done in collaboration with the Executive Department for QA in teaching and studies.

For individual courses, the Study Commission, the student body and the Executive Department develop core questionnaires (“Kernfragebögen”), that are used for regular evaluation.

Apart from the regular evaluation rhythm it is possible to evaluate single courses separately, at the suggestion of the lecturer, the Study Commission or the Student Council. Requests for this purpose have to be sent to the Executive Department after filing an application with the Study Commission; deadline for the respective summer semester is 30 April and 31 October for the respective winter semester. In this case, core questionnaires can be enhanced individually and by a maximum of five extra questions.

Evaluations are preferably executed online with the evaluation program EvaSys. Students can offer evaluations either during the last course/Focus class or accessible online over the course of usually three weeks (one week before the lecture period has ended to two weeks after). If courses that have to be evaluated extend over the whole semester, the evaluation takes place at the beginning of the last third of the lecture period; this way, students are able to discuss results during the ongoing semester.

Evaluation Plan

Lessons that have to be evaluated are regulated in a particular evaluation plan, which is approved by the Study Commission and published in the fourth lecture week of the semester at the latest.

Using results

The comments and evaluations of lessons handed in by students are anonymised.

Results of questionnaires are made available to all participating teachers, while results regarding lecturers are only forwarded to the respective person.

Further, lesson specific evaluation results of core questionnaires are brought to the Dean of Studies, free text comments not included.

The employee in charge (subject or Focus representative) summarises evaluation results (general results from core questionnaires), before commenting on and discussing them with students. Afterwards, the summary is forwarded to the Dean of Studies and the Study Commission for further editing and integration in the teaching report.

Commencement

These implementing rules come into effect on the day they were adopted by the faculty council on the date of 2018, April, 11.

Teaching report procedure

This procedure serves as a main QM tool of teaching and studies, by

- combining faculty related QM systems with central components of the University's QM,
- coupling the QM of teaching and studies with the controlling system of the University and thus closing the control circuit of the QM of teaching and studies

Subjects of the teaching report in each faculty (written every three years) include:

- illustrating the Faculty's study programme as well as reflecting on relevant characteristics and structural data,
- presenting and reflecting on evaluation results,
- defining needs for development and differentiating appropriate measures for QD,
- empirically making the effectiveness of already taken measures of QD plausible,
- reflecting on the degree of achievements, regarding both internally (Faculty) and externally (rectorate, Saxon State Ministry for Science and Arts (SMWK)) set goals and
- presenting ideas for the strategic development of the study programme.

The teaching report of the VMF is written by the Dean of Study Affairs and serves as the medium of communication between rectorate and VMF. It includes a summary of the full teaching report of the VMF, an illustration of the VMF's QM system's main activities, self-evaluations regarding study programmes and a conclusion of the Dean of Study Affairs, in which those self-evaluations and student statements are integrated in the VMF's policy and the derived quality targets.

Student representatives of the VMF and student members further condense their own statement to create a common faculty statement.

Based on the VMF's teaching report and the common statement of the student body, the Dean agrees to a conduct regarding the VMF's teaching report in the form of a Faculty Council order.

Those reports are centrally evaluated on behalf of the rectorate of the Executive Department QD in teaching and studies. The goal is to prepare systematic feedback of the rectorate for the faculties.

Following this, an appraisal session between rectorate and VMF takes place, whose results can be documented subsequently, in the form of a written agreement.

The last teaching report of the VMF was submitted to the University in July 2018. It will be available to the Committee as a document for the Site Visit.

Creating examinations with the electronic examination system UCAN

Since the Faculty entered the „Umbrella Consortium for Assessment Networks” (UCAN, www.ucan-assess.org) in November 2017, it has been possible to determine and document all processes regarding the creation and evaluation of written/electronic examinations, and to implement it in the QA concept of the Faculty. For this reason, individual processes including the determination of responsibilities, from creating questions to evaluating examinations, were described by the local UCAN-representative and

signed by the Faculty administration. Thus, processes of the Faculty administration were implemented in the examination system as compulsive processes.

Process description: Creating questions and examinations with UCAN – including review procedures

Creating questions/examinations

Every author (i.e. persons with examination licences for the respective stage of studies) is responsible for creating their questions and implementing them in the IMS (ItemManegementSystem) of UCAN.

For this procedure, it is necessary to set up a profile with UCAN through the local admin (currently Bernigau): only members of the Examination Committee can access the electronic system.

Should the author or subject representative consult people without examination licences in the process of creating questions, the question has to be implemented in the system by a person with access to UCAN (the author of the question logged into the system is responsible).

Subject representatives implement those questions in the examination; this can be done by them or, after consultation, the admin.

Regarding Foci: The Focus representative

- is responsible for guaranteeing that all questions are available in the system in time for the examination (time limits are known)
- can independently set up an examination, which can also be done by the local admin and upon consultation
- must copy respective questions in the number that is required in their Focus into the examination, or inform the admin about which questions to take into the examination
- must review/pick up the sample solution (made by the admin) at the Study Office and immediately inform the admin about any changes
- and create examination sheets for students before handing them over to the Study Office for publication.

Evaluation

The Study Office takes care of scanning paper-based examinations

The local admin handles evaluations and sends examination statistics to the Focus representative/subject representative, the chairperson of the Examination Committee and possibly to the Dean of Studies.

The Focus representative has to immediately discuss controversial questions (level of difficulty <0.3, selectivity <0.2) with the chairperson of the Examination Committee, who will notify the admin of the final result.

After potential adaptations of statistics, the admin and the Study Office develop the final evaluation for publication for students, and submit it to the database of the Study Office.

Afterwards, final statistics from the statistic programme are sent back to the IMS. Thus, everyone using the question database can access quality parameters of all questions.

Review

In the future, the entire review process shall take place within the IMS.

The responsibility of the formal review lies with the review group in cooperation with the UCAN group and the Examination Committee.

Reviews regarding content should be positive and made by preferably two people with an equal or similar examination admission, before questions are implemented in examinations.

Preliminary work of members from the Examination Committee (“UCAN group”)

Question authors have to react to comments from negative reviews and edit their questions if necessary

The Focus representative has to inform the admin and the chairperson of the Examination Committee about changes after the examination, in order for results to be adapted.

The UCAN group's representative is available to the admin for general questions regarding examinations (in the context of organisation and possibly content).

E. List of scientific publications from the Establishment's academic staff in peer reviewed journals during the last three academic years

Year 2017

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Pferdeheilkunde. 2017. 33 (3). S. 263-270
DOI 10.21836/PEM20170307

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Berliner Münchener Tierärztliche Wochenschrift. 2017.
10.2376/0005-9366-16064

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J. Anim. Physiol. Anim. Nutr. (2017) doi: 10.1111/jpn.12804

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Equine Veterinary Education. 2017.
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Elaphe. 2017. 5. S. 46-51

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F. German Ordinance concerning the Certification of Veterinary Surgeons (TAppV)

Ordinance
concerning the Certification of Veterinary Surgeons
(Verordnung zur Approbation von Tierärztinnen und Tierärzten – TAppV)

Issue date: 27 July 2006

Full quote:

Ordinance concerning the Certification of Veterinary Surgeons of 27 July 2006 (Federal Law Gazette [*BGBl.*] Part I p. 1827), amended by Article 37 of the Act of 2 December 2007 (Federal Law Gazette Part I p. 2686)

Version: Amended by Art. 37 of the Act of 2 December 2007 Part I 2686

Preamble

On the basis of section 5 sentence 1 of the Federal Veterinary Code (*Bundes-Tierärzteordnung*) in the version of the promulgation of 20 November 1981 (Federal Law Gazette Part I p. 1193), most recently amended by Article 151 of the Act of 25 November 2003 (Federal Law Gazette Part I p. 2304), in conjunction with section 1 (2) of the Competence Adjustment Act (*Zuständigkeitsanpassungsgesetz*) of 16 August 2002 (Federal Law Gazette Part I p. 3165) and the order for the establishment of an institution of 22 November 2005 (Federal Law Gazette Part I p. 3197), the Federal Ministry of Heath herewith orders as follows:

CHAPTER I
VETERINARY TRAINING

Section 1
Objectives and Structure of Veterinary Training

(1) The objective of the training is an academically and practically trained veterinary surgeon who is capable of practising the veterinary profession responsibly and independently within the meaning of Section 1 of the Federal Veterinary Code and of undergoing further training and ongoing advanced training.

1. The fundamental veterinary, scientific, interdisciplinary and methodological skills,
2. practical skills,
3. spiritual and ethical foundations, and
4. a professional attitude committed to the well-being of humans, animals and the environment

shall be imparted as they are necessary for the entire scope of the veterinary profession to be practised responsibly, taking special account of quality assurance.

(2) Veterinary training shall comprise

1. an academic-theoretical component of studies in veterinary medicine lasting for four and a half years with 3,850 hours of compulsory and optional courses, which must not be exceeded, at a

university or at an equivalent higher-education establishment (university) in which the necessary basic knowledge is imparted with a view to its subsequent use in veterinary medicine;

2. a practical component of studies lasting for 1,170 hours, with

   a) 70 hours on agriculture, animal breeding and animal husbandry,
   b) 150 hours in the therapeutic practice of a veterinary surgeon or in an animal hospital under veterinary supervision,
   c) 75 hours in hygiene control and control of foodstuffs,
   d) 100 hours in the inspection of animals for slaughter and meat,
   e) 75 hours in the public veterinary service,
   f) 700 hours in the therapeutic practice of a veterinary surgeon or in an animal hospital under veterinary supervision or an elective placement,

3. the following examinations:

   a) the Preliminary Veterinary Examination,
   b) the Veterinary Examination.

The standard period of study within the meaning of Section 10 (2) of the Framework Act on Higher Education (*Hochschulrahmengesetz*) shall be five years and six months for the entire training.

Section 2
Courses

(1) The university shall provide an education that complies with the objectives cited in Section 1 (1) and that allows the students to acquire the knowledge and skills required in the examinations provided for in this Ordinance. The imparting of the fundamentals of natural science and theory is to be concentrated on the training content that is relevant to veterinary medicine. The theoretical and clinical knowledge is to be linked as closely as possible during the entire training. For this purpose the university shall conduct, in particular, lectures, seminars, clinical demonstrations and exercises, including exercises on the animal, in the subjects cited at Annex 1. It may replace parts of these courses with appropriate interactive learning programmes. The number of students in the seminars, at the clinical demonstrations and the exercises shall be tailored to the teaching task by the universities. As far as possible and where appropriate, the contents of the teaching shall not be oriented to the individual discipline, but shall be imparted in an interdisciplinary, problem-oriented manner in line with the object of teaching. Interdisciplinary teaching shall be conducted and co-ordinated with the involvement of representatives from several subjects. The Rules for Study at each university shall govern this in more detail.

(2) During their studies the students shall participate in at least those teaching events cited in (1) sentence 4 above that the university shall designate as compulsory courses. The compulsory and optional courses shall amount to an average of 30 hours per week in a semester, except during the clinical training and the placements. They must contain the disciplines listed at Annex 1 with the required number of hours.

(3) The university shall offer optional courses in subjects cited at Annex 1, in which the students shall participate with at least 308 hours from the 1st to the 9th semesters, including at least 84 hours in subject areas for the Anatomical-Physiological Stage of the Preliminary Veterinary Examination and at least 126 hours in the subject areas of the Veterinary Examination.

(4) During the 8th and 9th semesters, the students shall participate in the compulsory course in the interdisciplinary subject .

Section 3
Trial Clause

(1) While retaining the total number of hours for the scientific-theoretical part of the course, amounting to 3,850 hours, the universities may make provision for deviations from the number of hours

for the subjects listed at Annex 1 by up to 20 per cent of the total number of hours, subject to the proviso of (2).

(2) Subjects with 28 hours or fewer, as well as the subjects listed in Annex 1 Nos. 28 to 31, shall be excluded from the possibility of reducing the number of hours.

(3) The deviations in accordance with (1) shall be subject to the proviso that

1. the training objectives in accordance with Section 1 (1) as a foundation of the certification in accordance with Section 4 (1) of the Federal Veterinary Code are not jeopardised,

2. it has been ensured that the requirements of Article 38 of Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ EC L 178 p. 7) have been satisfied,

3. the conditions under which the university can reverse the deviations have been regulated,

4. it is still possible for the students to change university.

(4) The universities that avail themselves of the deviation in accordance with (1) shall inform the competent authority of this with a description of the objective of the trial and the expected quality improvements for veterinary training. Upon request they shall submit a report to the competent authority on the experience gathered.

Section 4
Model course of studies

(1) For the trial of new models of veterinary training, the competent authority, on request from a university, may introduce a model course derogating from the standard course of studies and may determine the respective contents. The goals of training as defined in Section 1 (1) must remain unaffected.

(2) Approval as a model course of studies shall be contingent on

1. the objective of the trial being described and revealing what qualitative improvements are anticipated for veterinary training to emerge from the model course of studies,
2. there being a special Rules for Study issued by the University,
3. it being ensured that the knowledge, skills and abilities to be proven in the Preliminary Veterinary Examination and the Veterinary Examination are examined in the model course of studies in a manner equivalent to the standard course of studies,
4. a proper, accompanying, final evaluation of the model course of studies by the university, using external expertise, is guaranteed,
5. the minimum and maximum duration of the model course of studies has been determined and extension applications are to be reasoned using results of the evaluation,
6. the prerequisites are named subject to which the university can discontinue the model course of studies,
7. the procedure to be followed on transition from the model course of studies to the standard course of studies is to be regulated with regard to further studies, allowance of study times and examinations and other study achievements, and
8. it is determined how the requirements of the standard course of studies as to the Preliminary Veterinary Examination and the Veterinary Examination are met in the model course of studies.

CHAPTER 2
EXAMINATION REGULATIONS

Sub Chapter 1
General Regulations

Section 5
Examination Committees

(1) One state examination committee of the Preliminary Veterinary Examination and one state examination committee for the Veterinary Examination shall be formed at every university.

(2) Every examination committee shall comprise the Chairman, one or more deputies and further members. The members of the examination committee shall be appointed in writing as examiners for specific examination subjects and each for no more than four years after the university has been heard by the competent authority. Professors from the university shall be appointed as Chairman and deputies and professors or other teaching staff from the subjects being examined shall be appointed as other members.

(3) The Chairman shall be responsible for supervision of the examinations and their proper implementation. He or she shall ensure that students who meet all the requirements for admission to the examination can take initial examinations in the respective examination subjects within the deadlines prescribed by the university. In urgent cases, the Chairman may, with the agreement of the competent authority, authorise a member of the teaching staff to temporarily take care of the examination business.

Section 6
Competent Examination Committee

The students shall sit the stages of the Preliminary Veterinary Examination and the Veterinary Examination before the competent examination committee at the university at which they are enrolled on the Veterinary Medicine course at the time they registered for the examination or were most recently enrolled. Resit examinations shall be sat before the examination committee where the examination was failed.

Section 7
Registration for the Examination

(1) For the examinations of the Preliminary Veterinary Examination in accordance with sections 19 and 22, and prior to the examinations of the Veterinary Examination in accordance with section 29, an application for approval shall be made to the Chairman of the examination committee. The following shall be enclosed with the application:

1. personal identification,

2. proof of entitlement to study at a university, in the case of certificates acquired outside the area of application of this Ordinance, also the recognition decision of the competent authority, as well as

3. the required proof of training in accordance with Sections 20, 23 and 31.

The proof under sentence 2 Nos. 1 and 2 shall only be enclosed prior to the first examination at a university.

(2) The proof shall be submitted as originals or as officially certified copies. It may be submitted in another form insofar as this is recognised in the individual case by the Chairman of the examination committee as being equivalent. The proof shall be placed in the examination files until completion of the relevant stage of the examination and then returned.

Section 8
Admission to the Examination

(1) The Chairman shall decide on admission to the examinations on behalf of the examination committee.

(2) Admission shall be refused if the student cannot furnish the required proof or may not resit an examination in accordance with Section 17 (1) sentence 3.

(3) After admission to the examination, the examinations shall be sat within the deadlines set by the university.

Section 9
Sitting the Examination

(1) The examinations shall be held by the members of the examination committee appointed or commissioned for the examination subjects concerned. They may also be held by several examiners.

(2) The Chairman or his deputy may participate in the examinations and set examination questions.

(3) The competent authority may send observers to the oral examinations. After prior registration, the Chairman of the examination committee shall allow up to five students of veterinary medicine who have already been admitted to the same examination or who are in the stage of training prior to the examination concerned, as well as one representative of the competent Chamber of Veterinary Surgeons, to be present at the examination, with the exception of the deliberations and the announcement of the examination results, provided that none of the candidates objects.

Section 10
Form of the Examination

(1) The examination may be conducted in writing, orally, by solving questions set in writing whereby it is to be stated which of the answers proposed with the questions are considered to be correct (multiple choice) or in a combination of these forms of examinations. The university may also derive the examination mark from continuous assessment; the provision of proof about regular and successful participation in the seminars and exercises shall remain unaffected. In individual examination subjects, the examination can be taken in several part examinations.

(2) No more than five students shall be examined together in the oral examination.

(3) If students can demonstrate with a medical certificate that they cannot sit the examination fully or partially in the intended form due to a physical disability, the Chairman shall allow equivalent examination achievements to be demonstrated by different means.

(4) The university shall define the form of the examination for the respective examination subject in accordance with (1), as well as the respectively necessary deviations from Sections 9, 11, 12 and 14, in a supplementary Code of Examination Regulations (Section 16 of the Framework Act on Higher Education).

Section 11
Examination Date

(1) The examinations shall be carried out soon after the lessons. They should be held in the periods free of lectures; they should as a rule be completed by the start of the next period of lectures, with the exception of resits. The Chairman shall set the examination dates in agreement with the examiners involved. The examinations shall be set in such a way that the standard study period pursuant to Section 1 (2) sentence 2 is not exceeded.

(2) The time in which no compulsory courses or placements are to be attended by the students concerned shall be regarded as periods free of lectures.

Section 12
Invitation to Sit the Examination, Failure to Attend

(1) The students shall be informed of the examination date at the latest seven days prior to the examination date. The information shall be served.

(2) If, for good reason, students miss an examination date or miss the deadline for handing in a written protocol of findings, they shall be invited to sit a new examination, which shall not be considered a resit, or a new deadline shall be set for them. The reason for the omission shall also be sent to the Chairman in writing without undue delay and its validity shall be demonstrated upon request. In the event of omission due to illness a medical certificate shall also be submitted. The Chairman may demand that the certificate from a health office be submitted. The achievements of the students in the examination concerned shall be deemed to be "inadequate" in the event of failure to attend without good reason.

(3) If the students discontinue an examination or withdraw from it, (2) above shall apply *mutatis mutandis*.

(4) Students who have not registered for an examination without good reason at the latest one academic year after the earliest possible date for them or six months before the last possible date for them shall be invited to attend mandatory student counselling *ex officio* by the Chairman of the examination committee.

Section 13
Objective of the Examination

(1) The examination shall determine whether the students have acquired the knowledge and skills that they need to continue their studies and to perform the veterinary profession. The examination shall also cover whether the students understand how to theoretically and practically apply the basic knowledge they have proved in previous stages of the examination and whether they master the common specialist terminology.

(2) If a patient or another examination object upon which the students are to be examined is not available, the examiner shall decide how the examination shall be conducted properly, where appropriate on a dummy or a model.

Section 14
Examination Marks

(1) The examiner or a record keeper appointed by the Chairman shall in each case keep a written record of the course of the oral examination in accordance with the model in Annex 2, from which the subject matter of the examination and the assessment of the achievements can be seen. The examiners shall use the following examination marks to assess the examination achievements:

1. "very good" (1) = an outstanding achievement,
2. "good" (2) = an achievement that is considerably above the average requirements,
3. "satisfactory" (3) = an achievement that satisfies the average requirements in every respect,
4. "adequate" (4) = an achievement that still meets the requirements in spite of its shortcomings,
5. "inadequate" (5) = an achievement that no longer meets the requirements due to considerable shortcomings.

On proviso of Section 15, the examination mark "inadequate" may be awarded in an oral examination only if the students have been examined for at least 20 minutes; it shall be briefly justified in the written record.

(2) The university shall define a binding evaluation framework prior to the examination for examinations which are carried out by solving questions set in writing whereby it is to be stated which of the answers proposed with the questions are considered to be correct (multiple choice).

(3) The result of the examination shall be announced to the students after completion of the examination in each examination subject.

Section 15
Irregularities

If students disrupt the orderly course of the examination, or if they attempt to perpetrate deception, the examiner may interrupt the examination of these students. The Chairman, in agreement with the examiners concerned, may declare the achievements of these students in the examination concerned to be "inadequate" or, in particularly serious cases, declare the stage of the examination to have been failed.

Section 16
Results of the Examination

(1) The Chairman shall specify the results of the examination and award the certificates in accordance with Annexes 3 to 5. The certificates shall contain a list of the examination marks for the examination subjects as well as the overall results after the Preliminary Veterinary Examination and the Veterinary Examination have been passed. Examinations credited in accordance with Section 65 shall be identified separately on the certificates.

(2) An examination subject shall be deemed to have been passed if the students have received at least the examination mark "adequate".

(3) A stage of the Preliminary Veterinary Examination or the Veterinary Examination shall be deemed to have been passed if the students have passed all of the examination subjects in the stage concerned.

(4) The overall results of the Preliminary Veterinary Examination and of the Veterinary Examination shall each be made up of the average of the examination marks received for the examination subjects in the relevant stages. The average mark shall be calculated to two decimal places, the third decimal place not being taken into account. The overall mark shall be

1. "very good"	for a numerical value of up to 1.49
2. "good"	for a numerical value of 1.50 to 2.49
3. "satisfactory"	for a numerical value of 2.50 to 3.49
4. "adequate"	for a numerical value of 3.50 to 4.00.

(5) A certificate following the model of Annex 4 shall be drawn up to confirm that the Preliminary Veterinary Examination has been passed and a certificate following the model of Annex 5 shall be drawn up to confirm that the Veterinary Examination has been passed, each of which shall contain the numerical value in brackets adjacent to the overall result. If students have not passed the Preliminary Veterinary Examination or the Veterinary Examination, an overall mark shall not be calculated; if examinations have been credited in accordance with Section 65, an overall mark shall not be calculated unless the Chairman of the examination committee ascertains that the other examination marks obtained would permit a meaningful overall mark to be determined.

Section 17
Resitting the Examination

(1) Students may resit the examination twice in examination subjects that they have not passed. Section 20 (2) shall remain unaffected. If an examination subject is not passed when it has been resat twice, the Chairman shall declare that the examination has definitively not been passed. Another resit, even after studying veterinary medicine again, shall not be possible. The Chairman shall inform the other universities, as well as the authorities responsible for crediting students' achievements, thereof.

(2) A resit examination may be conducted at the earliest three weeks after the failed examination.

(3) Apart from the examiner, the chairperson or a member of the committee designated by him/her shall attend oral examinations at the second resit; they may also ask examination questions. With written examinations, the work of the second resit is to be evaluated, apart from by the examiner, by the chairperson or a member of the committee designated by him/her. At the request of the student, sentences 1 and 2 shall also apply *mutatis mutandis* to the first resit in accordance with the supplementary Code of Examination Regulations.

Section 18
Notification of the Examination Results

After completion of the Veterinary Examination, the Chairman shall notify the competent authority of the names of the students and the examination results.

Sub Chapter 2
Scientific Stage of the Preliminary Veterinary Examination
(Preliminary Physics)

Section 19
Examination Subjects

Preliminary Physics shall comprise the following examination subjects

1. Physics, including the fundamentals of Health Physics,
2. Chemistry,
3. Zoology, and
4. Botany, including Nutritional Science, Toxicology and Herbalism.

The examinations shall be sat by the end of the first year of studies.

Section 20
Proof

(1) The following proof shall be necessary for admission to the examinations

1. certification of regular, successful attendance at the seminars or exercises in the subjects set by the university for the examination subject in

   a) Physics, including the fundamentals of Health Physics,
   b) Chemistry,
   c) Zoology, and
   d) Botany, including Nutritional Science, Toxicology and Herbalism;

2. certification of regular, successful attendance at a course of medical terminology conducted by the university or recognised as equivalent by the Chairman of the examination committee; this proof may be replaced if a knowledge of Latin or Greek in accordance with the Decision of the Conference of Education Ministers of 26 October 1979 (Joint Ministerial Gazette 1980 p. 642) can be demonstrated.

(2) The university may offer students the opportunity to prove in an oral examination within the first month of starting the first semester of studies that they have sufficient knowledge of the subjects designated in (1) no. (1) (a) to (d) above. Proof of sufficient knowledge in accordance with Section 21 in one or more of these subjects shall be deemed as a passed examination within the meaning of Section 19 and as proof within the meaning of (1) above. If the examination is not passed in one or more subjects in accordance with sentence 1, the examination shall be deemed not to have been passed.

Section 21
Contents of the Examination

The examinations in the examination subjects of Physics, including the fundamentals of Health Physics, Chemistry, Zoology and Botany including Nutritional Science, Toxicology and Herbalism, shall cover the main basic knowledge required to understand natural processes and to subsequently apply them in veterinary medicine.

Sub-Chapter 3
Anatomical-Physiological Stage of the Preliminary Veterinary Examination (Physics)

Section 22
Examination Subjects

Physics shall comprise the following examination subjects

1. Anatomy,
2. Histology and Embryology,
3. Physiology,
4. Biochemistry, and
5. Animal Breeding and Genetics including Livestock Judging.

The examinations should be taken by the end of the second year of studies.

Section 23
Proof

(1) The following proof shall be necessary for admission to the examinations

1. certification of having passed Preliminary Physics no longer than one and a half academic years earlier,

2. certification of having regularly and successfully attended seminars and exercises in subjects set by the university for the respective examination subject in

   a) Anatomy,
   b) Histology,
   c) Embryology,
   d) Physiology,
   e) Biochemistry, and
   f) Animal Breeding and Genetics, including Livestock Judging

3. certification from the university of having attended a 70-hour exercise in two consecutive weeks on Agriculture, Animal Breeding and Animal Husbandry on a teaching farm and

4. certification from the university of having regularly and successfully attended at least 84 hours of optional teaching events in subjects in accordance with no. 2.

(2) The requirements of (1) no. 3 shall be deemed to have been met if an agricultural course with assistants' examination, a four-week agricultural placement on a recognised teaching farm or another comparable course recognised by the university has been completed.

Section 24
Anatomy

In the examination subject of Anatomy, the students shall completely or partially explain the contents of a bodily cavity, where necessary shall also remove it and each prepare a subject on the locomotor system and the organs or organ systems on the basis of existing preparations or preparations to be made up.

Section 25
Histology and Embryology

In the examination subject of Histology and Embryology, the students shall demonstrate their knowledge of cell theory, histology and organology on the microscopic-anatomical preparation as well as in general and specific development theory.

Section 26
Physiology

In the examination subject of Physiology, the students shall solve or evaluate an exercise problem from the field of Physiology and explain it and demonstrate their knowledge of the physiological foundations of living processes and the normal functional course of individual organ systems and their regulation in the organism as a whole. Nutritional physiology shall be considered.

Section 27
Biochemistry

In the examination subject of Biochemistry, the students shall solve or evaluate an exercise problem and explain it and demonstrate their knowledge of the biochemical and molecular-biological foundations of living processes and their management. The particularities of the intermediary metabolism among pet animals and production animals, as well as the biochemistry of nutrition, shall be considered.

Section 28
Animal Breeding and Genetics including Livestock Judging

In the examination subject of Animal Breeding and Genetics, the students shall assess a pet animal in terms of its commercial or breeding value and prove that they have acquired sufficient knowledge of genetics and in breeding pet animals.

Sub Chapter 4
Veterinary Examination

Section 29
Examination Subjects

The Veterinary Examination shall comprise the examination subjects

1. Animal Husbandry and Animal Hygiene,
2. Animal Welfare and Ethnology,
3. Animal Nutrition,
4. Clinical Propadeutics,
5. Virology
5. Bacteriology and Mycology,
7. Parasitology,
8. Control of Animal Epidemics and Infection Epidemiology
9. Pharmacology and Toxicology,
10. Law on Pharmaceuticals and Narcotics,
11. Poultry Diseases,
12. Radiology,

13. General Pathology and Special Pathological Anatomy and Histology,
14. Food Science including Food Hygiene,
15. Meat Hygiene,
16. Milk Science,
17. Reproductive Medicine,
18. Internal Medicine,
19. Surgery and Anaesthesiology, and
20. Forensic Veterinary Medicine, Law Governing Professional Matters and Professional Conduct.

Section 30
Special regulations for the final examinations

The examinations in the subjects General Pathology and Special Pathological Anatomy and Histology, Food Hygiene, Meat Hygiene, Milk Hygiene, Internal Medicine, Surgery and Anaesthesiology, Reproductive Medicine, as well as Forensic Veterinary Medicine, Law Governing Professional Matters and Professional Conduct, may not be completed prior to the end of the eighth semester.

Section 31
Proof

(1) The following proof shall be necessary for admission to the examinations

1. certificate relating to the Preliminary Veterinary Examination,
2. certification of having regularly and successfully attended the seminars or exercises set by the university for the respective examination subject of the Veterinary Examination,
3. certification of having attended a practical component of studies necessary for the respective examination subject in accordance with Sections 54 to 62 or another comparable substitute training acknowledged by the university.

(2) Furthermore, the following proof must be provided prior to conclusion of the examinations in accordance with Section 30:
1. certification of having regularly and successfully attended the courses in Biometry, Nutritional Science, Immunology,
2. certification of having studied veterinary medicine for a total of at least five-and-half study years, of which at least three study years after having passed the Preliminary Veterinary Examination, and
3. certification of having regularly and successfully attended for at least 224 hours optional courses, hours from optional courses in accordance with Section 23 (1) no. 4 not being taken into account.

Sub-Chapter 5
Contents of the teaching and study subjects
http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE003300000

Section 32
Animal Husbandry and Animal Hygiene

The examination in the subject of Animal Husbandry and Animal Hygiene shall cover the keeping and care of pet animals and production animals and the importance of environmental influences on the health and performance of the animals as well as the impacts of keeping animals on the environment. In the case of animals that are used to obtain food, the impact of keeping them on the quality of the foodstuffs obtained shall be taken into account.
http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE003400000

Section 33
Animal Welfare and Ethnology

In the examination subject Animal Welfare and Ethnology, students shall prove their knowledge of housing and care of animals that is species-specific and appropriate to their behaviour, as well as of the protection of the animals in animal trade, in animal transport, in slaughtering or killing and in animal

testing, as well as their knowledge of animal welfare regulations with their ethical and scientific foundations, and in ethnology.
http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE003500000

Section 34
Animal Nutrition

The examination in the subject of Animal Nutrition shall cover nutrition, taking special account of the pathogenesis of illnesses caused by nutrition, a reduction in fertility and performance, the environmentally relevant effects of nutrition, including the possible introduction of unwanted substances into foodstuffs of animal origin and the foundations of dietetics, taking special account of nutritional science as well as the provisions of fodder legislation that are important in the veterinary field.
http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE003600000

Section 35
Clinical Propadeutics

In the examination subject Clinical Propadeutics, the students shall examine an animal and prove that they have familiarised themselves with the basics of the clinical examination methods.

Section 36
Virology

In the examination subject of Virology, the students shall demonstrate their knowledge of the important types of virus in veterinary medicine, aetiology, the course, diagnosis, prevention and treatment of the illnesses they cause in animals as well as their importance to human health. Questions of immunology, epidemiology and epizoology shall be taken into account in this connection.

Section 37
Bacteriology and Mycology

In the examination subject of Bacteriology and Mycology, the students shall prepare a microbiological preparation, examine it, explain it and demonstrate their knowledge of the important types of bacteria and fungi in veterinary medicine, aetiology, the course, diagnosis, prevention and treatment of the illnesses they cause in animals as well as their importance to human health. In this connection, questions of immunology, epidemiology and epizoology shall be taken into account.

Section 38
Parasitology

In the examination subject of Parasitology, the students shall prepare a parasitological preparation, examine it, explain it and demonstrate their knowledge of the biology of animal parasites and the identification, course, treatment and prevention of parasitic illnesses as well as the importance of animal parasites to human health. In this connection, questions of immunology, epidemiology and epizoology shall be taken into account.

Section 39
Control of Animal Epidemics and Infection Epidemiology

In the examination subject Control of Animal Epidemics and Infection Epidemiology, students shall prove their knowledge of the general principles of the causes, spread, combating and economic impact of animal epidemics, including their prophylaxis, fundamentals of infection epidemiology, the law on animal epidemics, and the regulations on processing animal offal.
http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE004100000

Section 40
Pharmacology and Toxicology

The examination in the examination subject of Pharmacology and Toxicology shall above all cover the effects and interactions of pharmaceuticals and other active agents in the healthy and diseased organism, a basic knowledge of the therapeutic use of these substances and the associated risks for animals and

humans, as well as Pharmacokinetics, particularly taking into account species-specific biotransformation and the excretion of such substances through an animal's body. The corresponding impact and characteristics of poisons and environmental contaminants in the healthy or diseased organism, as well as the therapy of acute and chronic poisoning, shall also be covered.

Section 41
Law on Pharmaceuticals and Narcotics

In the examination subject of Law on Pharmaceuticals and Narcotics, students shall prove that they can select and prescribe suitable pharmaceuticals based on at least three symptoms, as well as that they have knowledge of the principles of determining maximum residual amounts and on the derivation of waiting periods. Further, they shall prepare two pharmaceuticals in accordance with a prescription and prepare an invoice in accordance with the provisions applicable to pharmaceuticals prices. Over and above this, students shall prove their knowledge of the relevant legal provisions regarding the sale of pharmaceuticals and narcotics, as well as of the provisions and measures to avoid residuals in animal-origin food.

Section 42
Poultry Diseases

In the examination subject of Poultry Diseases, the students shall demonstrate their knowledge of the aetiology, pathogenesis, diagnostics, prophylactics and treatment of diseases of commercial poultry, wild, fancy and zoo birds, taking special account of keeping and feeding with regard to the origin and treatment of diseases.

Section 43
Radiology

(1) The examination in the examination subject of Radiology shall cover
1. the characteristics and impact of ionising rays,
2. the fundamentals of radiobiology,
3. the impact of ionising radiation on people, animals, food, fodder and the environment,
4. methods to prove the impact of radiation and to ascertain doses among employees and persons looking after animals,
5. methods of proving contamination with radioactive substances,
6. physical-technical principles and principles of the application of imaging diagnostic procedures, including the presentation of alternatives to the application of ionising radiation,
7. fundamentals of radiotherapy, as well as
8. the statutory, practical and technical radiological protection of employees and persons looking after animals (content of examinations from nos. 4 to 8 of the Basic Course in Radiological Protection acc. to Annex 1 of the Guideline on Radiological Protection in Veterinary Medicine (*Richtlinie Strahlenschutz in der Tierheilkunde*); Joint Ministerial Gazette (*Gemeinsames Ministerialblatt – GMBl*) 2005 p. 666).

(2) The examination successfully passed in accordance with (1) shall be recognised as a Basic Course in Radiological Protection acc. to Annex 1 of the Guideline on Radiological Protection in Veterinary Medicine if the competent agency has previously found that the prerequisites (contents of the teaching from Annex 1 of the Guideline on Radiological Protection in Veterinary Medicine) have been met.

(3) The acquisition of the expertise for the field of X-ray diagnostics cannot be commenced until after the examination has been successfully taken in the examination subject of Radiology during clinical training, and shall be orientated in line with the requirements of the Guideline on Radiological Protection in Veterinary Medicine.

Section 44
General Pathology and Special Pathological Anatomy and Histology

In the examination subject of General Pathology and Special Pathological Anatomy and Histology, the students shall demonstrate that they have acquired basic knowledge of the origins and course, the characteristics and the identification of pathological processes. Furthermore, they shall

identify and explain pathological-histological preparations, carry out an autopsy on an animal cadaver or examine one organ or several organs, explain the findings and then write them down as well as demonstrate their knowledge of identifiable pathological processes and their pathogenesis.

Section 45
Food Science including Food Hygiene

In the examination subject Food Science including Food Hygiene, students shall examine animal-origin food, with the exception of milk or dairy products, evaluate its characteristics, composition and marketability and note the findings. They shall prove their knowledge of their significance for the food of humans, on production, technology of the manufacture and treatment, as well as on their microbiological, chemical and other qualities. In particular, aspects of quality that are relevant to hygiene and health shall be taken into account in doing so. Furthermore, they shall prove knowledge of the influences exerted on food safety and quality at all levels of the food chain and the animals used for production, food, including the measures for quality assurance, evaluation of residues and of the relevant provisions of the law on food. Over and above this, students shall prove that they can categorise the potential causes of errors and faults, the hazards and the possible risks which can occur at all stages of the food chain, in the context of a risk analysis in accordance with scientific principles and take suitable control and correction measures.

Section 46
Meat hygiene

In the examination subject Meat Hygiene, students shall examine an animal for slaughter in the living state and an animal for slaughter in the slaughtered state or parts of a slaughtered animal or culled furred game in accordance with the valid legal provisions, shall make a statement regarding the suitability of the meat for human consumption and record findings and evaluations. They shall further prove their knowledge of the hygienic production and treatment of the meat, the knowledge underlying examination of the animal for slaughter and meat and of the specific legal foundations of meat hygiene, as well as the fundamentals of theory on the operation of abattoirs. To a particular degree, they shall prove their knowledge as regards the principles, concepts and methods of good manufacturing practice, of quality management, of risk analysis on a scientific basis and of a system of critical control points (HACCP procedure; Hazard Analysis Critical Control Point) and shall use case examples to examine and evaluate them. The prevention and containment of food-related risks to human health, as well as methods of epidemiology and monitoring and surveillance systems, shall be explored here.

Section 47
Milk Science

In the examination subject of Milk Science, the students shall examine and assess a milk sample (freshly milked sample, untreated milk sample or treated milk sample) or a dairy product and complete a written examination report. Furthermore, they shall demonstrate their knowledge of the physiology and pathology of milk formation, the hygiene and technology of milking and milk processing as well as of their health-hygiene and especially their microbiological and qualitative influence on the production, processing and marketing of milk and dairy products, including measures for quality assurance, as well as of the relevant legal provisions.

Section 48
Reproduction Medicine

In the examination subject of Reproduction Medicine, students shall examine an animal for sexual health or a pet animal of newborn age, shall make a diagnosis including physical and laboratory diagnostic examination methods, shall evaluate the anticipated course of treatment, shall draw up and explain a therapeutic plan, shall where appropriate initiate or implement treatment and shall draw up a written record of the findings. They shall furthermore prove their knowledge of gynaecology, including the illnesses of the mammary gland, obstetrics including neonatology and obstetric operations, normal reproduction and its disturbances among male domestic animals, as well as reproductive hygiene, artificial insemination and other biotechnical measures, including herd husbandry.

Section 49
Internal Medicine

In the examination subject of Internal Medicine the students shall examine an animal suffering from an internal disease or a skin disease or several such animals, shall make a diagnosis involving physical and laboratory diagnostic investigative methods, shall assess the probable course of the disease, shall draw up and explain a treatment plan, shall where appropriate start or administer the treatment, and shall draw up a written findings record about an examined animal. Furthermore, they shall demonstrate their knowledge of the theory of internal diseases and skin diseases of animals, taking account of general and special therapy as well as herd care.

Section 50
Surgery and Anaesthesiology

In the examination subject of Surgery and Anaesthesiology, students shall examine an animal to be treated surgically or several such animals, shall make a diagnosis, where appropriate including physical and laboratory diagnostic examination methods, shall evaluate the anticipated course of the disease, shall draw up and explain a therapeutic plan, shall where appropriate initiate or implement treatment and shall draw up a written record of the findings with regard to one of the animals to be examined. They shall carry out an operation or several operations on living or dead animals, including the necessary anaesthesiological activity. They shall furthermore prove their knowledge of surgery and anaesthesiology, as well as in particular of eye diseases, dentistry, hoof and claw diseases and hoof and horseshoe theory.

Section 51
Forensic veterinary medicine, law governing professional matters and professional conduct

In the examination subject of Forensic Veterinary Medicine, the Law Governing Professional Matters and Professional Conduct, students shall prove their knowledge of the law of obligations and of its impact on the purchase of animals and the pre-purchase veterinary examination of horses and knowledge regarding veterinary surgeons' duties of care and the law on liability. Furthermore, they shall demonstrate their knowledge of the provisions of the law on liability and of criminal law that are important for exercising the profession of veterinary surgeon, as well as of the organisation and history of the veterinary profession and of the law governing professional matters and professional conduct regarding veterinaries, including the legal particularities of running a surgery.

Section 52
Special clinics for specific types of animal

(1) Solidungulents, ruminants, pigs, as well as small and domestic animals, shall be considered in the examinations in accordance with Sections 48, 49 and 50.

(2) At universities that have established special clinics for specific types of animal, the examinations may be distributed in accordance with the decision of the examination committee in line with the available clinics.

Section 53
Interdisciplinary Subject

In the interdisciplinary subject, on the basis of the knowledge acquired during the previous studies and those continued in parallel, students shall be familiarised with contents and tasks in the clinical treatment of domestic animals and livestock which are of practical relevance. Here, in particular contents of internal medicine, reproductive medicine, livestock management and surgery shall be portrayed with the participation of pathological anatomy, clinical pharmacology, animal feeding, animal breeding, animal husbandry, law governing professional matters of veterinaries, animal welfare and ethnology, topographical anatomy, epidemiology, infectious diseases and control of animal epidemics in an interdisciplinary manner. Students should be afforded the opportunity to identify and process the development, diagnosis and therapy of diseases using concrete individual cases. Here, the contents of the teaching of clinical veterinary medicine and of other subjects are to be taken into consideration, particularly focussing on the impact of the application of ionising radiation or of radioactive substances,

the residue problems and environmental contaminants as well as food, meat and milk hygiene, in particular in the fields of risk evaluation, quality assurance and marketability of the food obtained from animals at all levels of food production at interdisciplinary level. The potential impact of the diseases of animals and the consequences of their therapy on human health and on the environment are also to be taken into consideration.

CHAPTER 3
THE PRACTICAL COMPONENT OF STUDIES

http://bundesrecht.juris.de/tappv/BJNR182700006.html

http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE005500000

Section 54
Training Places

The training in accordance with this chapter shall be completed on all weekdays in the respective facilities outside the lecture periods, and as a rule shall be performed on a full-time basis to a suitable degree in line with the workload. The time of the working off shall be determined by the university.

Sub-chapter 1
The training of control activities, methods and techniques for the field of food, including the examination of fresh meat

Section 55
Training Places, Duration

(1) Training in control activities, methods and techniques for the field of food, including the examination of fresh meat, shall last for 75 hours in at least two weeks, which are to be consecutive. It shall be effected with an authority which is competent for hygiene control in slaughterhouses or food establishments or in units responsible for monitoring the handling of food or food inspection, in facilities of the food industry which monitor the quality and unobjectionability of food, or in relevant university facilities.

(2) The practical training in examining animals for slaughter and meat at an authority responsible for examining animals for slaughter and meat in an abattoir shall last 100 hours within at least three weeks which are to be consecutive.

(3) Deployment in the context of training in accordance with (2) may only be effected in establishments which have approval and in which full-time official veterinary surgeons work who are responsible for the monitoring activity. If only cattle or only pigs are slaughtered in an establishment, at least 30 hours shall be served in an abattoir with the respectively other type of animal during the training time in accordance with (2).

http://bundesrecht.juris.de/tappv/BJNR182700006.html

Section 56
Contents of the Course

(1) During the training in accordance with Section 55 (1), the students shall familiarise themselves under the close supervision of full-time veterinary surgeons working at the facility responsible for the control activities, control of foodstuffs in the establishments or at the competent authority or other facility, or other qualified persons, with the assessment of the state of hygiene of the premises and the equipment, as well as the methods to control the hygiene status of the plants and shall practice evaluating the treatment and processing technology. The training shall also encompass the control activities, methods and techniques for the food domain. Further, in line with the spectrum of tasks of the authority or of another facility, students are to practice and be given extensive skills in the control of various foodstuffs, to independently carry out an evaluation of the marketability or the industrial hygiene of a control subject on a scientific basis. The points of view of food technology and quality assurance should also be taken into account here.

(2) During the training in accordance with Section 55 (2), under the close supervision of full-time veterinary surgeons working at the authority responsible for the examination of animals for slaughter and meat, students shall practice the examination and assessment of the animal for slaughter

and of the meat of various types of animal. Over and above this, students shall learn about treatment of the animal for slaughter in line with animal welfare.

(3) Students shall receive a certificate of the training in accordance with Annexes 6 and 7 in accordance with Section 55 (1) and (2).

Sub-Chapter 2
Training in the Therapeutic Practice of a Veterinary Surgeon or in an Animal Hospital

Section 57
Training Places, Duration

(1) The First Stage of training, which may be completed in the therapeutic practice of a veterinary surgeon or in an animal hospital or equally divided between the two facilities, shall last for 150 hours in at least four weeks, which are to be consecutive. It shall not be completed prior to passing the Preliminary Veterinary Examination.

(2) The Second Stage of training, which may be completed in the therapeutic practice of a veterinary surgeon or in an animal hospital or in a combination of no more than four such facilities, shall last for 700 hours notwithstanding Section 60, and shall be completed in at least 16 weeks, which are to be consecutive, in accordance with the Rules for Study of the University.

(3) The acquisition of the certificate of regular, successful attendance at the courses specified for the examination subject of Radiology shall be a prerequisite for the commencement of training in accordance with (2).

Section 58
Training in the Therapeutic Practice of a Veterinary Surgeon

(1) The training in the therapeutic practice of a veterinary surgeon may be completed only with veterinary surgeons who

1. have been independently running a practice for at least two years,

2. run an in-house veterinary pharmacy, and

3. have not been punished by a professional tribunal in the two years immediately preceding the training.

(2) During the practical training in accordance with Section 57, the students shall inform themselves under the supervision, guidance and responsibility of the owner of the practice in all areas of the veterinary activities concerned.

(3) The students shall receive certificates in accordance with Annexes 8 and 9 for the training.

Section 59
Training in an Animal Hospital

(1) Training shall be completed in a university's hospitals. It may also be completed in other hospitals under veterinary management that have recognition as an animal hospital from the competent Chamber of Veterinary Surgeons.

(2) During the training in accordance with subsection (1) the students shall inform themselves under the supervision, guidance and responsibility of the hospital management in the field of the animal hospital concerned. In this connection they shall adhere to the theoretical-scientific treatment of the fields of knowledge affected by the practical training.

(3) The students shall receive certificates in accordance with Annex 10 for the training.

Sub-Chapter 3
Elective Placement

Section 60
Training Places, Duration

Part of the placement in accordance with Section 57 (2) of a minimum of 75 hours in two weeks and a maximum of 350 hours in eight weeks may be completed

1) in an institute of a university with a scientific-medical discipline,
2) in a Federal or *Land* research institute with a scientific-medical purpose,
3) in a veterinary examination institute,
4) in an office of the veterinary administration,
5) at a state or state-sponsored animal health service, in an animal health office or in an insemination station,
6) in the pharmaceutical industry in the development, manufacture and testing of drugs, in the food industry in the manufacture and testing of foods of animal origin or in the fodder industry in the manufacture and testing of mixed fodder, or
7) in scientifically managed zoological gardens.

The students shall receive certificates in accordance with Annex 11 for the training.

Sub-Chapter 4
Practical Training in the Public Veterinary Service

Section 61
Training Places, Duration

The practical training in the public veterinary service shall last for 75 hours in at least two weeks, which are to be consecutive. It shall take place in offices of the veterinary administration.

Section 62
Contents of the Course

(1) The practical training in the public veterinary service in accordance with Section 61 shall give the students the opportunity to deepen and broaden their knowledge and skills. The students shall comprehensively practise the tasks of the veterinary administration. Furthermore, they are to obtain knowledge of administrative and regulatory law, as well as of organisation and administration.

(2) The students shall receive a certificate in accordance with Annex 12 for the successfully completed training.

CHAPTER 4
CERTIFICATION

Section 63
Application for Certification

(1) The application for certification as a veterinary surgeon shall be addressed to the competent authority in the *Land* in which the applicant has passed the Veterinary Examination. The following shall be enclosed with the application:

1. the identity card or with foreigners the passport of the applicant,

2. a declaration as to whether criminal court proceedings or investigations by the public prosecutor are pending over the applicant,

3. a medical certificate, which may not be more than one month old, according to which the applicant is not unsuitable for practising the profession for health reasons, and

4. a birth certificate or an excerpt from the family book of the parents, or in the case of married persons also the wedding certificate or an excerpt from the family book kept for the marriage, and
5. an official police clearance certificate, which may not have been issued more than one month prior to submission,
6. the certificate of the Veterinary Examination.

If an applicant who is not a national of one of the other Member States of the European Union or of another party to the Treaty on the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right has been registered with the police in Germany for less than two years, he or she shall also enclose with his or her application a certificate in accordance with (3) sentence 1 or, if a certificate of this kind cannot be provided, a declaration that reveals whether he or she has a criminal record in the state where he or she was previously resident, whether criminal court proceedings or investigations by the public prosecutor are pending on him or her there or whether he or she has been prohibited from practising the veterinary profession there due to disciplinary or administrative measures.

(2) If certification is to be issued in accordance with Section 4 (1), (1a), (2) or (3) or in accordance with Section 15a of the Federal Veterinary Code, the application shall be addressed to the competent authority in the *Land* where the veterinary profession is to be practised. If the training has not taken place in accordance with the provisions of this Ordinance, the proof in accordance with Section 4 (6) sentence 1 Nos. 2, 5 and 7 of the Federal Veterinary Code shall be submitted instead of the certificate in accordance with (1) sentence 6 no. 6. The competent authority shall confirm the receipt of the documents to the applicant within one month, and shall inform him or her which documents are missing. If the proof has not been issued in German, a certified translation thereof shall also be submitted. The competent authority may demand the submission of further proof, in particular proof of previous professional activity. In the case of applicants who submit proof in accordance with Section 4 (1a) sentence 1 of the Federal Veterinary Code as nationals of a Member State of the European Union or of another party to the Treaty on the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right, further proof, particularly proof of professional activity, may be requested only if the Federal Veterinary Code so provides or this appears to be necessary for particular reasons. In cases falling under sentence 2, the proof demanded in (1) no. 4 cannot be demanded from the applicant unless proof of training issued in a third state has not yet been recognised in another Member State.

(3) Instead of the certificate cited in (1) sentence 2 no. 5, nationals of one of the other Member States of the European Union or of another party to the Treaty of the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right may submit documents in accordance with Section 4 (6) no. 3 of the Federal Veterinary Code. If the applicant has already practised the veterinary profession in his or her Member State of origin, the authority responsible for issuing the certification may request information via the Federal Ministry of Food, Agriculture and Consumer Protection from the competent authority of the Member State of origin, for instance about any punishments or other professional or criminal measures imposed on the applicant due to serious and precisely determined unprofessional conduct or punishable actions concerning the practise of the profession in the Member State of origin. If in cases of sentence 1 or 2 the authority responsible for issuing the certification has knowledge of circumstances that have occurred outside the area of application of the Federal Veterinary Code and that could be important with respect to the requirements of Section 4 (1) no. 2 of the Federal Veterinary Code, it shall inform the competent office in the Member State of origin via the Federal Ministry of Food, Agriculture and Consumer Protection and notify it of the result and the conclusions that it draws from the certificates and proof issued by it. The certificates and notifications cited in sentences 1 to 3 shall be treated in confidence. They may be used as a basis for the assessment only if they have been issued no more than three months prior to submission.

(4) Instead of the medical certificate cited in (1) sentence 2 no. 3, nationals of the other Member States of the European Union or of another party to the Treaty on the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right may submit an appropriate certificate from the competent authority in their Member State of origin. (3) sentences 4 and 5 shall apply *mutatis mutandis*.

(5) A decision shall be made on the application of a national of a Member State of the European Union or of another party to the Treaty on the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right, at the latest three months after submission of the documents to be submitted by the applicant in accordance with (1) to (4). Insofar as it is a matter of recognition of proof of training in accordance with Section 4 (1a) sentence 3 or Section 4 (2) sentence 2 no. 3 of the Federal Veterinary Code, four instead of three months shall be available for cases in accordance with sentence 1.

Section 64
Certificate

The certificate shall be issued in accordance with the pattern of Annex 13. It shall be served on the applicant.

CHAPTER 5
SUPPLEMENTARY PROVISIONS

Section 65
Crediting Study Periods and Examinations

(1) In the case of people who are Germans within the meaning of Article 116 of the Basic Law, nationals of one of the other Member States of the European Union or of another party to the Treaty on the European Economic Area or of a contracting party to which Germany and the European Community or Germany and the European Union have contractually granted such a legal right or stateless foreigners within the meaning of the Act on the Legal Status of Stateless Foreigners in Federal Territory, the following shall be fully or partially credited provided that they are equivalent

1. periods spent on a course of related study at a university in Germany,

2. periods spent on a course of study of veterinary medicine or a related course of study at a university abroad.

(2) Subject to the proviso of (1), examinations that have been sat within the context of study in accordance with (1) Nos. 1 and 2 shall be recognised.

(3) The crediting cited in (1) and the recognition cited in (2) may take place for other people.

(4) Study periods shall be credited and examinations recognised upon application.

Section 66
Competent Authority

(1) The decisions in accordance with Section 65 shall be made by the competent authority in the *Land* in which the applicant in the area of application of this Ordinance

1. is registered or enrolled to study veterinary medicine, or
2. has submitted an application for registration or enrolment for studies in veterinary medicine.

In the case of sentence 1 no. 2, the application in accordance with Section 65 is to be submitted with the application for registration or enrolment; a decision in accordance with Section 65 shall be linked with the decision on registration or enrolment.

(2) The applicant shall receive a certificate about the decision made. The certificate shall be valid as proof within the meaning of Sections 20, 23 and 31 subject to the proviso of its contents.

Section 67
Exceptions

The university at which the student is enrolled may on request allow exceptions to the provisions

1. of Section 6,

2. of Section 20 (2) sentence 1 with regard to the prescribed period to take the examination,

3. of Section 23 (1) no. 1 that the applicant must have passed Preliminary Physics no more than one and a half academic years earlier for admission to the examination,

4. of Section 31 (2) no. 2 that the applicant must have studied veterinary medicine for at least three academic years after passing the Preliminary Veterinary Examination for admission to the examination,

5. of Section 58 (1) no. 1 with respect to the length of independent running of a practice insofar as this is required to avoid an unintended hardship and the goal of the training is not impaired. Exceptions granted in accordance with sentence 1 Nos. 2 to 5 shall also apply as proof for admission to the subsequent examination stages subject to the proviso of their contents.

Section 68
Transitional Provisions

(1) Students who have registered for the Preliminary Veterinary Examination prior to 1 October 2006 shall take the Preliminary Veterinary Examination in accordance with the Ordinance concerning the Certification of Veterinary Surgeons of 10 November 1999 (Federal Law Gazette Part I p. 2162), most recently amended by Article 3 of the Ordinance of 4 December 2002 (Federal Law Gazette Part I p. 4456). In the case of the further studies after passing the Preliminary Veterinary Examination the present Ordinance shall be applied.

(2) Students who have passed the Preliminary Veterinary Examination after 1 October 2006 but have not yet been admitted to the Veterinary Examination shall be trained and examined in accordance with this Ordinance.

(3) For students who have passed one stage of the Veterinary Examination before 1 October 2006 in accordance with the Ordinance concerning the Certification of Veterinary Surgeons of 10 November 1999 (Federal Law Gazette Part I p. 2162), most recently amended by Article 3 of the Ordinance of 4 December 2002 (Federal Law Gazette Part I p. 4456), the Ordinance concerning the Certification of Veterinary Surgeons of 10 November 1999 (Federal Law Gazette Part I p. 2162), most recently amended by Article 3 of the Ordinance of 4 December 2002 (Federal Law Gazette Part I p. 4456) shall also be applicable to the further studies.

(4) For students at universities which have not adapted their Code of Studies and Examination Regulations to this Ordinance by 1 October 2006, (1) to (3) shall apply on proviso that 1 October 2007 shall replace 1 October 2006.

Section 69
Entry into force, cessation of validity

(1) The present Ordinance shall enter into force on 1 October 2006.

http://bundesrecht.juris.de/tappv/index.html - BJNR182700006BJNE007100000

Final formula

The Bundesrat has consented.

Annex 1 (re. Section 2 (1), (2) and (3))
Subject areas and total number of hours*)

(source of the original text: Federal Law Gazette Part I 2006, 1841-1842)

1.	Physics, including fundamentals of Radiophysics	56 hours	23.	General Pathology, Special Pathological Anatomy and Histology including autopsies	182 hours
2.	Chemistry	126 hours	24.	Internal Medicine including Laboratory Diagnostics, Dietetics Reproductive Medicine including Obstetric and Udder Diseases Surgery and Anaesthesiology, Ophthalmic Diseases, Dentistry, Hoof and Claw Diseases Livestock Management and Ambulatory Care	420 hours
3.	Zoology	70 hours			
4.	Botany, including Nutritional Science, Toxicology and Herbalism	70 hours			
5.	Biometry	28 hours			
6.	Theory of the Profession (medical terminology, history of veterinary medicine, professional science)	42 hours	25.	Food Science, including Food Hygiene, Technology and Quality Assurance, Food Toxicology, Residue Evaluation, Food Law and Inspection of Foods; Milk Science including Technology and Quality Quality Assurance, Microbiology of Milk and Milk Inspections; Meat and Poultry Hygiene including Technology and Quality Assurance	252 hours
7.	Anatomy	224 hours	26.	Clinical Training in subjects no. 18, 22 and 24	518 hours
8.	Histology and Embryology	98 hours	27.	Interdisciplinary subject	196 hours
9.	Agricultural Theory	28 hours	28.	Exercises in Agriculture, Animal Breeding and Animal Husbandry	70 hours
10.	Animal Husbandry and Animal Hygiene	56 hours	29.	Practical Training in a Veterinary Practice or a Veterinary Hospital	850 hours
11.	General Radiology and Clinical Radiology	42 hours	30.	Practical Training in Hygiene Control and Control of Foodstuffs and in the Inspection of	175 hours

				Animals for Slaughter and Meat	
12.	Physiology, Biochemistry	280 hours	31.	Practical Training in the Public Veterinary Service	75 hours
			32.	Optional Courses that the student must also attend	308 hours
13.	Animal Breeding and Genetics, including Breeding Theory and Livestock Judging	84 hours			
14.	Clinical Propadeutics	98 hours			
15.	Animal Welfare and ethnology	84 hours			
16.	Laboratory Animal Science	14 hours			
17.	Animal Nutrition and Nutritional Science	98 hours			
18.	Forensic Veterinary Medicine, Veterinary Professional Law	28 hours			
19.	Poultry Diseases	28 hours			
20.	Pharmacology and Toxicology, including Clinical Pharmacology, Drug and Anaesthesia Law, Prescription and Drug Preparation Theory, Assessing Risks	126 hours			
21.	Bacteriology, Mycology, Virology, Parasitology, Immunology, Control of Animal Epidemics, Epidemiology	266 hours			
22.	Diseases in Reptiles, Amphibians, Fish and Honey Bees	28 hours			
					5,020 hours

*) The names of the courses and any merging of various subject areas into combined courses shall not be affected by this Annex.

Annex 2 (re Section 14 (1))

source of the original text: Federal Law Gazette Part I 2006, 1843-1844

Examination Committee for the – Preliminary Veterinary Examination – Veterinary Examination –

Examiner: .....

Institute or Hospital .....

Written Record of the Examination

in .....(examination subject)
The student of veterinary medicine .....
..... (First name and surname)
was examined in the above-mentioned examination subject on .....
Examiners involved in accordance with Section 9 (2) of the Ordinance concerning the Certification of Veterinary Surgeons:

.....

.....
Subject matter of the examination:*) .....
.....
.....
.....
Assessment of the achievement: .....
.....
.....
.....
....., (date).....
....
(Signature of record keeper, (Signature of examiner)
unless examiner has produced the written record)

*) This is space for the course of the examination or the contents to be entered in key words.

Resit

on .....

Examiners involved in accordance with Section 17 (3) sentence 1 of the Ordinance concerning the Certification of Veterinary Surgeons:

.....

.....

Students admitted in accordance with Section 9 (3) sentence 2 of the Ordinance concerning the Certification of Veterinary Surgeons – a representative of the competent Chamber of Veterinary Surgeons – were – not – present at the examination (if such people were present: The student gave his or her consent to the presence of these people.)

Subject matter of the examination:*) .....

.....

.....

.....

Assessment of the achievement: .....

.....

.....

.....

....., (date).....

....

(Signature of the further committee member) (Signature of examiner)

.....

(Signature of record keeper,
unless examiner has produced the written record)

*) This is space for the course of the examination or the contents to be entered in key words.

Annex 3 (re Section 16 (1))

source of the original text: Federal Law Gazette Part I 2006, 1845

The Chairman of the Examination Committee for the Preliminary Veterinary Examination

at ..... (University)

in ..... (City)

Certificate
on the Results
of the Scientific Stage of the Preliminary Veterinary Examination
(Preliminary Physics)
The student of veterinary medicine .....

(First name and surname)

born on ..... 19.. in .....

was awarded the following marks in the Scientific Stage of the Preliminary Veterinary Examination

1. in Physics including the fundamentals of radiological protection .....

2. in Chemistry .....

3. in Zoology .....

4. in Botany of Fodder, Toxic and Medicinal Plants.....

and thus passed/failed the Scientific Stage of the Preliminary Veterinary Examination on .....*).

Examinations credited: .....
....., (date).....
The Chairman
of the Examination Committee
(Seal)
.....
(Signature)

_____
*) Date of the last examination (or resit).
**) delete what is not applicable

Annex 4 (re. Section 16 (1) and (4))

source of the original text: Federal Law Gazette Part I 2006, 1846

The Chairman of the Examination Committee for the Preliminary Veterinary Examination

at ..... (University)

in ..... (City)

Certificate
on the Results
of the Anatomical-Physiological Stage of the Preliminary Veterinary Examination
(Physics) and of the Overall Results of the Preliminary Veterinary Examination

The student of veterinary medicine

.....

(First name and surname)

born on ..... 19.. in .....

was awarded the following marks in the Anatomical-Physiological Stage of the Preliminary Veterinary Examination
1. in Anatomy .....
2. in Histology and Embryology .....
3. in Physiology .....
4. in Biochemistry .....
5. in Animal Breeding and Genetics, including Livestock Judging .....
and thus – taking account of the examination marks of the Certificate on the Results of the Scientific Stage of the Preliminary Veterinary Examination on .....*) passed the Preliminary Veterinary Examination with the overall result ..... – failed the Anatomical-Physiological Stage of the Preliminary Veterinary Examination **).

Examinations credited:
.....
....., (date).....
The Chairman
of the Examination Committee
(Seal)
.....
(Signature)

*) Date of the last examination (or resit)
++) delete what is not applicable

Annex 5 (re Section 16 (1))

source of the original text: Federal Law Gazette Part I 2006, 1847-1848

The Chairman of the Examination Committee for the Veterinary Examination

at ..... (University)

in ..... (City)

Certificate
on the Results
of the Veterinary Examination and on the Overall Results of the Veterinary Examination

The student of veterinary medicine .....

(First name and surname)

born on ..... 19.. in
.....
was awarded the following marks in the Veterinary Examination

1. in Animal Husbandry and Animal Hygiene.....
2. in Animal Welfare and Ethnology.....
3. in Animal Nutrition.....
4. in Clinical Propadeutics.....
5. in Virology .....
6. in Bacteriology and Mycology.....
7. in Parasitology.....
8. in Control of Animal Epidemics and Infection Epidemiology.....
9. in Pharmacology and Toxicology .....
10. in Law on Pharmaceuticals and Narcotics.....
11. in Poultry Diseases.....
12. in Radiology.....
13. in General Pathology and Special Pathological Anatomy and Histology.....
14. in Food Science including Food Hygiene.....
15. in Meat Hygiene.....
16. in Milk Science.....
17. in Reproductive Medicine.....
18. in Internal Medicine.....
19. in Surgery and Anaesthesiology.....
20. in Forensic Veterinary Medicine, Law Governing Professional Matters and Professional Conduct .....

and thus passed/failed++) the Veterinary Examination on .....*) with the overall result.
Examinations credited: .....

....., (date).....

The Chairman
of the Examination Committee
(Seal)
.....
(Signature)

---

*) Date of the last examination (or resit).
++) delete what is not applicable

Annex 6 (re Section 53 (3))

(source of the original text: Federal Law Gazette Part I 2006, 1849;
or of the individual amendments cf. footnote)

.....
(Name of the authority competent in accordance with Section 55 (1))

Certificate
on Practical Training in monitoring activities,
methods and techniques for the food domain

The student of veterinary medicine
.....
(First name and surname)

completed the practical training in monitoring activities, methods and techniques for the food domain

in the period from ..... to ..... .

During this period in ... hours he/she practised the assessment of the hygienic status of the premises and the installations of the plants as well as the assessment of processing technology under my supervision and guidance. Furthermore, he/she had the opportunity to familiarise himself/herself with methods for monitoring the hygienic status of the plants. Furthermore, he/she has practiced under my guidance the supervision and examination of food.

....., (date).....

(Seal or stamp)
.....

(Signature of the training veterinary surgeon)

Annex 7 (re Section 53 (3))

source of the original text: Federal Law Gazette Part I 2006, 1850

.....
(Name of the competent authority)

Certificate
on the Practical Training
in the Inspection of Animals for Slaughter and Meat

The student of veterinary medicine .....

(First name and surname) completed practical training in the inspection of animals for slaughter and meat

in the slaughterhouse/s in .....

in the period from ..... to ..... .

During this period in … hours he/she practised the assessment of the animals for slaughter and the meat of various animal species under my supervision and guidance. Furthermore, he/she had the opportunity to familiarise himself/herself with the technical procedures in the slaughterhouse.

The slaughterhouse/s correspond/s to the requirements of Section 55 (3) sentence 1 of the Ordinance concerning the Certification of Veterinary Surgeons.

....., (date).....
(Seal or stamp)

.....
(Signature of the training veterinary surgeon)

Annex 8 (re Section 58 (3))

source of the original text: Federal Law Gazette Part I 2006, 1851

.....
(Name and address of the practice owner)

Certificate
on the First Stage of the Practical Training

in the Therapeutic Practice of a Veterinary Surgeon (Section 57 (1) of the Ordinance concerning the Certification of Veterinary Surgeons)

The student of veterinary medicine .....

(First name and surname)
completed practical training in my practice

in the period from ..... to ..... .

During this period in … hours he/she was instructed in all areas of my veterinary activities and involved in regular participation under my supervision, guidance and responsibility.

I swear that I meet the requirements of Section 58 (1) of the Ordinance concerning the Certification of Veterinary Surgeons.

....., (date).....
(Stamp)

.....
(Signature of practice owner)

Annex 9 (re Section 58 (3))

source of the original text: Federal Law Gazette Part I 2006, 1852

.....
(Name and address of the practice owner)

Certificate
on the Second Stage of the Practical Training
in the Therapeutic Practice of a Veterinary Surgeon (Section 57 (2) of the Ordinance concerning the Certification of Veterinary Surgeons)

The student of veterinary medicine .....

(First name and surname)

completed practical training in accordance with Section 58 in my practice

in the period from ..... to ..... (… hours).

I swear that I meet the requirements of Section 58 (1) of the Ordinance concerning the Certification of Veterinary Surgeons.

....., (date).....

(Stamp)
.....
(Signature of practice owner)

Annex 10 (re Section 59 (3))

source of the original text: Federal Law Gazette Part I 2006, 1853

.....
(Name of the Animal Hospital)

Certificate
on Practical Training in an Animal Hospital

The student of veterinary medicine .....

(First name and surname)

completed practical training in accordance with Section 59 of the Ordinance concerning the Certification of Veterinary Surgeons

in .....
(name of the animal hospital)

in the period from ..... to ..... (… hours).

....., (date).....
(Seal or stamp)
.....
(Signature of the head of the animal hospital)

Annex 11 (re Section 60 sentence 2)

source of the original text: Federal Law Gazette Part I 2006, 1854

.....
(Name of the training institute)

Certificate
on Practical Training in an Elective Placement

The student of veterinary medicine .....

(First name and surname)

completed practical training in the elective placement in accordance with Section 60 of the Ordinance concerning the Certification of Veterinary Surgeons

in .....
(name of the training institute)

in the period from ..... to .....

In particular, the training covered the following
activities:.....

Over … hours in… weeks he/she had the opportunity to deepen, broaden and practically apply his/her knowledge in the above-mentioned fields.

....., (date).....
(Seal or stamp)

.....
(Signature of the training veterinary surgeon)

Annex 12 (re Section 62 (2))

source of the original text: Federal Law Gazette Part I 2006, 1855;
or of the individual amendments cf. footnote)

.....
(Name of the unit)

Certificate
on the Practical Training in the public veterinary service

The student of veterinary medicine .....

(First name and surname)

completed practical training in the public veterinary service in our institution.....

in the period from ..... to .....

During this period in … hours over consecutive two weeks he/she was given the opportunity to familiarise him/herself with the fields of public veterinary service under my supervision and guidance.

....., (date).....
(Seal or stamp)

.....
(Signature of trainer)

Annex 13 (re Section 64)

source of the original text: Federal Law Gazette Part I 2006, 1856

Certificate
Mr/Ms
.....

born on .....

in .....

meets the requirements of the Federal Veterinary Code.

With effect from today he/she shall be awarded Certification as a Veterinary Surgeon. Certification shall grant entitlement to bear the professional title of Veterinary Surgeon and to practice the veterinary profession.

....., (date).....

(Seal or stamp)

.....
(Signature)

Bundesgesetzblatt Jahrgang 2016 Teil I Nr. 66, ausgegeben zu Bonn am 29. Dezember 2016

First amendment concerning the

German Ordinance concerning the Certification of Veterinary Surgeons (TAppV)*

from December 20th, 2016

(* This law serves the implementation of Directive 2013/55/EU of the European Parliament and the Council from 20 November 2013 on the amendment of Directive 2005/36/EC on the recognition of professional skills and the ordinance (EU) no. 1024/2012 on administrativ cooperation by means of the internal market's information system ("IMI-Regulation") ABI. L 354 from 28 December 2013, p. 132))

On the basis of § 5 (1) sentence 1, sentence 2 number 1 and sentence 3 of the Federal Veterinary Code (*Bundes-Tierärzteordnung)* in the version of the promulgation of 20 November 1981 (Federal Law Gazette Part I p. 1193), of which § 5 (1) sentence 1 was lastly amended by Art. 379 of the ordinance from 31 August 2015 (Federal Law Gazette Part I p. 1474) and § 5 (1) sentence 2 and 3, lastly amended by Art. 22 of the law from 6 December 2011 (Federal Law Gazette I p. 2515), the Federal Ministry of Food and Agriculture orders:

Article 1

The ordinance concerning the Certification of Veterinary Surgeons from 27 July 2006 (Federal Law Gazette I p. 1827), lastly amended by Art. 380 of the ordinance from 31 August 2015 (Federal Law Gazette I p. 1474), will be amended as follows:

§ 1 will be amended as follows:

In (2) sentence 1 number 1, after the words "necessary basic knowledge" the words "including the necessary references to the domestic and European law" are added.

The following section 3 is added:

"(3) The veterinary training ascertains that knowledge and skills after Art. 38 section 3 of Directive 2005/36/EU of the European Parliament and the council from 7 September 2005 about the recognition of professional qualifications (OJ EC L 255 from 30 September 2005, p. 22) are acquired in the respective and valid wording."

In § 3 (3) number 2 the words "of Article 38 of Directive 2005/36/EC of the European Parliament and the Council of 7 September 2005 on the recognition of professional qualifications (OJ EC L 178 p. 7)" are replaced by the words "of Article 38 of Directive 2005/36/EC".

In § 4 (1) sentence 2, the statement "§ 1 (1)" is replaced with "§ 1 (1) and (3)".

§ 6 sentence 2 is stated as follows:

„Resit examinations shall be sat before the examination committee where the examination was failed"

§ 10 is amended as follows:

In (1) sentence 1, after the words "in writing", a comma and the word "electronically" is added.

In the beginning of (2), the words "at least two, albeit" are added.

§ 14 is amended as follows:

(1) is amended as follows:

aa) In sentence 3 the semicolon and the words “it shall be briefly justified in the written record” are cancelled.

bb) The following sentence is added: „It shall be reasonably justified in the written record.”

In (2), after the word “set in writing”, the words “or electronically” are added.

The following sentence is added to § 15:

„For the decision of aborting an examination after sentence 1 or the declaration under sentence 2, § 14 (1) sentence 4 applies respectively”

§ 17 (3) is amended as follows:

In the first part of sentence 1, the words “at the second resit” are replaced with the words “at the first and second resit”.

In sentence 2, after the word “written”, the words “or electronic” are added.

In sentence 3, the words “sentences 1 and 2” are replaced with the words “sentence 2”.

In § 32,

in sentence 1, after the words “impacts of keeping animals” and

in sentence 2, after the words “impact of keeping”

the words “including the dose of pharmaceuticals” are added.

In § 39 after the words “fundamentals of infection epidemiology”, the comma and the words “the law on animal epidemics, and the regulations on processing animal offal” are replaced with the words “as well as the orders for the domestic and European Animal Health Law, including the right to dispose of animal side products”.

In § 40 sentence 1, after the words “risks for animals and humans”, the words “including risks of possible resistance development” are added.

In § 51 sentence 2, the words “and history” are cancelled.

§ 53 is amended as follows:

In sentence 1, after the words “control of animal epidemics”, the words “including precautionary possibilities for preventing animal epidemics” are added.

The following sentence is added:

„Students shall be taught possibilities for the humane destruction of animals.”

§ 55 is amended as follows:

(2) is stated as follows:

„(2) The practical training in examining animals for slaughter and meat at an authority responsible for examining animals for slaughter and meat in an abattoir shall last 100 hours within at least three weeks which are to be consecutive. Departing from sentence 2, the training can take place in two consecutive time periods. Practical training for examining animals for slaughter and meat within a government agency responsible for the examination of animals for slaughter and meat of poultry in an abattoir may be accepted for the training according to sentence 1 for up to a maximum of 30 hours.”

(3) sentence 2 is replaced by the following sentences:

“The training may be performed at more than one abattoir. If only poultry is slaughtered in an establishment, at least 70 hours of training according to (2) sentence 1 have to be performed in an abattoir processing cattle or pigs. In this case, (2) sentence 2 and 3 do not apply.”

In § 56 (2) sentence 1, the words “animals for slaughter and of the meat of various species of animals” are replaced with the words “animals for slaughter and their meat.”

§ 57 is amended as follows:

In (1) sentence 1, after the word “weeks”, the comma and the words “which are to be consecutive” are cancelled.

In (2), after the word “weeks”, the comma and the words “which are to be consecutive” are cancelled.

Section 63 is amended as follows:

(1) sentence 2 number 4 is superseded.

After (1), the following section 1a is added:

„(1a) In case of justified doubts of the identity of the applicant, especially due to different name designations in the submitted files, the applicant further has to prove their identity with a notarised copy of the birth certificate or an excerpt from the family register, for married persons also the marriage certificate or an excerpt from the family register, kept for the marriage.”

(2) is amended as follows:

aa) In sentence 2, the words “(1) sentence 6 no. 6” are replaced with “(1) sentence 2 no. 6”

bb) Sentence 7 is cancelled.

The following (6) is added:

„(6) The documents required after (1) to (4) can be submitted electronically. In cases of justified doubts about validity of electronically submitted documents, the transfer of notarised copies can be demanded.“

Section 68 is amended as follows:

(1) and (2) are stated as follows:

„Section 10 (2) and Section 17 (3) sentence 1 must be applied in the wording that is valid on the day of the rendition until [insert: Day of the first year following the rendition; the date shall match the day of rendition, however, if that date does not exist, the first day of the following calendar month shall be used].(2) Confirmations according to annex 7 in the wording that is valid until [insert: Date of the day after the rendition], which have been granted before this point, remain valid.“

(4) is repealed.

Annex 7 is stated as follows:

Annex 7

(to § 56 (3))

_____

(Bezeichnung der zuständigen Behörde)

Bescheinigung

über die praktische Ausbildung

in der Schlachttier- und Fleischuntersuchung

Der/Die Studierende der Veterinärmedizin

_____

(Vor- und Zuname)

hat

1. in der Zeit vom _____ bis _____

in dem Schlachthof in _____ ,Tierart: _____,

2. in der Zeit vom _____ bis _____

in dem Schlachthof in _____ ,Tierart: _____,

3. in der Zeit vom _____ bis _____

in dem Schlachthof in _____ ,Tierart: _____,

die praktische Ausbildung in der Schlachttier- und Fleischuntersuchung abgeleistet.

Zu oben Nummer 1.:

Er/Sie hat sich während dieser Zeit _____ Stunden unter meiner Aufsicht und Leitung in der Beurteilung der Schlachttiere und deren Fleisch geübt. Er/Sie hatte ferner Gelegenheit, sich mit dem technischen Ablauf eines Schlachthofes vertraut zu machen. Der Schlachthof entspricht den Voraussetzungen des § 55 Abs. 3 Satz 1 der Verordnung zur Approbation von Tierärztinnen und Tierärzten.

_____, den _____

(Siegel oder Stempel) _____

(Unterschrift der/des ausbildenden Tierärztin/Tierarztes)

Zu oben Nummer 2.:

Er/Sie hat sich während dieser Zeit _____ Stunden unter meiner Aufsicht und Leitung in der Beurteilung der Schlachttiere und deren Fleisch geübt. Er/Sie hatte ferner Gelegenheit, sich mit dem technischen Ablauf eines Schlachthofes vertraut zu machen. Der Schlachthof entspricht den Voraussetzungen des § 55 Abs. 3 Satz 1 der Verordnung zur Approbation von Tierärztinnen und Tierärzten.

_____, den _____

(Siegel oder Stempel) _____

(Unterschrift der/des ausbildenden Tierärztin/Tierarztes)

Zu oben Nummer 3.:

Er/Sie hat sich während dieser Zeit _____ Stunden unter meiner Aufsicht und Leitung in der Beurteilung der Schlachttiere und deren Fleisch geübt. Er/Sie hatte ferner Gelegenheit, sich mit dem technischen Ablauf eines Schlachthofes vertraut zu machen. Der Schlachthof entspricht den Voraussetzungen des § 55 Abs. 3 Satz 1 der Verordnung zur Approbation von Tierärztinnen und Tierärzten.

_____, den _____

(Siegel oder Stempel) _____

(Unterschrift der/des ausbildenden Tierärztin/Tierarztes)

G. Study regulations (StO) of the study programme Veterinary Medicine at the University of Leipzig

University of Leipzig Faculty of Veterinary Medicine

Study regulations of the study programme Veterinary Medicine at the University of Leipzig

From 25 January 2010

In accordance with the Saxon Higher Education Law (SächsHSG) from 10 December 2008 (Federal Law Gazette Part I p. 900), last amended by the law amending Saxon laws, due to the reformulation of the Saxon University Law from 26 June 2009 (SächsGVBl. p. 375), the University of Leipzig has issued the following study regulations on 6 August 2009.

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Annexes

1 Placements according to § 1 (2) no. 2 of the German Ordinance concerning the Certification of Veterinary Surgeons (TAppV) from 27 July 2006

2 Timetable for the study programme Veterinary Medicine at the University of Leipzig according to annex 1 about § 2 of the German Ordinance concerning the Certification of Veterinary Surgeons (TAppV) from 27 July 2006

§1 Scope of application

These study regulations apply to examinations of the study programme Veterinary Medicine at the University of Leipzig. These regulations are based on the German Ordinance concerning the Certification of Veterinary Surgeons (TAppV) from 27 July 2006 (Federal Law Gazette Part I no. 38 p. 1827, published in Bonn on 11 August 2006) which regulate content, duration, structure and examinations, and the additional examination regulations for Veterinary Medicine at the University of Leipzig.

§2 Start of course

Students can only begin the course of studies in the winter semester.

§3 Prerequisites

Students can prove their qualification for the programme with several forms of evidence: general higher education entrance qualification (allgemeine Hochschulreife), a respective subject-related university entrance qualification or a certificate, equally recognised by the legal regulation or the responsible public authority. For certificates acquired outside the territorial validity of the TAppV, the certificate of recognition by the competent authority must be presented to the University.

§4 Matriculation, renewal of matriculation, exmatriculation

The matriculation and renewal of matriculation for the semesters, as well as exmatriculation are regulated by the Saxon Higher Education Law (SächsHSG) and the matriculation regulations of the University of Leipzig.

§5 Introduction to the work of the veterinary profession

In the beginning of the first semester, students are given an introductory class that gives an overview of veterinary work and the scope of activity, including options for further education and training. For this purpose, they are introduced to the Federal Veterinary Regulation and the German Ordinance concerning the Certification of Veterinary Surgeons.

§6 Course consultation

During the study programme, the study department of the dean's office of the faculty for Veterinary Medicine is responsible for consultation.

§7 Classes

(1) Compulsory courses (after annex 1 TAppV) convey the examination requirements after the regulation of the certification to the students. Departing from annex 1 TAppV and in accordance with § 3 (1) while maintaining the total number of hours for the scientific and theoretical part of the programme, the total number of hours was reduced; in the subjects Zoology and Botany, including Toxicology and Herbalism from 70 hours each to 56 hours (20%) and in Chemistry from 126 to 114 hours (9,5%). The hours resulting from this reduction are fully applied to the training of the students in their preclinical semester in small group classes in the clinics of the faculty.

(2) General forms of compulsory and optional courses are as follows:

a) Lectures (L)

b) Seminars und clinical hands-on exercises (S)

c) Courses and exercises, including exercises on animals (E).

Excursions can be part of the classes.

Students should regularly attend the compulsory courses listed under b) to c), including Interdisciplinary Teaching and optional courses, and prove their attendance with the performance requirements predefined by the institutes and clinics.

(3) Compulsory courses, including Interdisciplinary Teaching can be combined on-topic ("Focus"). The content of various disciplines shall be presented in these Foci, fitting the time frame and topic. The scope and allocation of classes on offer according to annex 1 TAppV are not affected.

(4) All institutions of the Faculty of Veterinary Medicine offer optional courses. After § 2 (3) TAppV, teachers and students have the possibility to discuss certain questions in depth in these Elective Courses. Teaching can likewise be organized during the lecture-free periods involving students in the routine work of clinical departments and institutes, thus creating situation of intensive education.

Compulsory elective courses can be grouped by Priority Programmes either based on animal species or topic. Compulsory elective courses, consisting of 126 hours have to be taken after finishing the second year of study, completely and in form of on-topic Priority Programmes; this shall take place in the “Practical Year”.

Choosing a Priority Programme either based on animal species or topic obliges students to register for all respectively assigned lectures. There is no entitlement to attending certain compulsory elective courses/Priority Programmes.

For the Priority Programme “Project” that is recognised with 98 hours compulsory elective, students shall study a subject offered by the faculty, independently and with a supporting tutor. One project can either be taken by one student or a group. The result of the project work is presented orally or in written form (e.g. a poster or presentation).

Details about the content and structure of compulsory elective courses, including “project”, are precisely regulated in the faculty’s guidelines.

(5) There is one full-time teacher of the faculty in charge of each Foci and Priority Programmes. They are, in coordination with the Study Office and the Dean of studies responsible for planning and maintaining proper procedures. The person responsible for the Focus/Priority Programmes appoints another full-time teacher as representative.

(6) The fifth year contains intra- and extramural training for the students (“Practical Year”). The compulsory placements listed in annex 1 of the study regulations after § 55 (1) und (2), § 57 (2), § 60 und § 61 TAppV are determined by the TAppV regarding duration and content. The faculty regulates and specifies details on recognising similar trainings. Intramural training takes place in the form of a clinical-practical training in the departments of the Veterinary Teaching Hospital of the Faculty of Veterinary Medicine, including the Teaching and Research Farm (LVG Oberholz), as well as in the form of compulsory and compulsory elective courses (Priority Programmes and scientific project). Details regarding the respective procedures are regulated and determined by the responsible institutions.

(7) Further, optional courses can be offered, aiming at deepening and enlarging compulsory teaching may be offered.

(8) The classes in the timetable of the faculty (annex 2 of the study regulations) set the scope of compulsory courses of the study programme Veterinary Medicine at the Faculty of Veterinary Medicine at the University of Leipzig. This timetable is a component of the study regulations. Teaching parts of subjects in Foci are not specifically declared in the timetable. Renaming of single lectures, as well as changes of time slots within one programme and changes of the amount of weekly hours per semester are possible and do not require special approval after § 36 (7) SächsHSG and with respect to TAppV.

(9) Details on the current teaching content can be found in subject-specific theme catalogues.

§8 Course of study, standard period of study, examinations

(1) The study programme of Veterinary Medicine is divided in both a scientific-theoretical and a practical part. The course of study is legally binding and regulated regarding the obligatory lectures (content), as well as the order and the course of study by TAppV (§§ 9, 10, 19, 20, 22, 23, 29, 30, 31). The standard period of study is five years and six months for the complete training, including the examination period of the Veterinary Examination. According to § 1 (2) No 3 TAppV, the following examinations are taken:

a) The Preliminary Veterinary Examination, consisting of the Scientific Stage (Vorphysikum, Preliminary Physikum) and the Anatomical-Physiological Stage (Physikum)

b) The Veterinary Examination.

(2) The examination subjects are determined in the TAppV. Form and structure of examinations are described in detail in the additional examination regulations of the Faculty of Veterinary Medicine.

(3) Should a student fail to be admitted to an examination stage (§ 8 TAppV) the programme cannot be continued in the respective semester that follows. Only those lectures that are necessary in order to obtain the admission requirements after TAppV can be taken (§ 8 TAppV).

(4) Only students who have passed at least four subjects of the Physics (§ 22 TAppV) can participate lectures of the fifth semester.

(5) Students are only entitled to take compulsory courses that have to be taken regularly in order to be admitted to the examination, when they are performed according to plan and in the respective semester. Exceptions will be decided upon by the responsible head of training or seminar.

§9 Commencement and publication

These study regulations were executed following the decisions of the faculty board of the Faculty of Veterinary Medicine from 8 July 2009 and the senate of the University of Leipzig from 24 June 2008. They were approved by the rectorate of the University of Leipzig on 6 August 2009. They were confirmed by the Saxon State Ministry for Science and Arts, with the letter from 1 January 2010. The regulations take effect one day after its publication in the official notice from the University of Leipzig, ex post facto from 1 October 2007.

Leipzig, 25 January 2010

Professor Dr. Franz Häuser, Rector of the University of Leipzig

Annex 1: Extramural Practical Training (EPT)

According to TAppV (§ 1 (2) no. 2) from 27 July 2006, the study programme of Veterinary Medicine consists of the following placements:

70 hours within at least two weeks on a state teaching farm for agriculture, animal breeding and animal husbandry;
or
140 hours in at least four weeks on a private farm certified for vocational education in farming prior to the preliminary veterinary examination (“Physikum”);

150 hours within at least four weeks in a clinical veterinary practice or a veterinary hospital after the preliminary veterinary examination (“Physikum”);

75 hours within at least two weeks in hygiene control, as well as food control after the seventh semester;

100 hours within at least three weeks in the inspection of animals for slaughter and meat inspection after the eighth semester;

75 hours within at least two weeks in public veterinary service after the eighth semester;

700 hours within at least 16 weeks in a clinical veterinary practice or a veterinary hospital after the eighth semester.

Part of this EPT can be completed in a total of 75 hours within two weeks minimum, and a maximum of 350 hours within eight weeks, as an Elective Placement (§ 60 TAppV).

H. Examination regulations (PO) of the study programme Veterinary Medicine at the University of Leipzig

University of Leipzig Faculty of Veterinary Medicine

Examination regulations of the study programme Veterinary Medicine at the University of Leipzig

22. September 2017

Preamble

The decision on the following examination regulations for the study programme Veterinary Medicine, made by the University of Leipzig, is in accordance with the German Ordinance concerning the Certification of Veterinary Surgeons (TAppV, esp. § 14 (2) and §10 (4)) of 27 July 2006 (The Federal Law Gazette Part I p. 1827), last amended by the first ordinary for the amendment of the German Ordinance concerning the Certification of Veterinary Surgeons from 20 December 2016 (BGBI I p. 3341) and the Saxon University Freedom Law, (SächsHSFG, esp. § 34 (1) sentence 1) as amended of 15 January 2013 (SächsGVBl. p. 3), last amended by the law of associated provision for the two-year budget (budgetary law 2015/2016 — HBG 2015/2016) of 9 May 2015 (SächsGVBl. p. 349).

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Annexes

§1 Scope of application and provision

These examination regulations apply to examinations of the study programme Veterinary Medicine at the University of Leipzig. According to § 10 (4) TAppV, these examination regulations determine the

form of examination for the respective subject, as well as necessary derivations of §§ 9, 11, 12 and 14 TAppV.

§2 Task of the Examination Committee's Chairperson

The Examination Committee for Preliminary Veterinary Examinations and for the Veterinary Examination after § 5 TAppV assure that the rules and regulations of TAppV and of these examination regulations are complied with. They guarantee that students who meet all requirements for examination admissions can take first examinations in the respective subjects at the times stated in annex 1. The Chairperson of the Examination Committee is supported by the Office for Examination Affairs of the Faculty of Veterinary Medicine at the University of Leipzig.

§3 Form of examinations

(1) The form is determined in annex 1. Examinations can be taken in oral, practical, written and electronic form, which can be multiple choice examinations or a combination thereof.

(2) When taking electronic examinations, examinees answer questions via the input device on a software platform. Due to sufficiently secured saving of the examinees' answers, the complete electronic communication between input device and server can be tracked.

(3) The software platform guarantees the authenticity and integrity of the examination results. This mechanism specifically ensures that the examinee's answers can be allocated to their origin and at no time be falsified.

(4) When taking electronic examinations, students are given the opportunity to acquaint themselves with the system sufficiently.

(5) When starting the electronic examination, every examinee authenticates with an assigned personal login through the input device on the software platform. This way, the examinee is matched precisely to one input device and the respective entries can be allocated directly to them. After all examinees are signed in accordingly, the supervisor in charge starts the examination for all participants at the same time. The examination is completed after the set time at the latest, or earlier, whenever the examinee confirms this on the software platform.

(6) The catalogue of questions ensures that there are enough equivalent questions, according to level of difficulty, topic or the allowed operating time; this guarantees fair conditions and prevents unequal treatment when different questions are assigned to the examinee.

(7) Manual control of the electronic examination is required in the case of questions requiring manual text input in order to avoid false answers derived from obvious typing errors to lead to false judgment of answers as being incorrectly answered.

(8) In case of technical malfunction, there are respective safety measurements in place to make sure no input can get lost. The associated loss in time is compensated with a respective extension of the examination period.

(9) § 5 (3) regulates the evaluation of electronic examinations.

(10) Chairpersons of the Examination Committee, examiners and the responsible staff in the Study Office receive access to the electronically saved examination data. The data is to be preserved and kept legible for 5 years.

(11) The work of an examiner consists of, among others, choosing the topic of the examination, posing questions and setting correct and incorrect answers. The maximum score that can be achieved is to be stated on the answer sheet. The examiner is responsible for the correct completion of the examination as well as evaluating it.

(12) The allowed time to take written and electronic examinations is no less than 20 minutes. The total duration of an oral or partial examination is generally, and per examinee up to 90 minutes. The duration of practical forms of examinations depends on the determined examination situation and the actual conditions (practical examinations on animal patients)

(13) According to § 10 TAppV, oral and electronic examinations in subjects marked in annex 1 can serve as evidence for the students to understand and be able to utilise the acquired basic knowledge ("practical" part of the examinations). Further, performances in part examinations can contribute to the examination mark of initial examinations.

(14) Under the terms of § 34 (3) of the SächsHSFG, taking parental and maternity leave is to be considered during examination procedures. Form and degree of the disability of an examinee are to be verified by a medical certificate. In cases of doubt, the chairperson can request a certificate from a medical officer. Once the examinee substantiates that they cannot take the full or part of the examination due to their physical handicap or chronic condition, the Examination Committee compensates this with the respective means, e.g. an extension of the examination period or changes of the examination procedures.

§4 Time of taking the examination

(1) Annex 1 states the time of taking the examination and the requisite evidence that is required for the admission to take the examination.

(2) Temporary examination periods of an examination stage are usually announced in the beginning of the semester, however, 28 days before the semester break the latest. The registration period for individual examinations or part examinations are stated in annex 1. The period allotted for the decision of admission to examinations of one stage ends 7 days before the examination stage starts. The announcement of individual examination dates takes place in form of a summons, 7 days prior to the examination the latest.

(3) Within the first month of studying, the university offers students to prove with an oral examination that they have sufficient knowledge of the subjects from § 20 (1) no. 1 letters a-d TAppV.

(4) The admission to the Veterinary Examination is gained with proof of the passed Preliminary Veterinary Examination. Only students who have passed all subjects of the Physics (§ 22 TAppV) can take part examinations of the fifth semester. Part examinations of the sixth semester can only be taken by students who have regularly participated in part examinations of the fifth semester, as well as passed examinations in the subjects Clinical Propadeutics and Radiology. Part examinations of the seventh or eighth semester can only be taken by students who can provide the evidence that is required after the sixth or seventh semester and stated in annex 1.

(5) In order to enter the clinical training in the ninth and tenth semester, students have to prove they have taken the examinations after § 29 no. 1 to 7, 9 and 12 TAppV, and passed in eight subjects.

(6) Proofs according to § 31 (1) no. 3 TAppV are only accepted when the respective training took place at the following times the earliest:

Training according to § 57 (1) TAppV (4-week Veterinary Placement); after the lecture period of the fifth semester has ended and the Preliminary Veterinary Examination is passed;

Training according to § 55 (1) TAppV (2-week Placement in food control): after the lecture period of the seventh semester has ended;

Training according to § 57 (2) (16-week Veterinary Placement) or after § 60 (Elective Placement), training according to § 55 (2) TAppV (3-week Placement examining animals for slaughter and meat) and

training after § 61 TAppV (2-week Placement in public veterinary service): after the lecture period of the eighth semester has ended, as well as on the understanding of (5).

(7) Every examination, including all resit examinations have to be taken within one year after the eighth and tenth semester respectively; this only applies to students who have been approved to the respective stages of the Preliminary Veterinary Examination and in the respective subjects of the Veterinary Examination according to annex 1. Should students fail to adhere to this time limit, the examination stage is considered failed, subject to the provisions of § 12 (2) sentence 1 TAppV.

§5 Evaluation of examination results

(1) The content of examinations is regulated in the TAppV.

(2) The evaluation takes place according to § 14 (1) TAppV. The examination is considered passed once the examinee obtains at least “adequate” as a grade. If the examinee fails, they can take resit examinations according to the examination form in annex 1. Counting part examinations to the final mark of the first examination in the subjects of the Veterinary Examination takes place according to annex 2.

(3) Performances in written examinations are evaluated as follows:

“very good" (1),	if 100-89%,
"good" (2),	if 88-77%,
"satisfactory" (3),	if 76-66%,
"adequate" (4),	if 65-55%,
"inadequate" (5),	if < 55 % of the maximum performance are achieved.

Multiple Choice examinations are considered passed, if the examinee has either reached at least 55 percent of the achievable credits or their score differs no less than 10 percent from the average score of all other examinees. If the examinee has reached the minimum score according to (1) and at least 75 percent, the grade is “very good” (1); once at least 50 but less than 75 percent is reached, the grade is “good” (2); “satisfactory” (3) once at least 25 but less than 50 percent is reached; and “adequate” (4) if none or less than 25 percent is reached. For resit examinations, the average score of the first possible examination applies.

(4) A review process by the VMF checks and assures the applicability and clarity of the questions, as well as marking of correct answers for written and electronic examinations. The reliability of examinations is checked once a year and according to the results.

(5) Written and electronic examinations can consist of single- and multi task exercises, short answer and paragraph answer tasks, as well as a combination of the aforementioned question types. The score, proportional to the total score in the posed questions leads to the percentage of evaluation. Decimals are cancelled. If certain questions cannot be considered throughout the course of evaluation, the mark is generated by the number of remaining questions.

(6) If stated in annex 2 that a particular part examination must be passed in order for the first examination attempt to be passed, the complete subject has to be resat if the part examination is failed. The form of the re-sit examination of the respective subject is stated in annex 1.

(7) The examination result in an oral or oral-practical examination/part examination is to be announced to the student after the respective oral or oral-practical examination/part examination. The result of written, electronic or written-practical examinations/part examinations is to be announced by the

examiners via the Study Office VMF through an anonymous display or electronically, but within 21 days after the examination/part examination.

(8) After finishing written or electronic examinations/part examinations, the examinee is granted access to records on written request. The request is to be made at the head of the responsible Examination Committee within one year after the examination results are announced. The head of the Examination Committee determines date and place of the file inspection.

§6 Absence

In case of illness, once the examinee receives the first or second summons to an examination or part examination in the same subject, they have to present a medical certificate according to the form (annex 3) within three workdays. As of the third summons in the same subject, the examinee has to present a certificate from a medical officer within three workdays.

Once the examinee cancels an examination, they immediately have to present a certificate from a medical officer of the city of Leipzig.

Otherwise, the regulations in § 12 (2) and (3) TAppV apply.

§7 Competent body

The competent body after § 66 TAppV responsible for crediting periods of study and examinations after § 65 TAppV consists of the Chairpersons of the State Examination Committee for the Preliminary Veterinary Examination or the Veterinary Examination of the VMF at the University of Leipzig. Detrimental decisions must be provided with legal information. The applicant can object against detrimental decisions within one month after access. The objection is to be entered in written form or for the record with the responsible Examination Committee. The head of the responsible Examination Committee or their representative makes the decision for the objection within three months.

§8 Commencement, transitional provision and publication

(1) These examination regulations come into effect on 1 October 2017 and apply to all students, with the exception of the regulations from (2). Students that enrol in a semester higher than the first one are only affected by this, once the examination regulations for the respective semester are already in place. Otherwise, the examination regulations for the study programme Veterinary Medicine at the University of Leipzig from 25 January 2010 (official notice of the University of Leipzig no. 3, p. 1-9) takes effect as amended by the second amendment record from 14 November 2014 (official notice of the University of Leipzig no. 54, p. 24-42).

(2) The §§ 3 and 5 of the examination regulations for the study programme Veterinary Medicine at the University of Leipzig from 25 January 2010 (official notice of the University of Leipzig no. 3, p. 1-9) as amended by the second amendment record from 14 November 2014 (official notice of the University of Leipzig no. 54, p. 24-42) pertain to students that have, at the time of the commencement of these regulations already entered an examination stage (Preliminary Veterinary Examination or Veterinary Examination) in the study programme Veterinary Medicine.

(3) These examination regulations were issued based on the decisions of the faculty council of the Veterinary Medicine faculty from 14 June 2017 and the approval of the University of Leipzig's rectorate from 13 July 2017. Further, they were confirmed by the Saxon State Ministry for Science and Arts, with the letter from 8 September 2017 (file number: 3-7238/2/7-2017). They are published in the official notice from the University of Leipzig.

Leipzig, 22 September 2017

Professor Dr. med. Beate A. Schücking, Rector of the University of Leipzig

Appendix to 1.1.2. Strategic plan of the VMF (Zukunftskonzept) and detailed SWOT-Analysis

Strategic plan of the VMF (Zukunftskonzept)

STRATEGIC CONCEPT FOR FUTURE DEVELOPMENTS 2023 OF THE FACULTY OF VETERINARY MEDICINE (VMF) AT THE UNIVERSITY OF LEIPZIG

Content

I. MISSION STATEMENT AND PROFILE

The Faculty of Veterinary Medicine (VMF) faces societal and university-related challenges and expectations (NRC 2001, 2005, 2005a, 2013, 2014, 2015). In doing so, it follows the worldwide respected one-health concept “One world, one health, one medicine” (www.onehealthinitiative.com; Vallat, World Organisation for Animal Health, www.Oie.int/en/; Kaplan et al. 2009; Annex I) representing the veterinary part in biosciences. This in turn leads to high requirements from the society and the University; maintaining and growing performance and the secured use of available resources. In order to intensify the profiling process, the VMF will focus on biomedical research as an internal connection on the one hand, namely between teaching and paraclinical or clinical services, and as an external connection on the other, between the research focus areas of the university (pbf) and larger research associations (e.g. nutriCARD). Thus, the VMF strives for achieving a profiling process with a focus on research priorities, high-quality interdisciplinary and accredited study opportunities, as well as high-quality teaching- and research related services and excellence in patient care. The profiling process is based on the following Mission Statement:

Leipzig’s veterinary medicine for society:

- to teach sustainably,
- to create knowledge with enthusiasm,
- to practice veterinary medicine competently.

The profile defines the responsibilities of the VMF concerning the society and consequently addresses modern lifestyle diseases (diseases of civilisation) in farm animals and in companion and small animals, with an emphasis on the prevention of such diseases. Thus, the profile and Mission statement address the exceptional requirements concerning veterinary science (NRC 2005). The profiling is a process of convergence from the areas of research and teaching. Its interdisciplinary focus shall be intensified and valued on all levels. One important aspect of the profiling process is the further development of the different centres, aiming at increasing the responsibilities of the individual centres regarding the distribution of resources (staff and budgeting).

Profile development at VMF:

- Continued focused development of our profile in all units
- Interdisciplinarity as a measure of performance in teaching and research
- Research foci: joint projects and networking across the university
- Strengthening of centres (limited responsibility for resources)

II. OUR DUTY (§ 101 (1) SÄCHSHSFG UND TAPPV):

The VMF has the state duty (see Saxon University Freedom Law § 101 (1) SächsHSFG, German Ordinance concerning the Certification of Veterinary Surgeons, TappV) to train competent future veterinarians. They take on important responsibilities towards society to maintain and improve the **general health through biomedical research, the welfare of farm animals as well as companion animals and to guarantee a high quality of food from animal origin**. The VMF is currently a teaching-and service-oriented college the efforts of which comply with its state duty and are comprised of active, partly competitive and altogether diverse research with intense national and international collaboration. The VMF has started an active profiling process that has led to a dynamic development and is expected to arrive at the focussing of research activities that are both nationally and internationally competitive and will be the basis for connections with larger associations. The VMF faces the expectations and challenges posed by the University and society, while shaping its future actively, dynamically and closely interconnected with the University. The VMF will focus on the following areas in this process:

- Focussing research activities on the university's research focus areas
- Internationalisation of teaching and research activities
- Offering a high-quality curriculum (that is continuously being re-evaluated and improved)

High-quality teaching- and research related services and excellent patient care

- Management and further development of high-quality continuing education opportunities
  The associated and necessary profiling process will be enhanced with the following tools:
- Appointment of professorship positions considering the VMF's research foci in order to further develop the research profile and to strengthen the university's research focus areas
- Optimization of the use of resources
- Further development of the VMF's centres by increasing the autonomy regarding the centres' resources
- Establishment of additional Core Units and a central diagnostic laboratory

The VMF of the University of Leipzig has been restructured into five different centres in 2008. A detailed organizational chart showing the structure and central institutions (except for the administration and the Office of Study Affairs) is included in Annex II, Overview II.1.

The global structure and assignment of tasks are drafted in figure 1. The core responsibility represents the central role of research and officially defined tasks in teaching, **patient care** and consumer protection (Fig. 1). These central tasks shape the development of the Faculty.

The subject-specific main spectrum is defined by regulations (SächsHDFG, TappV); Professorships for veterinary core subjects are not sufficiently filled at the local Faculty (see annex II, overview II. 1, table). Assigning staff is solely based on the core segment's scope; with emphasis on the connection between the scientific staff and the number of students according to capacity regulations. The VMF faces all tasks and objectives that are outside the core areas without accompanying extensions of resources or funding options.

Personnel resources of centres are distributed according to their tasks (see circle segments fig. 1). Currently, five research foci have developed at the VMF:

- MOVE (Model systems, orthopaedic research, veterinary science, education for postgraduates)
- DIGIT (Diseases and integrity of the gastrointestinal tract),
- TFN (Translational research on neurogenesis, -degeneration and -inflammation)
- iLAF (integrated lung- and respiratory research)
- ZIVET (Z=diseases of civilisation, I= infection prevention V=consumer protection, E=diet/epidemiology T = animal welfare).

All five foci are characterised by competitive research undertakings and respective external funding. Further development, focussing/reduction and connecting the foci to the university pbfs require strategic filling of positions that are strong in research areas, as well as intensifying the triple combination animal health-foods-consumer protection. The latter results from the fact that this combination (e.g. **diseases of civilisation of domesticated animals**, quality of animal source foods, infection risks originated from animals) is the driving force for faculty and university research foci. The professorships listed in the second box (fig. 1) are essential for this task.
Research is in constant exchange with the paraclinical and clinical services (PKD), as well as a qualified offer for continuing education including promoting junior scientists; the latter consists of the postgraduate training (promotion, habilitation, specialised veterinarian and internationally recognised equivalents (e.g. “European Diplomate Internal Medicine“). Along with the professional value, the 2. “task box” comprises essential economic value for the Faculty, without which the core area and thus the fundamental training cannot be financed. Unified Research performance unified in research foci is primarily seen as requirement for PKD, promotions of young scientists and finally the quality of continuing education, which is mainly supported by the Veterinary Congress of Leipzig. This hierarchy in professional work (core tasks – research – paraclinical, clinical service – continuing education, promotions) is the basis for developing a PhD programme, extending the promotion of junior scientists, by introducing upscale core staff in the field of laboratory animals and maintaining animal models for faculty and university associations in Leipzig, among others.

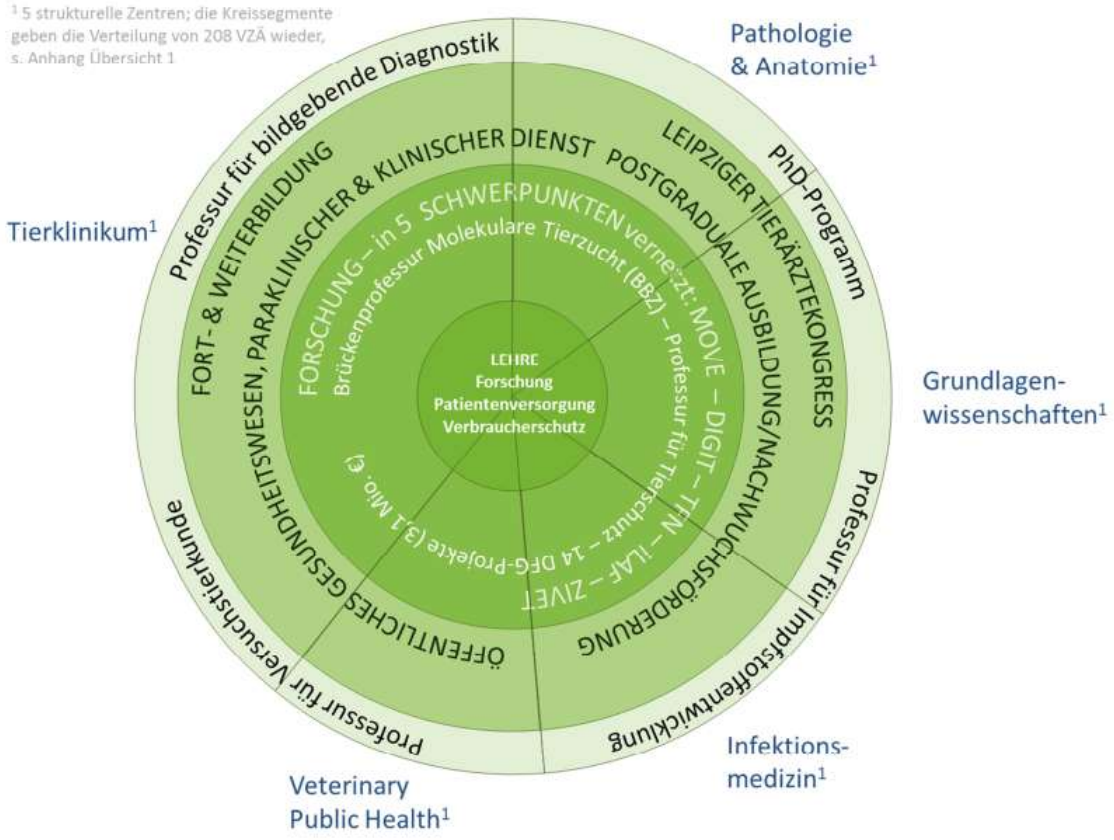


Fig 1. Current and future tasks for the veterinary medical faculty with its five centres (the distribution of personnel resources in full time equivalents (FTE) is reflected in the size of the segments). At the core (inner, dark green segment) are the central, in part mandated, task areas that have to be covered through 'import' of teaching (see Ch. III). **Essential professorships (lighter green second segment) such as 'molecular genetics' and 'animal welfare and ethology' are not currently available or not approved for appointment (see Table 2), but are considered crucial for joint projects within the university.** The outermost segment shows professorships that are required for complete coverage of the professional spectrum and a planned PhD programme; however, funding for these is incomplete.

III. STUDIES AND CONTINUING EDUCATION

The VMF is liable to the legal regulations of the SächsHSFG and the TAppV regarding research and its core tasks; teaching, patient care and clinical services. The Veterinary Medicine programme is regulated by national regulation (TappV from 27 July 2006) concerning its content and main procedures. It consists of a total of 5.020 hours, of which 3.850 hours have to be spent at the University in ten semesters. The hours left are used for placements. The objective of the programme is the state examination as prerequisite for the approbation of veterinarians, who are trained in all fields. In Leipzig there are over seven applicants per spot. The VMF was successfully evaluated in 2008 by the *European Association of Establishments for Veterinary Education* (EAEVE), the next rotational evaluation is in two years.

According to TappV, practical training must take place in placement groups (in accordance with EAEVE standards). **Training close to animals guarantees practical competences**, also by training with farm animals on the teaching and research farm Oberholz in paraclinical and clinical subjects (**EAEVE-Katalog** „first-day-competences; see Annex III).

The average number of students, 140 per study year is correlated to 104 (FTE) for scientific occupations, according to the implementation of the capacity regulation and pursuant to the regulation of official duties for universities (DAVOHS); resulting in a lack of scientific professorships in the university budget for facing additional challenges (see fig.1), such as those resulting from the official duty according to

SächsHFG §101 (1). Thus, the VMF depends on its own intake/revenue to manage the aforementioned and other tasks.

To assure teaching with the given resources, veterinary core subjects are taught by professors (see Annex II, table in overview II.1); further, certain subjects are part of the full professors' tasks. This secondary representation (see Annex II, table in overview II.1 column “secondary representation”) comprises 484 hours of a total of 3680 hours basic teaching, which are carried out by the Faculty.

Imports in teaching amount to 240 hours. Unfortunately, there is no professorial representation of the subjects “Animal Welfare and Ethology” and “Animal breeding and Genetics” that are defined by the TappV (see VI, page 10). Both fields include central requirements concerning veterinary medicine with a view to having an impact on society (e.g. animal welfare) and further developing science (e.g. genetic bases for diseases). Both subjects are also the main focus of important funding institutions (DFG, federal- and state institutions). The named gaps were already discussed in the last evaluation in 2008 by the EAEVE. In regards to subjects that are under professorial responsibility, it becomes clear that the shift of scientific staff in favour of the aforementioned subjects is not possible.

The gap between the way specialised fields are represented in terms of structure and content, compared to other veterinary training institutes in Germany is striking (see Annex II, overviews II.2 – II.8). Restructuring measures will not be sufficient to modify these gaps.

The quantitatively illustrated studies mentioned above are realised in the Leipzig curriculum since the TappV became official; the goal is to create a stronger network of teaching content across subjects. Discipline-oriented classes (lectures) are abandoned and one significant part of the programme (>40%, excluding placements, seminars and exercises) is taught according to the subject in Focus classes, interdisciplinarily and with various disciplines included. The Leipzig curriculum comprises more than 28 of these Focus classes which consist of around 20 to 140 hours (see Annex IV). Research being implemented in the teaching especially accounts for student project work and compulsory elective subjects.

The VMF follows a structured development of all programme offers and at the same time the necessary paradigm shift (Lernen Lehren; Barr & Tagg, 1995). Electronic classes shall increase the amount of independent studying, mainly supported by study environments protected from simulators. The VMF as veterinary training institution was the only institution in Germany that was able to not only found a **“Clinical Skills Lab”** without using budgetary positions, but to conceptionally and practically extend it to a practical teaching and learning centre PAUL. Continuously developing PAUL is an important strategic goal of the curriculum development and will be further implemented in the VMF's development plan regarding construction.

After successful renovation, preconditions for teaching close to animals and on the teaching and research site Oberholz (LVG) was improved. Therefore, apart from propadeutics of farm animals another part of the paraclinical **and clinical teaching is being implemented at the LVG**. Here, students taking care of farm animals are offered deeper insights into the respective subjects (teaching related to the animal population: cattle, small ruminants, swine; Focus prophylaxis, animal welfare and food safety). The respective hours are filled or adapted including the teaching and research site Köllitsch of the SMUL. Finally, these measures serve as the basis for striving for accreditation in 2018/19 by the EAEVE.

As requested by the Federal Chamber of Veterinarians (regulations for continuing education) and internationally by European Colleges, the Faculty offers a great variety of funding for junior veterinarians. Continuing education courses for veterinarians or diplomates of various European Colleges intensify further education for postgraduates; as they are qualification offers, they offer location advantages for the Faculty (for veterinary further education offers and courses for European Diplomates see Annex V).

Teaching

- Continued development of course offers and paradigm shift with focus on
  - Expansion of the 'Clinical skills lab'/PAUL
  - Strengthening of **patient-side teaching** at the teaching and research farm Oberholz
  - Elective option for paraclinical and **clinical** training focused on food animals
- Accreditation EAEVE 2018
- Creation of an institute for 'animal welfare and ethology' according to TAppV
- Appointment of a professor for 'molecular genetics' in order to secure the area of 'animal breeding and genetics' according to TAppV
- Cooperation with the teaching and research farm Köllitsch of the SMUL

IV. RESEARCH AND PROMOTION OF YOUNG SCIENTISTS

As shown in Figure 2, the VMF has quadruplicated the raised third-party funds in the past ten years. Currently, there are 14 DFG-projects running (three of which are from first-time applicants.), that comprise € 3,1 million (standard procedure). The dynamic development of raising third-party funds are further driven by the profiling process, creating research foci and strategic new appointments. The total sum of available means amounts to around €9 million.

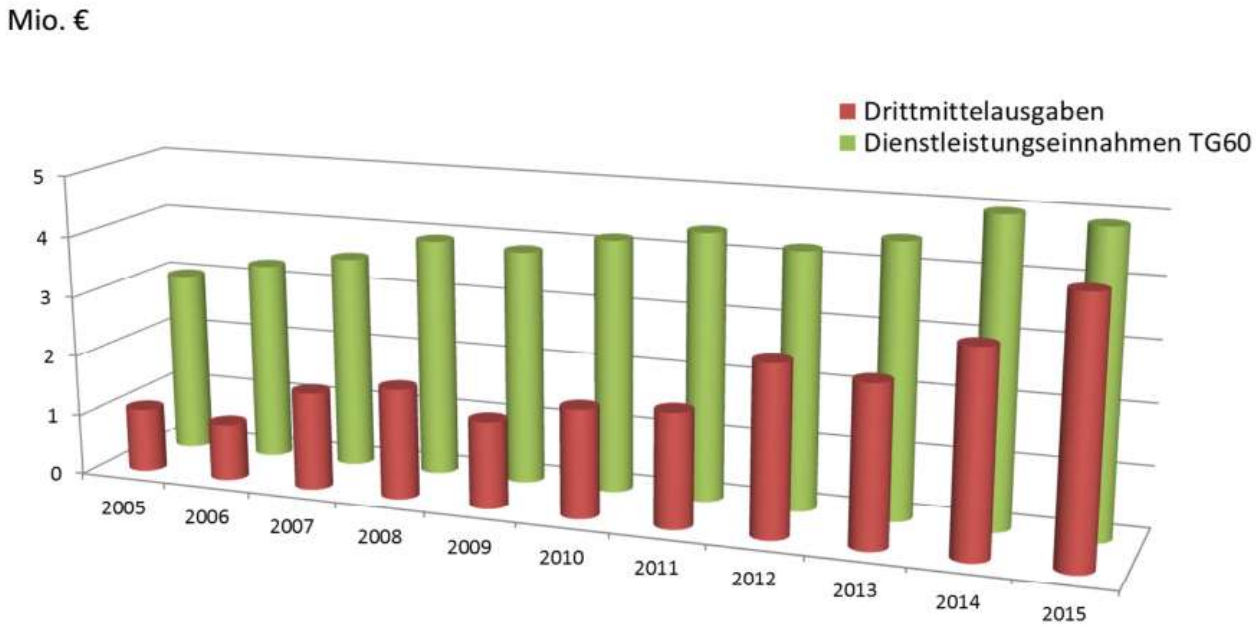


Fig. 2: Development of financial resources "Third-party funds" and revenue from patient care and paraclinical services

The VMF's engagement in research is represented both conceptionally and strategically in the following aspects, apart from DFG-funded projects and numerous promotions and habilitations:

- Research associations with federal funds
  - BMBF research association nutriCARD for universities (diseases of civilisation) (Prof. Braun),
  - Animal welfare projects (Proff. Einspanier and Krautwald-Junghanns, Lücker, Mülling)
  - Antibiotics-research association RESET (Prof. Honscha)
- Infrastructural, personnel and conceptional shares
  - BBZ (Proff. Alber, Baums, Einspanier, Honscha)
    - SIKT (Prof. Brehm)
    - Research cooperation with MPI (PD Dr. Vervuert, Dr. F. Richter)
    - Establishing Core Units (CUDZ, Fluokinanlage) for research
    - Lates Imaging (3-Tesla-MRI, CTs, scintigraphy, ultrasound)
      - Establishing the "BioImaging Core Facility (BCF)" for universities. This unit, advanced from the former VMF Core Unit CUL, is located on the biosciences campus and at the SIKT. The BCF shall contribute to the university offer for continuing education and thus expand the offer of the RAL.
      - Extension of clinically applied research: Albecht-Daniel-Thaer-Institut and KoVet
      - Creation and conception of options for animal studies: (for users outside the Faculty as well)
  - New stable (Multifunktionsstall) for experiments with farm animals, LVG Oberholz
  - Centre of laboratory animals (medium sized animals)
  - Drafting a university concept for laboratory animals

With establishing the faculty research foci stated in II., the VMF now pursues the objectives:

- Easing and supporting interdisciplinary research initiatives
- Combining resources relevant for research (competence, personnel, instruments)
- Developing interdisciplinary associations (further goal: researching groups, graduate college)
- Increasing overlaps with research networks outside of the Faculty

Since 2014, the VMF has been arranging a Research Day twice a year, following the aforementioned prioritisation of foci.
The current five research foci with their key words 'regenerative medicine (MOVE)', 'gastrointestinal barriers (DIGT)', 'neurogenesis (TFN)', 'respiratory diseases (ILAF)' and 'diseases – animal welfare – consumer protection' have a clear and substantial profile and notable connections to university pbfs "diseases of civilisation" and "human and brain";. The centres' participation in research foci and their connection to the university's areas of research are presented in figure 3.

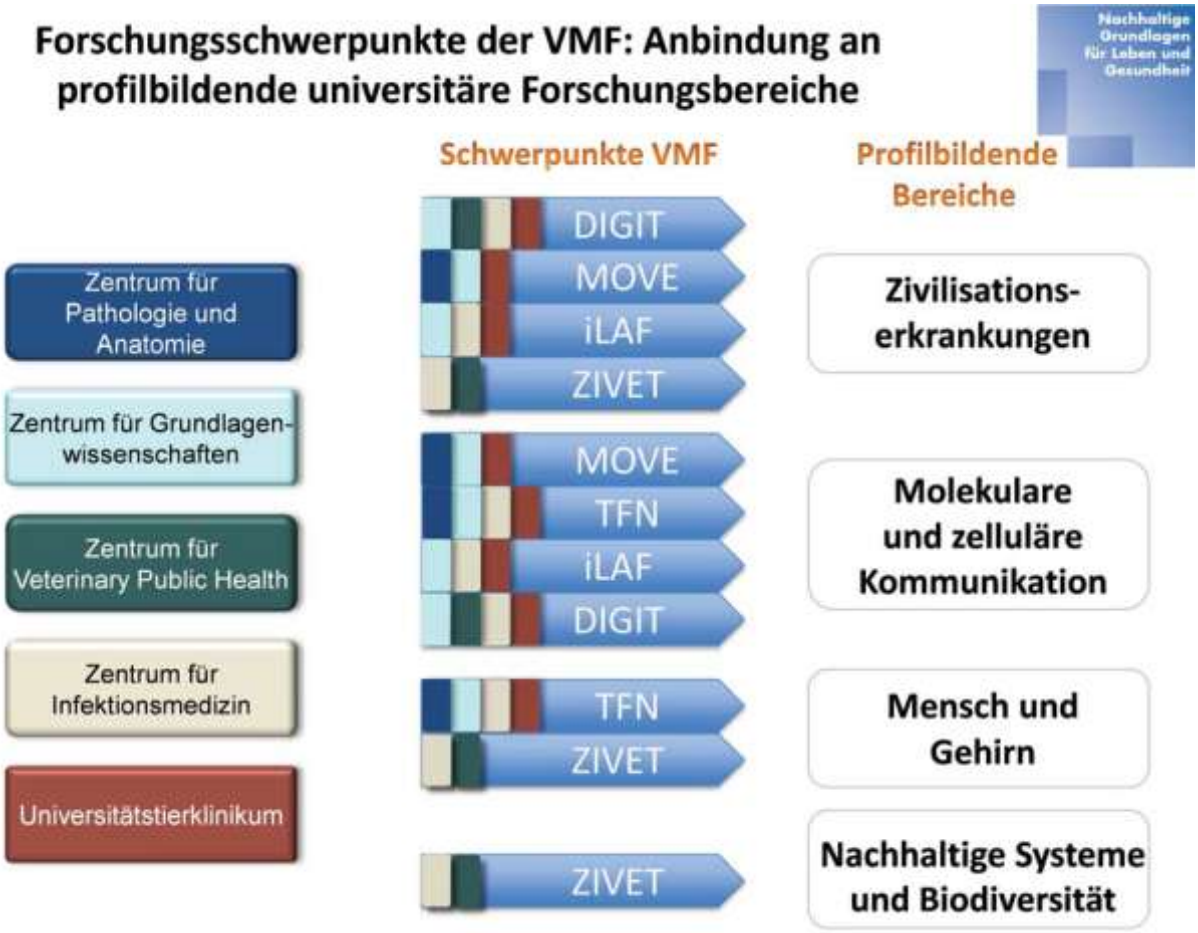


Fig. 3: Strategic planning for the promotion of research at the VMF. After successfully establishing a total of five research foci, it is now intended to emphasize and advance two to three foci that complement and enhance university pbfs.

In order to give more weight to the faculty's and the university's research foci (pbf) (fig. 4), it is essential to fill new professorships strategically.

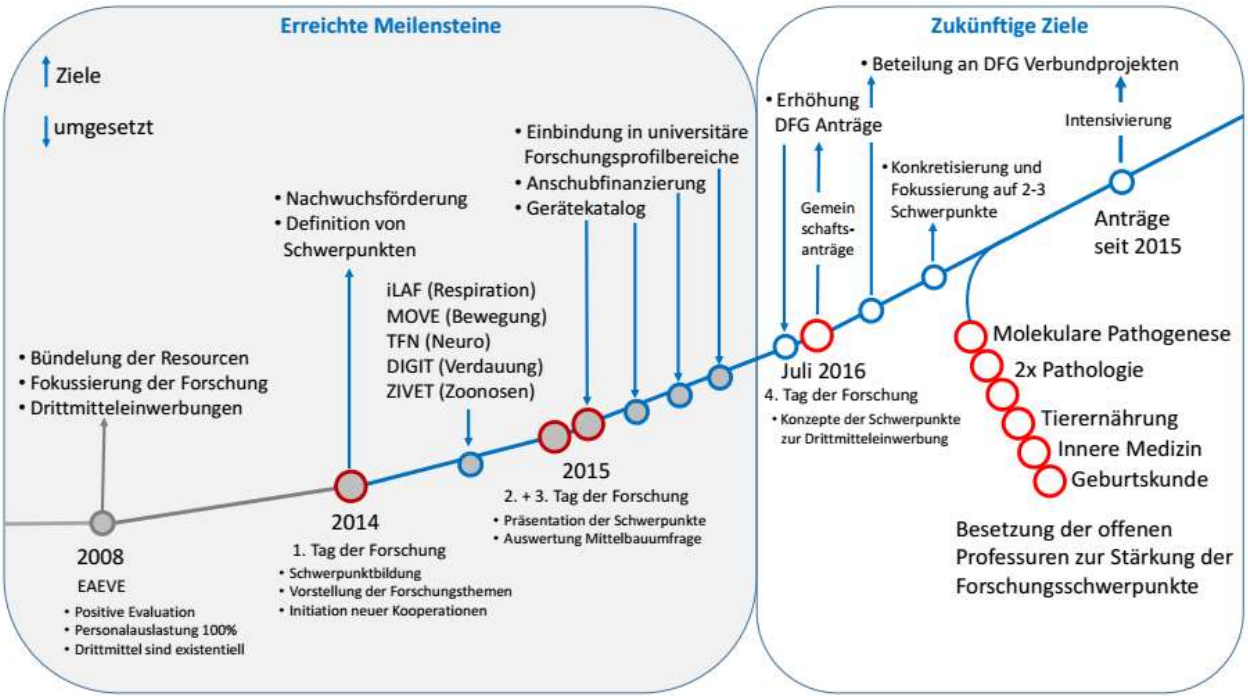


Fig. 4: Strategic plan for promoting research at the VMF.

We view the extensive expertise of VMF members in animal model systems, including primates, as relevant for research cooperation in university joint projects, specifically within the BBZ as well as in cooperation with the Medical Faculty incl. The cardiac centre, SIKT and FH-IZI.

For this very reason, the VMF views the joint professorship with the BBZ as essential for interdisciplinary research initiatives and joint projects at the University of Leipzig. According to TappV (section 28), 'animal breeding and genetics' is an examination subject with 84 teaching hours. A professorial mandate at the VMF is urgently needed in order to both honour the federal state's mandate, and to expand research competence in the field of molecular pathology and genetics, including epigenetics.

Due to scarce resources, further measures for developing and establishing a PhD degree programme are currently not realistic. Structured training for doctoral students shall be realised by creating joint projects through cooperation among faculties. A first step in this regard was made through the national joint project RESET as well as through nutriCARD. NutriCARD is currently working to establish a programme for structured training for doctoral students with integration into the RAL.

Research and support for junior scientists

- Emphasis on research foci, focus on research themes
- Integration into the university's pbf
- Competitive participation of research foci concerning the direction of professorial appointments
- Participation of key disciplines in the FSP (molecular pathogenesis, genetics, epigenetics, animal welfare/ethology)
- Further development of core units at the faculty and beyond
- Initial large projects (e.g. RESET, nutriCARD, sexing of chicken eggs), in part with structured training of doctoral students

V. STUDY- AND RESEARCH-RELATED SERVICES, PATIENT CARE (PARACLINICAL & CLINICAL SERVICES)

According to §101 SächsHSFG, the VMF covers a **broad spectrum of modern patient care** (including herd medicine), diagnostics, consumer protection and animal welfare (table 1) and makes it available for teaching and research.

Table 1: Case numbers for **animal patients** and herd visits in the context of teaching (students involved in case work) at the/by the VMF

Species/classification	Number/year according to notification to EAEVE*
Small animals	10437
Rodents, birds, exotics, reptiles	2554
Cattle, swine**	849
Horses	2052
Cattle herds, swine herds, livestock herds	114
Poultry and, rabbit farming operations	47

* Average over the course of 3 years; EAEVE 2016; ** mostly via faculty-owned transport

Diagnostic laboratory services comprise around 20,000 samples per year with 80,000 measured parameters. Based on a three-year average, 2,033 necropsies of food-producing animals, small animals and pets are carried out, including histopathological and other examinations (toxicology). Inspections of food and animal feed as well as consultations about husbandry and feeding management complete the service profile. These services are also an essential **foundation for teaching and the clinical training** in accordance with the TappV, and for research at the VMF. To promote these tasks in the future, the following elements are central parts of the VMF's strategic concept:

- partly or fully available
  - Medical resources and options
- Latest imaging technology (Department for Small Animals, Large Animal Clinic for Surgery, from 2017 Department for Horses) for campus-wide, interdisciplinary diagnostic and research use , as well as for joint use with the Medical Faculty.
- Modern gait analysis lab for fluorescence kinematography in small and large animals – one of three systems worldwide.
  - Accreditation of food inspections
  - International reference- and national consultant laboratories for:
    - Bovine Leucosis (World organisation for Animal Health, OIE)
    - Cryptosporidiosis (German Veterinary Medical Association, DVG)

    - Eimeria (DVG)
- VETIDATA (Veterinary information service for medication use, toxicology and pharmaceutical law)
    - Establishment of a Core flow cytometry Unit (CUDZ) for all institutes and of the BioImaging Core Facility (BCF) for all faculties as a service institution for internal and external research groups.
    - KoVet (coordination centre for clinical veterinary studies)
- Realisation upcoming
    - Structural measures, resource concepts
        - Establishing species-based clinics
        - Realising a concept for animal attendants
        - Establishing a central clinical laboratory

Transfer of clinics structured by disciplines into species-based clinics adheres to international standards, and also aims towards optimal utilization of infrastructural, personnel and financial resources. In the future (realisation was completed in 2017), the respective fields will be represented by the veterinary teaching hospital (VTH) with four departments:

- Department for Birds and Reptiles
- Department for Horses
- Department for Ruminants and Swine
- Department for Small Animals

The VTH of the VMF is a central part of veterinary training and research; in addition, they fulfil a role in the public health sector. The mentioned establishment of species-based clinics will strengthen the areas of training and research. Along with the anticipated reorganization of personnel in the large animal departments, adjustments to the distribution of personnel resources in the Department for Small Animals is inevitable in this regard. Sociocultural societal changes have been altering the significance of small animal medicine throughout the past decades, in that dogs and cats are increasingly seen as social companions rather than pets, which has and will continue to impact the job profile of veterinarians.
With its focus on herd medicine and health care for food producing animals, the newly established Department for Ruminants and Swine (as of SS 2017) will service the needs of agricultural and veterinary practice as much as address the value of animal welfare and food safety in the public's view, and for this reason will offer a great amount of interdisciplinarity.
The Department for Horses (as of SS2017) combines the formerly separate areas of Internal Medicine, Reproduction Medicine, Orthopaedics and Surgery for one animal species, which is increasingly burdened with diseases of civilisation and therefore increasingly requires veterinarians to possess theoretical knowledge on health maintenance of animals living under human "amateur" management. In this regard, horses are an important "model" for interspecies research in regenerative medicine and diseases of civilization. It should also be noted that horses are at the centre of a highly visible economic branch.
The Departments for Birds and Reptiles, and for Small Animals have been representing the species-based clinic structure for a longer period of time. The connection and cooperation between the Department for Birds and Reptiles and the poultry health service, and the decidedly clinical research focus on questions relevant to animal welfare guarantee intensive practical relevance that also takes into account the public interest.
The Department for Small Animals is a modern, well-structured and efficient clinic with a successful research program that is mostly clinically oriented. Successful clinical research depends on specialisation according to international standards, as well as sufficient patient throughput. In light of labour laws and restrictions, the clinic cannot continue to complete these tasks with the current staff pool. These circumstances account for a shifting of positions into the Department for Small Animals. A functioning Department for Small Animals is of vital meaning for the VMF, both professionally and economically.
The clinical laboratory is essential for the clinical service, regarding both teaching and research. The personnel for the planned **central laboratory** for clinical diagnostics will be fully provided by those institutions that currently provide laboratory diagnostics. In addition, project-related staff is financed with

third-party funds. The goal is the establishment of a central clinical laboratory, which is complemented by the scientific supervision by the Institute of Physiological Chemistry (biochemistry). This means that biochemistry steps away from its prior characterisation as a preclinical institution and takes on a decidedly clinical direction. This strategy contains the sustainable development of the current institute in favour of a centre of excellence for clinical laboratory medicine, in the fields of teaching, patient care and research. Aside from an expansion of available methods, the measure thus aims at intensifying research opportunities.
The concept for animal attendants includes the creation of a staff pool for the non-clinical and clinical facilities; it considers the various scopes of patient care and includes the option to establish a research facility for medium-sized animals (for details see Annex VII).

In order to optimally use equipment and personnel resources, and to promote interdisciplinary research concerning infectious diseases, the institutes contained within the Centre for Infectious Diseases (ZIM) shall be unified in a new building. The Institute of Bacteriology and Mycology, the Institute of Virology and the Institute of Immunology and Parasitology are currently distributed across campus. **The new building also creates better spatial conditions in the large animal departments and will complement their spatial structure**. Moreover, a centre for food technology shall make it possible to reproduce processes of food production for teaching and research (idea from nutriCARD).

- Research-related services & patient care
- Establishment of species-based departments/clinics
- Continuation of central equipment platforms
- Establishment of a central laboratory for clinical diagnostics and, in the medium term, infectious disease diagnostics including the establishment of bio banks as platforms for research projects

VI. Development of staff structure and organisation

As seen in figure 5, 15 professorships will have to be filled in the next ten years. Thus, the VMF faces a generational change within the administrative level of its facilities. This offers an outstanding opportunity to realise the aforementioned structural changes and measures with strategic appointments. In addition, it offer the opportunity for research foci to provide input into the definition of tasks and professional requirements for newly appointed professors (see table 2).

Furthermore, several research-oriented professorships can be filled (fig. 1) with the goal to promote established VMF research foci and to increase university pbfs. Over the medium to long term, VMF pursues the goal of incorporating its scientific expertise in joint projects at the University. In this context, the desired approval of a joint professorship “molecular animal breeding” is highlighted. The intended concept is considered highly valuable for the systematic development of various fields, and for the connection of research initiatives.

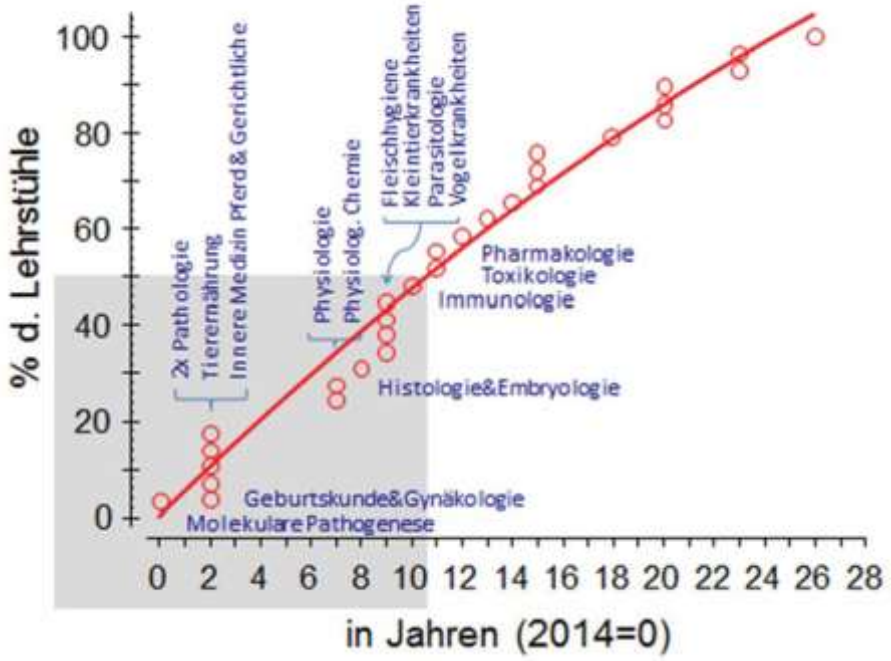


Figure: Professorships that have to be filled both currently and over the course of several years in % of the total and currently available “W-positions”

Table 2 summarises professorships that will be re-evaluated in the coming years. As they are positioned at the core of the faculty’s mandate (see fig. 1; see column “Aufgaben Lehre” in table 2), their availability is essential ; however, the definition of specific tasks and the emphasis of content in view of research foci can be modified (regardless of tasks in teaching and paraclinical or clinical services).
General requirements are to be prioritised

- Interdisciplinary orientation (interdisciplinarity as a measure of performance)
- Competence in promoting the development of centres
- Competence in further developing teaching
- Substantial contribution to at least one research focus of the Faculty and University

Additionally, an efficient and future-oriented VMF is crucially dependent on the following plans for structure and personnel (see fig. 1):

- Establishment of a new professorship “Animal Welfare & Ethology”

  Animal protection/welfare has developed into an highly visible topic in society and a central task for veterinary medicine. Accordingly, five out of seven German-speaking veterinary faculties have established or are in the process of establishing these professorships. The professorship shall be part of the Veterinary Public Health Centre. This matches the professional orientation of the centre, such that the professorship can be integrated into functional structures. In this manner, the aforementioned triad of “Animal health-foods-consumer protection” is represented. An essential aspect is the networking and cooperation with the University Animal Clinic.

- Creating a central clinical laboratory (see V.)

  Limited personnel resources in the field of laboratory diagnostics shall be combined and, in the long term, complemented by further diagnostic potential of various centres, e.g. microbiological and parasitological examinations (ZIM), hormonal assays (biochemistry), animal feed evaluation (animal

nutrition) and, possibly, other diagnostic services. This shall help to enhance and to methodologically expand routine services of the clinical laboratory, while aiming at developing a laboratory diagnostic centre of excellence for teaching and research (College of Clinical Pathology). The assignment of personnel in this area is dependent on this development.

- Increasing the responsibility of centres

  The Faculty has set a goal of creating a system that stipulates target agreements between the Faculty administration and centres, as well as limited autonomy in allocating personnel and budgetary means. This highlights the responsibility for creating a profile, while, on the other hand, allowing centres to specifically fund areas of work (e.g. contribution to FSP).

The above-mentioned emphasis on two professorships (animal husbandry & genetics, animal welfare & ethology) acknowledges students' criticism regarding the inadequate positioning of these specialised fields, and accounts for requests from the federal institute for risk assessment and the veterinary councils.

In light of existing and expected requirements, infrastructural and institutional restructuring is planned. The continuation and completion of the shift from discipline-based to species-specific clinics is essential: completion of the institutional process is anticipated for 2017 (see V.). However, reliable perspectives for building construction are important aspects that set the agenda.

Options for shaping the scientific administration of the LVG Oberholz shall be expanded to optimise research potential while enhancing the teaching aspect.

Development of personnel and the organisation

- Support for centres
- Targeted content specifications for new appointments with consideration of FSP input
- Professorship animal welfare and ethology
- Appointment ‘molecular animal breeding’, joint appointment BBZ
- Scientific orientation of the LVG Oberholz
- Development of a Centre of Excellence for clinical laboratory diagnostics and laboratory medicine

Tab 2: Zu besetzende Professuren – Ist-Zustand und zukünftige Konzeption (Aufgaben, Beitrag zu Strukturveränderungen und Stärkung fakultärer Forschungsschwerpunkte (FSP) und universitärer Profilbereiche)

▲= Nutzung einer z.Zt. nicht besetzten Stelle; ▲= absehbare Neuerungen in Denominationn und/oder Aufgabenstellung

2.1 Zentrum für Pathologie und Anatomie (W-Stellen: 3 W3, 1 W2, 1 W1; 1 W3 nicht besetzt, zur Neubesetzung anstehend*, 1 W2 Zuordnung beantragt)**

Ist-Zustand			Künftige Konditionen und Zielstellungen			
Professur	**Aufgaben Lehre TAppV**	**Aufgaben SächsHSFG §101**	**Professur**	**Aufgaben Lehre TAppV & SächsHSFG §101**	**a) ErwarteteLeistung/Expertise (LE) b) Stärkung von fakultärem FSP**	**Stärkung des universitären pbf**
W3-Pathologie >bisher nicht besetzt*	§ 44 Allgemeine Pathologie und Spezielle pathologische Anatomie und Histologie;	Pathologische, hiastopathologische Untersuchungen zur Diagnostik; Forensik	W3-Veterinär-pathologie* ▲	§ 44 Allgemeine Pathologie und Spezielle pathologische Anatomie und Histologie; Pathologische, histopatholog-ische Untersuch-ungen zur Diagnostik; Forensik	LE paraklinischer Dienst; breitgefächerte Diagnostik, prioritär klinische Ausrichtung FSP: TFN, Move	Zivilisationskrankheiten, Molekulare und zelluläre Kommunikation, Mensch und Gehirn
W2-Pathologie **	§44 Allgemeine Pathologie und Spezielle pathologische Anatomie und Histologie	Pathologische, histopathologische Untersuchungen zur Diagnostik; Forensik	W2 Veterinärpathol ogie und Histopathologie **	s. unter Ist-Zustand; interdisziplinäre Abstimmung erforderlich	LE: Konzeption d. Zentrumsentwicklung zur inhaltlichen Abstimmung d. W-Pathologie und W-Histologie, Embryologie; herausragende methodische Expertise, abgestimmte Arbeiten zur Physiologie & Pathologie zellulärer Funktionen; FSP: TFN, DIGIT oder ILAF *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle* ▲	Zivilisationskrankheiten, Molekulare und zelluläre Kommunikation
W3-Histologie & Embryologie	§25 Histologie und Embryologie	./.	W2 Histologie & Embryologie			Mensch und Gehirn

2.2 Zentrum für Veterinärmedizinische Grundlagenwissenschaften (W-Stellen: 4 W3, 3 W2, 0 W1; 1 W3 zu Neubesetzung anstehend*)

Ist-Zustand			Künftige Konditionen, Zielstellungen			
Professur	**Aufgaben Lehre TAppV**	**Aufgaben SächsHSFGS §101**	**Professur**	**Aufgaben Lehre TAppV Aufgaben SächsHSFGS §101**	**Erwartete Leistung/Expertise (LE) Stärkung von fakultärem FSP**	**Stärkung des universitären pbf**
W3-Tierernährung, Ernährungsschäden & Diätetik*	§ 34 Tierernährung und Futtermittelkunde; §x, Praktikum zur Landwirtschaftslehre	Futtermittelqualität, ernährungsbedingte Krankheiten, Forensik	W3 „Tierernährung, Ernährungsschäden & Diätetik"*	s. Ist-Zustand	LE: Nährstoffchemie u. –biochemie; Molekularbiologie i.d. Gastroenterologie und Nährstoffverwertung; Endokrinologie; Entwicklung des Zentrums und institutionellen Aufstellung in Abstimmung mit Vet-Physiologie & Ernährungsphysiologie; FSP: DIGIT, ILAF oder MOOVE ▲	Zivilisationskrankheiten
W3-Physiologie	§ 26 Physiologie		W3 „Physiologie der Tiere"	s. Ist-Zustand	LE: Transferleistungen zellulärer Funktionen; Entwicklung des Zentrums und der institutionellen Aufstellung in Abstimmung mit Tierernährung und Biochemie; FSP: TFN oder DIGT *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle* ▲	Zelluläre und molekulare Kommunikation, Mensch und Gehirn
W3-Biochemie	§ 27 Biochemie	Diagnostik	W3 „Biochemie & Labordiagnostik (Arbeitstitel; s. text)	§27 Biochemie Labor-diagnostik	LE: Molekularbiologie; klinische Chemie; Mitgestaltung des Zentrums in Abstimmung mit Tierernährung, Physiologie; Entwicklung d. Zentralen klinischen Labors; FSP: ZIVET oder iLaf *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle* ▲	Zivilisationskrankheiten

2.3 Zentrum für Infektionsmedizin (W-Stellen: 5 W3, 1 W3 Zustimmung zur Ausschreibung ausstehend*)

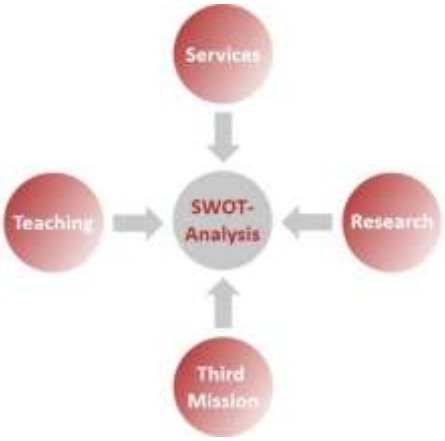
Ist-Zustand			Künftige Konditionen, Zielstellungen			
Professur	**Aufgaben Lehre TAppV**	**Aufgaben SächsHSFGS §101**	**Professur**	**Aufgaben Lehre TAppV Aufgaben SächsHSFGS §101**	**Erwartete Leistung/Expertise (LE) Stärkung von fakultärem FSP**	**Stärkung des universitären pbf**
W3 „Molekulare Pathogenese"* z.Zt. nicht besetzt	§28 Tierzucht und Genetik einschließlich Tierbeurteilung	Diagnostik genetischer Prädispositionen, zuchtanalysen; Forensik	W3 „Molekulare Tierzucht"*	§28 Tierzucht und Genetik einschließlich Tierbeurteilung s. Ist-Zustand; Diagnostik genetischer Prädispositionen, Zuchtanalysen;	LE: molekularbiologische Expertise, Genetik, Epigenetik; Interdisziplinäre Ausrichtung; Abstimmung mit W-Positionen „Pathologie"; Kooperation mit Bereichen am BBZ, SIKT; FSP: TFN, ZIVET, ILAF *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle*	Zivilisationskrankheiten, Mensch und Gehirn
W3 „Parasitologie" 2023	§ 38 Parasitologie	Diagnostik, Prävention; Zoonosenbekämpfung; Forensik	W3 „Parasitologie	s. Ist-Zustand	LE: Entwicklung des Zentrums; methodische Weiterentwicklung; FSP: ZIVET *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle*	Zivilisationskrankheiten

2.4 Zentrum für Veterinary Public Health (W-Stellen: 2 W3, 2 W2, 1W Ersuchen um Hilfe b. Zuführung*)

Ist-Zustand			Künftige Konditionen, Zielstellungen			
Professur	**Aufgaben Lehre TAppV**	**Aufgaben SächsHSFG §101**	**Professur**	**Aufgaben Lehre TAppV Aufgaben SächsHSFGS §101**	**Erwartete Leistung/Expertise (LE) Stärkung von fakultärem FSP**	**Stärkung des universitären pbf**
Wx, „Tierschutz und Ethologie"* z.Zt. nicht vorhanden, Zuführung mit Hilfe der Universität (Sonderprogramme, Stiftungs-professur)	§ 33 Tierschutz und Ethologie[1)]	Vertretung der Universität & Fakultät i.d. Öffentlichkeit; Tierschutz, Forensik[1)]	Wx „Tierschutz & Ethologie"	Vertretung der Universität & Fakultät i.d. Öffentlichkeit; Tierschutz, Forensik;	LE: Grundlagen d. Verhaltens; Umweltfaktoren & Gesundheit; Molekularbiologische Methoden i.d. Ethologie Klinische Ausrichtung mit Schwerpunkt beim Nutztier FSP: ZIVET *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle*	Zivilisationskrankheiten
W2- „Fleischhygiene" 2023	§ 46 Fleischhygiene	Amtliche Schlachttier- und Fleischuntersuchung	W2 xx Spezifikation in Anhängigkeit v.d. Entwicklung des Zentrums u. d. FSP ZIVET	s. Ist-Zustand	LE: Interdisziplinäre Ausrichtung; methodische Weiterentwicklung; FSP: ZIVET *Mitwirkung der FSP bei der spezifischen Ausrichtung d. Stelle*	Zivilisationskrankheiten

[1)]zur Zeit kommissarisch vertreten

Detailed SWOT-Analysis



Teaching

Strengths

- Good contact to students, coherent small campus, familiar atmosphere.
- PAUL, state of the art managed integrated skills lab.
- Solid modular core-curriculum and broad spectrum of electives (tracks).
- Active involvement of all undergraduates in research.
- E-Assessment using Umbrella Consortium for Assessment Networks (UCAN), a system which associates VMF with 66 other establishments for medical and veterinary education.
- Incorporated feedback system (systematically utilised for written examinations).
- Quality Management (Rules of Evaluation at the Faculty of Veterinary Medicine [VMF]).
- Systematic evaluation in collaboration with the UL.
- System-accredited UL.
- Strong VTH with 4 clinical departments grants for high patient load for teaching.
- Good connections of the Department for Ruminants and Swine with commercial farms allowing for small groups in clinical training.
- Close cooperation with the student body, students have an essential impact (students comprise 50% of the Committee of Study Affairs).
- Students are represented in every commission (including the professorship and other appointment committees).
- Vetilog (regular events on topics of the curriculum).
- Offers for the obligatory agricultural practical training (for 50% of the students) at LVG Oberholz.
- Interdisciplinary studies, integrating applied and clinical elements from the first day forward.
- Great body of student assistants, who are well integrated in the procedures of institutes and clinical departments.
- VetCenter (electronic library for veterinary books and magazines).
- Electronic Teaching and e-learning platform of UL (Moodle), many unique offers (e.g. VetAnaTube offers 120 teaching videos for anatomy).
- New examination regulations (PO).

Weaknesses

- Coordination of interdisciplinary teaching in thematic foci is a challenge.
- Office for study organisation is critically understaffed, causing shortages in individual services for students and creating challenges in coordination of quality management.

- Teaching is under-financed, causing constant challenges to provide the necessary materials.
- Lecture halls partly not usable.
- Lack of a coordinator for the mandatory extramural practical training (EPT).
- Recruitment of new professors often takes a long time, thus creating temporary shortages in teaching, research and services.

Opportunities

- PAUL will be further developed and integrated in teaching and examinations providing OSCE elements.
- The curriculum will be developed towards stronger individual orientation in the clinical rotations, where an individual student will spend more time in a department of choice.
- Further development of the interdisciplinary teaching approach, completion of modular teaching, optimisation of integrated teaching and assessment.
- VetFive: Exchange of examinations and questions for examinations using the electronic examination platforms (VMF uses UCAN).
- Cooperation with the Saxon State Teaching Farm in Köllitsch will enable the VMF to offer training in agriculture and applied training in a large scale farm setting.

Threats

- Modular curriculum (foci) is difficult to manage due to complexity and lack in personnel.
- Teaching staff tends to lose contact with students (due to modular organisation).
- Teaching competes with research and services. Therefore, teaching and examinations might not be considered the most important activity under these conditions.
- Also in the future, EPT will be difficult to evaluate in a rigorous way and thus, QA in this part is challenging.

Research

Strengths

- Research is organised in five networks (see appendix to 10.1.1.) within the VMF and the University, and with surrounding research institutions locally, nationally and internationally.
- Besides UL, a strong research network has developed in Leipzig with a variety of high class institutions like the Max-Planck-Institute, Helmholtz-Centre, and Fraunhofer Institute, which are partners for collaborative research.
- nutriCARD is a cluster of competences for nutrition and cardiovascular health, which is organised in a regional cooperation involving the universities of Leipzig (Federal State of Saxony), Jena (Federal State of Thuringia) and Halle-Wittenberg (Federal State of Saxony-Anhalt).
- Contributions to the current application of the University for a grant in the excellence programme of the German federal government (“Exzellenzinitiative”) could be made by the Institutes of Food Hygiene (nutriCARD) and Animal Nutrition (research on obesity).
- The Faculty Commission for research drives a structured process that helps to strengthen and focus the research profile, interdisciplinary research topics have been identified and are being developed to form research grant funded projects.
- The VMF, substantially supported by its alumni organisation (“Freundeskreis Tiermedizin”), grants several awards for study and teaching performance (Deutschlandstipendium, Exzellenzpreis für beste Studienleistung, Ackerknecht-Preis, Bergfest-Preis), student research (Posterpreis), postgraduate research (Ellenberger-Preis, Schleiter-Preis, Ungemach-Preis, Klös-Preis), and postdoctoral research.
- VMF grants postdoctoral researchers funds to support the start-up phase for further grant applications (“Anschubfinanzierung Forschungsnachwuchs”, since 2016).

- VMF has access to structured postgraduate doctoral studies at the Research Academy Leipzig (RAL).
- VMF organises an annual conference for young researchers (Doktorandenforum), which has gained nationwide acceptance.
- Core Units have been established at the University, and VMF contributes together with the Faculties of Medicine and those of natural sciences (e.g. BioImaging, Saxon Incubator for Clinical Research, Biomedical Centre Leipzig [BBZ]).
- Applied research is supported by the associated Albrecht-Daniel-Thaer-Institut (ADTI) and koVet®.
- Open Access publication is provided through the format “Leipziger Blaue Hefte” (LBH).
- Spin-off development of research is supported by SMILE®, the research contact office of the University (Forschungskontaktstelle), and the industry wing of the BBZ of UL.
- The University Library provides access to print media and online service.
- VMF research activities show a very positive development.

Weaknesses

- The basic financial resources and the allocation of staff and infrastructure are partly prohibitive for competitive grant application.
- Diversity of the institutes and clinical departments prevents thematic convergence.
- The number of strong and highly financed research projects is too low.
- Problems in the recruitment of highly qualified staff on all levels (e.g. tenure track system missing).
- Difficulties for young researchers in time-limited positions to develop long-term research strategies.
- Difficulties to support dual-career options together with recruitment.
- High overhead levels, particularly for industry financed research (until 2016: 20%, now: 40%).
- General lack of working time resources. Higher expectations for non-specific tasks are not answered by an increased personnel support.
- Teaching load limits time for research.
- Difficulties in the research grant administration by UL.
- Insufficient support for research activities by UL.
- Insufficient research information system at the university level.
- Insufficient systematic evaluation for research efforts.
- Insufficient UL granting system.
- Lack of a clinical trials office at the VMF.

Opportunities

- Development of research profiles leads to applications for Graduate Schools and/or Research Training Groups (German research funding agency [DFG]).
- Involvement in the application for a cluster of excellence “understanding adipositas”.
- Improved utilisation of infrastructure, more cooperation with local research partners.
- Improved networking with local research institutions.
- Improved strategic recruitment of professors.
- Involvement in the DFG (DFG-Fachkollegien).
- Leipzig is a model region for research cooperations across federal state borders (nutriCard, Institute of Food Hygiene).
- The University grants Pre-Doc-Awards, and a postdoc programme has been set up (RAL).
- A personnel development concept for scientific and non-scientific staff has been introduced.
- Improved support for grant applications has been introduced.
- A system for research information (FIS) and a system for grant allocation (DPVS, “Preis-Vergabe-Management”) is being introduced at the University.
- The RAL is ready to integrate VMF graduate schools.

Threats

- Necessity to finance research staff using income from services.
- Law on minimum salaries leads to enhanced need for financial resources.
- Further reduction of staff.
- Insufficient basic resources make it challenging to retain or to recruit professors and scientific staff, again limiting the opportunities for research grant applications.
- Research competes with teaching and services in light of tight staff resources. Therefore, research activities might suffer from high teaching load.

Services

Strengths

- VTH is offering 24/7 services.
- VTH holds very modern equipment (partly unique in diagnostic imaging).
- VTH has access to large scale herds of farm animals (cattle, pigs, poultry).
- The Department for Horses runs the State of Saxony School of Farriery.
- The Institute of Food Hygiene offers diagnostics in food products.
- The Institute of Animal Nutrition offers consulting in nutrition and feedstuff analysis.
- The Institute of Parasitology (two DVG consultant laboratories), Institute of Food Hygiene (one DVG consultant laboratory) and the Institue of Virology run certified laboratories.
- The Institute for Animal Hygiene and VPH and Institute for Parasitology provide standardised testing services for chemical disinfectants according to DVG guidelines.
- The Institute of Pharmacology runs VETIDATA, a service providing veterinarians with the latest information about veterinary pharmaceuticals.
- Diagnostics are offered by the Institutes of Veterinary Pathology, Veterinary Physiological Chemistry, Parasitology, Virology and Bacteriology as well as by all departments of the VTH.
- Clinical studies are provided on demand by the VMF, partly in cooperation with ADTI or koVet.

Weaknesses

- Shortages in staff, partly due to the law on minimum salaries.
- Shortages in technical staff for the support of patient care and research.
- Generall weaknesses in the structure of staff and building infrastructure.

Opportunities

- Improved performance following re-structuring the large animal departments of VTH to form a Department for Horses and a Department for Ruminants and Swine.
- Creation of a virtual centralised laboratory environment within the VMF using a common electronic platform (VETERA®).
- Intensification of the collaboration with the ADTI to support research activities.

Threats

- Further reduction of essential personnel.
- The law on minimum salaries and the law on working hours in the medical professions leads to enhanced need for financial resources to compensate for.

Third Mission; Transfer

Strengths

- Leipziger Tierärztekongress (LTK), the Leipzig Veterinary Congress, is biennially organised in cooperation with six Associations of Veterinarians and Leipziger Messe and has become the largest veterinary conference in Germany, attracting over 5000 delegates.
- Continuing education activities are organised together with the central office for continuing education of the University (Weiterbildungsreferat).
- VetDay, organised by veterinary students and addressing children, to give insight into the great variety of tasks of the veterinary profession.
- The long night of science is an evening open-house event of the city of Leipzig including the University, where several institutes and clinical departments contribute to inform the public.
- An open doors day (Tag der offenen Tür) has been organised to inform the public about the various aspects of VMF.
- Kindergarden and school classes are welcomed to visit VMF and the research farm.
- High school students are accepted for externships.
- Information on the activities of the VMF is spread through “Synapse”, the magazine of the VMF, and through the newsletter of the alumni organisation “Freundeskreis Tiermedizin” (www.frk-leipzig.de).

Weaknesses

- Shortages in staff, partly due to the law on minimum salaries.
- Shortages in technical staff for the support of patient care and research.
- Generally marginal structure in staff and building infrastructure.

Opportunities

- A central system for the management of continuing education activities is being developed.
- Cooperation will further improve transfer opportunities.
- Development of spin-offs can be stimulated and supported by the University (SMILE, university transfer management).
- Improving the visibility of VMF activities in third mission and transfer.
- Re-structuring the large animal departments will improve post graduate specialisation opportunities.
- nutriCARD (www.nutricard.de) will be developed towards the Central German Centre for Nutrition to improve cooperation with regional small businesses.
- VMF is involved in the international and interdisciplinary platform for the study of zoonoses (Zoonoseplattform, www.zoonosen.net).

Threats

- Further reduction of staff.
- Insufficient basic resources causing problems in competitiveness when trying to keep on or to recruit professors and scientific staff, while limiting the opportunities to realise transfer projects.
- No resources for public relations.

Appendix to 1.1.4. Personal responsibilities within the Faculty of Veterinary Medicine

Dean's Office (2016-2019)		
Function	**Name**	**Institute**
Dean	Prof. Dr. Walter Brehm	Department for Horses
Vice Dean	Prof. Dr. Dr. Thomas Vahlenkamp	Institute for Virology
Dean of Studies	Prof. Dr. Christoph Mülling	Institute of Anatomy, Histology and Embryology
Head of Administration	Dr. Kathy Busse	Dean's Office

Elected Members of the Faculty Council (2016-2019)		
Name	**Group**	**Institute**
Prof. Dr. Walter Brehm	Professor	Department for Horses
Prof. Dr. Almuth Einspanier	Professor	Institute of Physiological Chemistry
Prof. Dr. Maria-Elisabeth Krautwald-Junghanns	Professor	Department for Birds and Reptiles
Prof. Dr. Christoph Mülling	Professor	Institute of Anatomy, Histology and Embryology
Prof. Dr. Gerhard Oechtering	Professor	Department for Small Animals
Prof. Dr. Martin Pfeffer	Professor	Institute of Animal Hygiene and Veterinary Public Health
Prof. Dr. Johannes Seeger	Professor	Institute of Anatomy, Histology and Embryology
Prof. Dr. Alexander Starke	Professor	Department for Ruminants and Swine
Prof. Dr. Dr. Thomas Vahlenkamp	Professor	Institute of Virology
Prof. Dr. Getu Abraham	Equal opportunities officer	Institute of Pharmacology, Pharmacy and Toxicology
Dr. Dora Bernigau	Academic staff	Institute of Anatomy, Histology and Embryology
Dr. Martin Köthe	Academic staff	Institute of Food Hygiene
PD Dr. Doreen Scharner	Academic staff	Department for Horses
Ute Siegner	Non-academic staff	Department for Ruminants and Swine
Birte Emmelmann	Student	
Luise Hohensee	Student	
Matthias Kellner	Student	

Chairperson of the Commission		
Commission	**Name**	**Institute**
Promotion Commission	Prof. Dr. Rainer Cermak	Institute of Physiology
Research Commission	Prof. Dr. Gottfried Alber	Institute of Immunology
Hospital Commission	Prof. Dr. Gerhard Oechtering	Department for Small Animals
Commission for Budget and Development	Prof. Dr. Dr. Thomas Vahlenkamp	Institute of Virology
Committee of Study Affairs	Prof. Dr. Christoph Mülling	Institute of Anatomy, Histology and Embryology
Animal Welfare Commission	Dr. Gerd Möbius	Institute of Animal Hygiene and Veterinary Public Health

Liaison lecturers/ombudspersons		
Function	**Name**	**Institute**
Liaison lecturer	Prof. Dr. Johannes Seeger	Institute of Anatomy, Histology and Embryology
Liaison lecturer	Dr. Dora Bernigau	Institute of Anatomy, Histology and Embryology

Examination Committee for the Preliminary Veterinary Examination (Physikum)		
Function	**Name**	**Institute**
Chairperson	Prof. Dr. Rainer Cermak	Institute of Physiology
Vice Chairperson	Prof. Dr. Johannes Seeger	Institute of Anatomy, Histology and Embryology
Vice Chairperson	PD Dr. Uwe Müller	Institute of Immunology

Examination Committee for the Veterinary Examination (Staatsexamen)		
Function	**Name**	**Institute**
Chairperson	Prof. Dr. Christoph Baums	Institute of Bacteriology and Mycology
Vice Chairperson	Prof. Dr. Maria-Elisabeth Krautwald-Junghanns	Department for Birds and Reptiles
Vice Chairperson	Prof. Dr. Romy Heilmann	Department for Small Animals
Vice Chairperson	Prof. Dr. Walther Honscha	Institute of Pharmacology, Pharmacy and Toxicology
Vice Chairperson	Prof. Dr. Dr. Thomas Vahlenkamp	Institute of Virology

Spokespersons of the Centres		
Centre	**Name**	**Institute**
Fundamental veterinary sciences	Prof. Dr. Herbert Fuhrmann	Institute of Physiological Chemistry
Pathology and Anatomy	Prof. Dr. Johannes Seeger	Institute of Anatomy, Histology and Embryology
Infection Medicine	Prof. Dr. Arwid Daugschies	Institute of Parasitology
Veterinary Public Health	Prof. Dr. Uwe Truyen	Institute of Animal Hygiene and Veterinary Public Health
Veterinary teaching hospital	Prof. Dr. Gerhard Oechtering	Department for Small Animals

Representative of the Faculty of Veterinary Medicine		
Area	**Name**	**Institute**
Equal Opportunities Officer	Prof. Dr. Getu Abraham	Institute of Pharmacology, Pharmacy and Toxicology
Animal Welfare Officer	Dr. Gerd Möbius	Institute of Animal Hygiene and Veterinary Public Health
Head of commision LVG Oberholz	Prof. Dr. Johannes Kauffold	Department for Ruminants and Swine
Hygiene Officer	Prof. Dr. Uwe Truyen	Institute of Animal Hygiene and Veterinary Public Health
Library Officer	Prof. Dr. Walther Honscha	Institute of Pharmacology, Pharmacy and Toxicology
Notifiable Diseases Officer	Prof. Dr. Uwe Truyen	Institute of Animal Hygiene and Veterinary Public Health
Public Affairs Officer	PD Dr. Helga Pfannkuche	Institute of Physiology
Occupational Safety Officer	diverse	Responsibility of each institution
Fire Safety Officer	diverse	Responsibility of each institution
Institute Hygiene Officer	Diverse	Responsibility of each institution

Veterinary Congress Leipzig		
Function	**Name**	**Institute**
Congress President	Prof. Dr. Uwe Truyen	Institute of Animal Hygiene and Veterinary Public Health
Advisory Panel	Prof. Dr. Arwid Daugschies	Institut of Parasitology
Advisory Panel	Prof. Dr. Gotthold Gäbel	Institute of Physiology

Freundeskreis Tiermedizin e.V		
Function	**Name**	**Institute**
President	Prof. Dr. Ernst Lücker	Institute for Food Hygiene
Managing Director	Prof. Dr. Johannes Seeger	Institute of Anatomy, Histology and Embryology

Appendix to 3.1.2. Description of the legal constraints imposed on the curriculum by national/regional legislations and the degree of autonomy that the Establishment has to change the curriculum

Assembly of the German Establishments for Veterinary Education (Veterinärmedizinischer Fakultätentag; www.allgemeiner-fakultaetentag.de, www.vmft.de)

The General Faculty Assembly (Allgemeiner Fakultätentag) is an organisation that unites all German university faculties (departments). Its aim is to discuss and take position on higher education topics across all disciplines, with an emphasis on linking research and education.

The Assembly of German Veterinary Establishments (Veterinärmedizinischer Fakultätentag) is a member of the General Faculty Assembly. Members of the Assembly of the German Veterinary Establishments are the five German veterinary schools, the Veterinary University of Vienna (AT) and the Vetsuisse faculties of Bern and Zurich (CH). The assembly meets at least once a year. Each faculty is represented by a delegation of faculty members, academic and technical staff as well as students. Representatives of the veterinary profession, the veterinary chambers as well as the Federal Ministry are invited as guests. In March 2016 Prof. Jürgen Zentek, Dean of the Berlin Veterinary School, became President of the Assembly.

Main topics are the curricular and structural developments within the German speaking veterinary faculties as well as relevant political issues. This includes intended changes of the curriculum.

German Veterinary Chamber (Bundestierärztekammer, BTK) and State Veterinary Chamber of Berlin

http://www.bundestieraerztekammer.de/
http://www.tieraerztekammer-berlin.de/

All licensed veterinarians in Germany are members of the State Veterinary Chamber in which they reside. All State Veterinary Chambers are members of the German Veterinary Chamber (BTK). The Establishment is represented with delegates both in the boards and the assemblies at state and federal level, and representatives of the chambers are invited to attend the meetings of the Assembly of the German Veterinary Establishments as well as the “Fachgespräche” in order to receive feedback on educational issues from the profession.

German Veterinary Association (Deutsche Veterinarmedizinische Gesellschaft DVG)

www.dvg.net

The DVG is the German scientific organization of the veterinary profession. The main objective is to promote veterinary research and to make research results accessible to veterinary practitioners through scientific meetings and publications. The DVG is structured in a wide range of sections that represent the various disciplines within veterinary medicine.

The Establishment is represented both with board and ordinary members in most of those sections, thereby contributing to the advancements in veterinary science in Germany.

Appendix to 3.1.4. PAUL catalogue of training stations and education concept

The following table shows a list of working stations offered in PAUL. The full catalogue of stations containing further information will be provided while full visitation.				
part of curriculum	**subject/ Departement**	**Number of station**	**name of station**	**comments**
clinics	**VTH Department for Small Animals**	18	3D Dog Anatomy	computer-based station
		18	3D Cat Anatomy	computer-based station
		18	The Glass Dog	computer-based station
		7c	Handling of small animals	
		2a	interpretation of x-rays	
		2b	positioning for x-ray-diagnostics	
		3	suturing techniques	
		10	surgeons knot	
		4	surgical drain	
		6	urinary catheterization of female dogs	
		8	endotracheal intubation in dogs	
		11	venipuncture and intravenous catheterization in dogs	
		12	bandaging in dogs	
		14	fine-needle aspiration	
		19	canine breath and heart sound simulator	
		20	ultrasound	
		31	ECG and non-invasive measurement of blood pressure	
		21	anaesthesia machine	under construction
		25	endoscopy equipment	under construction
		26a	critical care cat „Fluffy“	
		26b	critical care dog „Jerry“	
		32	spay model female cat and dog	
		35	ophthalmology in dogs	
		36	catheterization of male dogs	currently under construction
		37	dermatologic examination in dogs	no simulator available at the moment
		42	neurologic and orthopedic examination	currently under construction
		43	odontograms in cats and dogs	project, currently under construction
		18	3D Horse Anatomy	computer-based station
		29	Handling and patient information	

The following table shows a list of working stations offered in PAUL. The full catalogue of stations containing further information will be provided while full visitation.				
part of curriculum	**subject/ Departement**	**Number of station**	**name of station**	**comments**
	VTH Department for Horses	9	aseptic dressing	
		5	venipuncture in horses	
		15	bandaging in horses	
		27a	Equine colic simulator	
		27b	„The glass horse“	computer-based station
		34	block-anaesthesia	currently under construction
		39	radiographs of horses	computer-based station
		1b	Breeding Bonnie	
		46	foal for dystocia simulation in horses	
		44	abdominal puncture in horses	currently under construction
	VTH Department for Ruminants and Swine	18	3D Bovine Anatomy	computer-based station
		24a	examination of a cows udder	
		16	examination of milk samples	
		1a	Breeding Betsy	
		40	ultrasound of the reproductive organs of cows	computer-based station
		41	Holstein dytocia simulator	currently supervised by Department for Ruminants and Swine
		24	surgery of teat wounds	computer-based station, model in development
	VTH Department for Birds and Reptiles	18	3D Bird Anatomy	computer-based station
		7a	handling of birds	
		7b	handling of reptiles	
		23a	fixation of reptiles	
		23b	bloodsampling in lizards	
		23c	bloodsampling in tortoises	
		23d	intramuscular injection in reptiles	
		23e	rinse of cloaca	
		23f	subcutaneous injection in reptiles	
		28a	examination of the oral cavity in birds	
		28b	bird swab sample	
		28c	bird swab sample – Chlamydia	
		28d	bird crop aspirate	

The following table shows a list of working stations offered in PAUL. The full catalogue of stations containing further information will be provided while full visitation.				
part of curriculum	**subject/ Departement**	**Number of station**	**name of station**	**comments**
		28e	bird subcutaneous injection	
		28f	bird intramuscular injection	
		28g	blood sampling in birds	
		22	radiographs and ultrasound images of birds and reptiles	computer-based station
preclinics	**Anatomy and Pathology**	13	educational games	Histopathology-Old Maid; UNO-Antibiotics
		45	bone collection	
		47a	Histology microscopical slides	Core Unit Virtual Microscopy can be used via computer
		47b	Histopathology microscopical slides	
	Physiology	18	“SimMuscle”	computer-based station
		18	“SimNerv”	computer-based station
		18	“SimHeart”	computer-based station
		18	“SimVessel”	computer-based station
		18	“SimNiere”	computer-based station about kidney functions
paraclinics	**Nutrition**	33a	examination of food samples	
		33b	diet calculation	computer-based station
	Veterinary Public Health	17	measurement of ammonia in stable air	
	Food Hygiene	38	food hygiene posters	

Concept to integrate the training stations of PAUL – centre for applied training and learning of VMF – into the Curriculum

Starting points:

The variety of stations, offered at PAUL, reflects a huge part of the preclinical, paraclinical and clinical education. For that reason the following teaching events are appropriate to be combined with the possibilities of PAUL:

I. minor clinical rotation in 2nd year (3. & 4. Semester) (for first test period)
II. surgical course in 3rd year (5. Semester) *(planned)*
III. propaedeutics in 3rd year (5. Semester) (for first test period)
IV. radiology in 3rd year (5. Semester) *(planned)*
V. laboratory course in 3rd year (6. Semester) *(planned)*
VI. major clinical rotation in 5th year (9. & 10. Semester) (for first test period)

How to:

Training clinical skills at the workstations of PAUL becomes a mandatory part of successfully taking part in the courses mentioned above.

Stations, students have to complete successfully, are defined in agreement with different institutes and PAUL. Successful attendance has to be confirmed by a member of PAUL staff.

Aim:

The aim of this concept is to prepare students and give them a couple of clinical skills, that are important for safe handling and responsible treatment of a patient. The students should be introduced to the skills and later on demonstrate that they are able to do it and show that they have the first day skills they need for good veterinary practice. Furthermore there should be a certain revision during the curriculum.

Other:

The opportunity of self-directed learning will not be restricted by this concept.

I. minor clinical rotation in 2nd year (3. & 4. semester)	
station	**comments**
handling: horses	teaching basical knowledge for handling the patient safely for all parties involved
handling: cattle	
handling: dogs, cats, pets	
hygiene: basics	get to know the basics of hygiene
hygiene: sterile unpacking and hand - over	
hygiene: surgical dressing	

The semester should be divided into 5 groups and then have the students have to practise and demonstrate the stations listed above each group a day at the beginning of the third semester.

e.g. 140 students per year → 28 per day → divided into groups

After taking part here, they are prepared for doing the minor clinical rotation in every clinics.

II. surgical course in 3rd year (5. Semester)	
station	**comments**
hygiene (handwash and dressing up)	contents corresponding to OSCEs
suture techniques	
surgical knotting	
surgical drain	
endotracheal intubation	
blockanaesthesia	
instruments	under construction
injection techniques	
fine needle aspiration	

Parts of the original courses now take place at PAUL and are supported by members of PAUL staff.

III. propaedeutics in 3rd year (5. Semester)	
station	**comments**
Handling: horses	
Handling: cattle	
Handling: dogs, cats, pets	
Handling: birds and reptiles	
Examination of the udder, CMT	
cardiologic examination in dogs	maybe in parts
gynecologic examination in horses and cattle	
urinary catheterization	

The courses should take place at PAUL, PAUL staff members can do it after being taught by the teachers.

IV. radiology in 3rd year (5. Semester)	
station	**comments**
Interpreting radiographs about:	basical interpretation of common diagnostic findingsin small animals, horses, cattl, birds and reptiles
quality	
correct positioning	
shown organic systems	
pathologies	

After getting the basic theoretical information during the lectures students are taught in small groups to practise interpreting radiographs and ultrasound images.

V. laboratory course in 3rd year (6. Semester)	
station	**comments**
repetition of blood sampling techniques	
taking different types of blood samples	
storage of samples	
how to analyze blood samples	
abdominal puncture in horses	
Cystocentesis	

VI. major clinical rotation in 5th year (9. & 10. Semester)	
Station	**comments**
repetition of handling	at the beginning of every clinical rotation to prepare the students for their practical experience
suture techniques, knotting	
instruments	
hygiene	
gynecological examination in horses and cattle	
obstetrics in horses and cattle	
examination oft he udder, examination of milk samples	
endotracheal intubation	
injection techniques	
blood sampling techniques	
rectal palpation in horses	
radiology	

Two different ways should be mentioned:

In every clinic students have a „PAUL-day“ at starting their rotation. It is mainly revision of stations practised in minor clinical rotation, surgical course and propaedeutics and enhancing their practical skills in various disciplines.

Otherwise they are divided into groups and same procedure as before minor clinical rotation will be done.

Appendix to 3.1.8. Quality assurance of extramural traineeships in the framework of veterinary medicine training in Germany

Veterinary training in Germany is regulated by the German Veterinary Medical Licensure Law (TAppV) from 27. 07. 2006, last amended in 2016, which reflects the requirements of EU Directive 2005/36 / EC and translates these into applicable German law.

Apart from the subjects listed which have to be implemented by immediate teaching through the veterinary establishments (faculties, university), the TAppV provides requirements for content and training places of 1170 hours of mandatory extramural practical training (EPT). This practical training consists of the following four compulsory blocks:

1. Exercise in agriculture, animal breeding and animal husbandry (70 hrs)
2. Practical training in a private veterinary practice or veterinary hospital /clinic (850 hrs)
3. Practical training in hygiene control, control of foodstuffs, inspection of animals for slaughter and meat inspection (175 hrs)
4. Practical training in the public veterinary service (75 hrs)

Students generally complete this practical training in extramural institutions, however, several places are also offered by the clinics and institutions of veterinary establishments (as defined by the EAEVE).

The students independently organize their internships according to the TAppV and receive a certificate from the supervising veterinarian or institution. All certificates are evaluated by the veterinary establishments resp. the State examination offices for compliance with formal criteria according to TAppV.

For the purpose of securing a high standard in veterinary education and improving the achievement of first-day competences of graduates, veterinary establishments have developed learning target catalogs for the various extramural trainings, which include essential subjects and activities that students are to be taught or shown. These catalogs provide a guideline for the respective extramural training for both students and teaching/supervising veterinarians. The written evaluation of each extramural training by the students and supervising veterinarians serves as an important feedback tool.

In order to further improve extramural training in a veterinary practice, the Federal Association of Practicing Veterinarians (bpt) developed the quality label "Veterinary Training Practice" in collaboration with the veterinary establishments and the veterinary student body. Practices complying with these standards are recognized by the bpt as a training practice for students and may carry this label. Veterinary establishments strongly support this initiative and closely cooporate with the professional organization.

We would like to emphasize the following important point to EAEVE: The concept of external veterinary practices that are contractually bound to veterinary establishments and that often are financially rewarded for the implementation of extramural training currently cannot be implemented in Germany since it does not agree with the legislation concerning the organization of extramural training required by German universities. The budgets allocated to the veterinary establishments are designated for university-bound intramural education. It is within the responsibility of the veterinary profession to provide their service capacity for extramural training of students.

In consequence, any financial remuneration of contractual training practices would have to be borne by the individual veterinary establishment, which would cause a considerable reduction of the available resources for intramural training, given the tight budgets provided by the Federal States in Germany.

A further aspect relates to the annual calculation of the capacity of student seats of each individual veterinary establishment on the basis of teaching personnel. This is legally anchored in Germany and governed by the Capacity Directive (KapVO). Any additional person involved in teaching on behalf of a veterinary establishment would be capacity-efficient and has to be included in the calculation of the student seats. As a result of officially contracting veterinarians providing extramural training, the number of students to be enrolled in the first semester would substantially increase while the number of faculty-bound teaching personnel would remain constant. Consequently, the ratio of lecturers per student and the quality of the training during the intramural training would be noticeably reduced.

Therefore, the German Establisments for Veterinary Education jointly ask EAEVE to acknowledge the limitations imposed by the legal framework on the extramural practical training and accept the current status of quality control as implemented by the establishments.

Authored by all Establishments for Veterinary Education in Germany

Appendix to 3.1.9. Guidelines for the clinical rotations at the Department for Horses of the VTH

GUIDELINES FOR THE CLINICAL ROTATION AT THE DEPARTMENT FOR HORSES

Dear students,

throughout the next three weeks, you will do a placement at the Department for Horses at the VMF of the University of Leipzig. The following serves as a brief guideline to help you become oriented and to familiarise yourself with the daily routines of the Department for Horses. For additional questions, please consult the people in charge of the rotation; Ms. Offhaus (Department of Surgery, Orthopaedics, Ophthalmology, Anaesthesiology and Radiology) or Ms. Kasch (Department of Internal Medicine, Gynaecology/Andrology, Neonatology).

Clinic structure

The clinic is divided into the sections of Surgery (incl. orthopaedics, ophthalmology, anaesthesiology and radiology), and Internal Medicine and Reproduction. Senior veterinarians, residents, assistants, technical staff and animal attendants are assigned to each section.

Department head:	Prof. Dr. Walter Brehm
Section head surgery:	Prof. Dr. Walter Brehm
Section head internal medicine:	Prof. Dr. Katharina Lohmann
Senior veterinarians:	PD Dr. Doreen Scharner (surgery), Dr. Antonia Troillet (surgery), PD Dr. Kerstin Gerlach (radiology), Dr. Albrecht Uhlig (internal medicine and reproduction)
Assistant veterinarians:	Dr. Claudia Gittel (head of anaesthesia, resident ECVAA), Dr. Anika Suske (head of reproduction), Dr. Alice Snyder (internal medicine, resident ECVIM), Dr. Ina Erbe (farriery/ hoof orthopaedics), Miguel Espina, Julia Bankert, Dr. Markus Lohr, Simone Delle Thomasa, Julia Offhaus (radiology, ophthalmology), Dr. Anna Pelli (radiology), Dr. Carolin Horstmeier, Stefanie Kasch (internal medicine, reproduction), Susanne Roth (internal medicine, reproduction)

Head secretary:	Claudia Baumgärtel
Clinic secretary:	Gunhild Berndt
Master farriers:	Axel Berndt, Jens Schlüssel
Pharmacy/TMFA:	Kathrin Fink, Laura Krause and trainee, Sophie Drescher and trainees

Phone numbers of employees are given out at the department office (Ms. Berndt).

Rotation

Your group will be subdivided and assigned to individual sections within the Department for Horses on a rotational basis. The detailed schedule will be explained later on and depends on the number of patients.

Your contact persons regarding general or organisational issues during your rotation will be Ms. Offhaus and Ms. Kasch. For specific questions regarding patients, always consult the veterinarian in charge, who will be announced at the beginning of the week.

Information session (obligatory!)

On the first day of the rotation, please gather in the seminar room on the first floor of the surgery department (address: An den Tierkliniken 21), no later than at 7:00 am. After the morning rounds, you will receive an introduction by the senior veterinarian of or assistant veterinarian on duty. They will explain the daily routine and the schedule for administration of medications. Further, you will be briefed on behaviour and correct clothing in the OR. Prerequisite for this is knowledge from the OR training (please come prepared).

After the introduction, please report to Ms. Berndt at the department office, to receive a name tag and the key to the rotation students' room (after completing the rotation, please drop off name tags and keys with Ms. Berndt/Ms. Offhaus/Ms. Kasch). Afterwards, please find the veterinarian on duty in order to receive further instructions.

Contacts and substitutes of individual departments

Department:	Contact:	Substitute:
Surgery	PD Dr. D. Scharner / Dr. A. Troillet	Veterinarian on duty
Radiology	PD Dr. K. Gerlach	J. Offhaus/Dr. A. Pelli
Anaesthesia	Dr. C. Gittel	Veterinarian on duty
Ophthalmology	J. Offhaus	
Internal Medicine	Dr. A. Uhlig	Dr. A. Snyder
Reproduction	Dr. A. Suske	Veterinarian on duty

Tasks during the rotation at the Department for Horses

The housing facilities for patients include 23 stalls in the surgical department and 19 stalls in the department of internal medicine and reproduction. The number of outpatients varies greatly and can thus only be announced on short notice. During the rotation, all in- and out-patients of the respective departments are distributedamong the rotation students. Students are responsible for taking/assigning patients on the first day of the rotation, or when admitting patients. Students are in charge of their assigned patients from admission to discharge, or until the end of the rotation.

Your responsibilities include:

- Taking the history when the patient is presented to the Department for Horses (upon request from the veterinarian on duty)
- Reviewing the history when receiving a patient transfer (emergency patients/emergency duty)
- Initial examination/general clinical examination when the patient is admitted to the Department for Horses; this will take place in the presence of the client/animal owner (upon request from the veterinarian on duty)
- Daily examination of hospitalized patients
- Consultation with the veterinarian on duty regarding possible laboratory examinations
- Accompanying patients during diagnostic examinations (radiographs, ultrasound, MRI, BAL,...)
- Assisting with surgical procedures on patients
- Writing surgery reports for assigned cases (Word document)
- In consultation with the veterinarian on duty, presenting patients and their findings during rounds (daily in the section of internal medicine/reproduction, every Wednesday in the section of surgery)
- Knowledge of all relevant patient information
- Treatment and administration of medication (see treatment plan)
- Should there be scintigraphic examinations, you can participate once
- Writing a final report for the client or referring veterinarian (Word document) in the department of surgery (this report is the basis for presenting the patient during the medical rounds on Wednesday; further, it serves for exam preparation)

Communication with owners

Client communication is generally conducted by the veterinarian in charge, and documented in the patient management programme “VETERA®”. Should owners/visitors on site ask you questions regarding patients, you should politely explain that you cannot give out information and that you will consult the veterinarian in charge immediately.

Daily routine

Please bring the following utensils with you at the beginning of your rotation, as you will need them daily:

- white gown, weatherproof, warm clothing if needed
- safety footwear (rubber boots may be needed for ORs)
- stethoscope
- thermometer
- scissors

Daily schedule

Beginning of service

Morning rounds start at **7:15 am in the department of surgery**, or **7:30 am in the department of internal medicine/reproduction**.

Prior to the medical rounds, you have to inform yourself about the general condition and vital parameters of your patients (also possibly checking for lameness, defecation, feed intake/-quantity, bandages, pulsation, coughing, nasal discharge,...). Treatments may also have to be conducted with the attending veterinarian or student assistant.

Administration of medications

During the morning rounds, the veterinarian on duty keeps a roster (see Annex 2). This serves as an overview for students and veterinarians regarding upcoming examinations or treatments, and details the schedule for the administration of medications. All tasks are completed in consultation with the veterinarian on duty or the student assistant. Administration of medications is noted on the medical chart with date and time and checked off on the roster.

In order to prevent a mix-up of medications or the mistakes in their administration, medicines must be labelled immediately after preparation. Unlabelled syringes and medicines are promptly disposed of. All medications must be checked for marketability (expiration date, start date of usage, colour, consistency, smell, etc). Medication containers must be labelled with the date as soon as the medication has been opened.

Should there be any questions regarding the correct medication, marketability or route of administration, please ask the veterinarian in charge **before** administering the medication.

Treatments / Examinations

You should always examine your patients as a pair; you can also ask for help from the technical staff and animal attendants of the Department for Horses. As already mentioned, you must be supervised for all tasks. You should accompany your patients during all examinations and/or treatments. If you cannot be present for some reason, be sure to familiarize yourself with all new information and findings as soon as possible.

Examining and treating patients requires a foundation of basic knowledge, which you should acquire before the rotation, in order to prevent unnecessary incidents (see Annex 3).

End of service

Your work day ends with the afternoon rounds at 3:45 pm in the section of surgery, or 4:00 pm in the section of internal medicine/reproduction. If required to guarantee intensive and appropriate care for your patients, you may have to work additional hours.

Night shifts / Weekend services

During the rotation in the Clinic for Horses (3 weeks), each student has to sign up for three on-site after-hours duties and three on-call emergency duties (weeknight 4pm-8am, weekend day 9am-9pm, weekend night 9pm-9am). During on-call duty, you should be able to arrive on site within 20-30 minutes.

We appreciate additional help with the after-hours duties!

In case of low patient volume when on after-hours duty, the veterinarian on duty may ask you to be available by phone rather than having to stay overnight in the clinic. If an emergency is expected, you will be informed by phone and should arrive at the clinic within 20-30 minutes.

The coverage of additional after-hours duties should be arranged on the first day of the rotation and is the responsibility of the rotation students. Please submit the schedule to the clinic office.

You will be off duty the day after an on-site after-hours duty or after you were called in during an on-call duty. You will have to hand over your patients to your classmates before you leave, and you are responsible for updating yourself on all findings and activities concerning your patients prior to the morning rounds the next day.

Duty:	Start:	End:
After-hours (Mo. – Thu.)	3:45 pm/ 4:00 pm	8:00 am
After-hours (Fri.)	3:45 pm/ 4:00 pm	9:00 am
Weekend (day)	9:00 am	9:00 pm
Weekend night (Sa.)	9:00 pm	9:00 am
Night shift (Su.)	9:00 pm	8:00 am

If you cannot complete an emergency duty due to health issues, please sign off in the morning at the office with Ms. Baumgärtel or Ms. Berndt.

Continuing education

Discussing patients or specific diseases

The veterinarians on duty strive to discuss in-patients and/or other specific diseases in detail with you. Please think ahead of topics and examination procedures you would like to discuss during your rotation. Please hand in a list of topics to Ms. Offhaus or Ms. Kasch by the middle of the first rotation week.

In-depth OR training / Independent studies

Along with the preparation for patients, their actual care and their follow-up, you should also dedicate time for an in-depth review of the topics of your surgical courses (5th semester).

Please use the opportunities offered by PAUL for independent practice. If you have questions regarding various suture techniques, please consult the senior or assistant veterinarians on duty.

Further, assisting with surgeries during the day and after-hours helps to practice suture techniques. We expect that you possess the required background knowledge or update your knowledge independently (annex 3).

The surgery exam is based on the content of the surgical techniques course/surgical course.

Learning objectives / Competences

We consider the competences listed in annex 3 important and essential. Please approach the veterinarians on duty directly in order to be able to practice/complete these. Prerequisite is the theoretical understanding of these activities! The overall learning goal is the practical application of theoretical basic knowledge.

The team of the Department for Horses wishes you a steep learning curve, success and fun at work!!

Annex 1: **general examination / special findings**

The general clinical examination is performed according to the guidelines of the section of Internal Medicine, Department for Horses(also refer to the handout). During the three-week long rotation, you and your classmates should practice the thorough general clinical examination and your ability to present findings accurately and confidently.

Rounds:

Presentation of patients in rounds should be concise and limited to a brief summary of relevant clinical findings. The following should always be included:

- brief signalment (age, breed, sex, coat colour)
- brief history (when presenting the patient for the first time)
- **Diagnosis!**
- Current vital signs (pulse, respiration, temperature) and, if indicated, intestinal sounds with subjective evaluation
- Brief information about specific examinations, findings and/or treatments regarding the primary disease (surgery, radiographs, bandage changes, wound treatment, MiBi, BAL, etc).
- Secondary findings (e.g. cardiac murmur, respiratory noises, increased digital pulses, abnormalities of the skin, parasitological findings, swellings and more).
- Your own, subjective evaluation (e.g. improvement or worsening of the patient's condition)
- Plan for further treatment (make your own suggestions!)

Annex 2: **Roster (example):**

Arbeitsplan Chirurgie - Datum: Dienstag 12.01.2010

Box	Patient	HF/AF/T	Behandlungen	Kath.	Medikamente	06.00	08.00	12.00	14.00	16.00	18.00	20.00	00.00	Tel.	Erl.
9li	"Krela" Dietz		AU		10 Mio Pen i.v.		O			O			O		
			VK/KathKtr		36 ml Genta i.v.		O								
			Castktr/BK	5	11 ml Flunixin i.v.							O			
			Pulsationskontrolle		1 ml Innohep s.c.		O								
			Bandagen		T-Ktr		O			O		O			
10li	"Freckel" Löchel		AU		10 Mio Penicillin i.v.		O			O			O		
			VK/Kathktr		36 ml Genta i.v.								O		
			VBK/BK	4	Flunixin nach Bedarf										
					T-Ktr		O			O			O		
11li	"Ambrona" Gronewold		AU		1 ml Innohep s.c.		O								
			WK		11 ml Cobactan i.m.					O					
			VK	/	Funixin 500kg p.o.		O								
			nur Heu!!		T-Ktr		O			O			O		
			Nachuntersuchung Repro												
			Pulsationskontrolle		Schutzkleidung										
12li	"Lady" Handro		AU												
			BK												
			VBK	/											
13li	"Odysseus" Tierernährung		AU												
			BK												
			VBK	/											
			Enilconazol (Di, Fr, Di)												
14li															
6re	"Tercia" Schneider		AU		AS nach Plan		O	O		O		O	O		
			Augenkontrolle links		Flunixin p.o. für 500 kg		O								
			Anfärben links	/											

Annex 3: **Basic knowledge / Learning goals:**

Students are expected to possess or review theoretical knowledge about the following learning goals prior to the rotation. The list serves as a point of reference for the sign-off sheet each student keeps individually. During the rotation, as many items as possible should be practiced. The key points marked with * are available at specific stations in PAUL (Practical Training and Learning Centre) and students are expected to practice these independently. The acquired skills are evaluated on a live horse by the treating veterinarian, or at PAUL stations by the PAUL team or the veterinarian on duty.

1. Full theoretical knowledge (subsection Horse) of the whole curriculum
2. General safety regulations, handling of horses*
3. Signalment*, dental age determination*
4. General clinical examination procedure
5. Injection technique: options for and location of injections, preparation, procedure, material, volumes, (intravenous injection*)
6. Venous catheterization: theoretical procedure, type of catheter, patient preparation
7. Rectal examination procedures: theoretical procedure, normal findings (possible pathological findings)*
8. Inserting nasogastric tubes: theoretical procedure, preparation, prerequisites, indications
9. Ultrasound abdomen, genital tract: procedure, preparation, normal findings, indications
10. Applying bandages: bandaging materials, types of bandages, procedure*, special considerations (pressure marks etc)
11. Wounds/wound treatment: types of wounds, wound description!, stages of healing, treatment options, procedures
12. Lameness examination: approach, procedures (hoof testing, flexion tests etc.)
13. Regional anaesthesia*
14. Ophthalmology: examination procedure, instruments, approach
15. Neurological examination procedure
16. Skin examination procedure
17. Reproduction: Andrological and gynaecological examination procedure*
18. Initial evaluation and stabilization of foals
19. Radiography: theoretical and practical radiation safety, primary beam paths, interpreting images*
20. Anaesthesiology (theory, proof testing, protocols for general anaesthesia and sedation)
21. General hygiene: preparation of the surgical field, surgical hand scrub*, sterile gowning and gloving *
22. Suture techniques* (theoretical knowledge of suture techniques, simple skin sutures), suture materials and instruments
23. Placing surgical drains, wound closure
24. Independent and timely review and documentation of findings and surgical interventions
25. Drafting of OR reports (OR reports are entered into VETERA® (OR) or drafted as a Word document, and presentation to the attending veterinarian)
26. Drafting discharge notes (templates can be found in the rotation folder in the “green salon” and in VETERA®)

You can find the required documents on Moodle in the respective courses: propaedeutics, surgery course, lecture notes for individual modules. Detailed instructions for the individual practice stations are available in the PAUL lab.

Appendix to 4.1.1. Research facilities in vicinity of the VMF

Faculty of Veterinary Medicine and its scientific environment

1. Main Entrance of the Faculty
2. Bio-City of the University of Leipzig
3. Fraunhofer Institute for Cell Therapy and Immunology
4. Max-Planck-Institute for Evolutionary Anthropology
5. Deutsche Nationalbibliothek (German National Library)

Appendix to 4.1.2. Premises for lecturing, group work and practical work

Details of the premises are displayed in tables 1, 2 and 3 of the appendix to 4.1.2.

Table1 to appendix to 4.1.2.: Premises for lecturing

No.	Location	Spaces
1	Institute of Veterinary Anatomy, Histology and Embryology	145
2	Institute of Veterinary Pathology 1	132
3	Institute of Veterinary Pathology 2	94
4	Department for Ruminants and Swine (former AGTK)	138
5	Department for Horses (former CTK)*	123
6	Department for Ruminants and Swine (former MTK)	148
7	Central Building for Teaching (Herbert Gürtler Haus)	160
8	Department for Small Animals	80
Total Number of spaces in lecture halls		**1020**

* not in use due to novel restrictions imposed by the regulations on fire protection (Brandschutz)

Table 2 to appendix to 4.1.2.: Premises for group work

No.	Location	Places
1	Institute of Veterinary Anatomy, Histology and Embryology	12
2	Institute of Veterinary Anatomy, Histology and Embryology	12
3	Institute of Animal Hygiene and Veterinary Public Health, seminar	20
4	Institute of Food Hygiene, course 1	24
5	Institute of Food Hygiene, course 2	24
6	Institute of Food Hygiene, library	30
7	Institute of Food Hygiene, seminar 1	20
8	Institute of Food Hygiene, seminar 2	10
9	Institute of Parasitology, course (also used by the Institute of Bacteriology and Mycology, Institute of Virology, Institute of Immunology and Institute of Veterinary Pathology)	72
10	Institute of Pathology, seminar 1	10
11	Institute of Pathology, seminar 2	10
12	Institute of Physiological Chemistry	32
13	Institute of Physiology, seminar	20
14	Institute of Virology, seminar	12
15	Central Building for Teaching, seminar 1	40

No.	Location	Places
16	Central Building for Teaching, seminar 2	40
17	Central Building for Teaching, seminar 3	40
18	Department for Birds and Reptiles, seminar	20
19	Department for Horses, check-up room	25
20	Department for Ruminants and Swine, demonstration 1	10
21	Department for Ruminants and Swine, demonstration 2	10
22	Department for Ruminants and Swine, demonstration 3	25
23	Department for Horses, exercise ring	12
24	Department for Horses, seminar	12
25	Department for Horses, surgery 1	12
26	Department for Horses, surgery 2	12
27	Department for Horses, x-ray	4
28	Department for Small Animals, anaesthesia	6
29	Department for Small Animals, CT	2
30	Department for Small Animals, dental examination room	2
31	Department for Small Animals, endoscopy	2
32	Department for Small Animals, library	30
33	Department for Small Animals, MRI	2
34	Department for Small Animals, poli-clinic 1 – 5	25
35	Department for Small Animals, seminar	10
36	Department for Small Animals, specialities 1 – 5	25
37	Department for Small Animals, stationary patients 1 – 7	14
38	Department for Small Animals, surgery	3
39	Department for Small Animals, x-ray, ultra-sonography 1 – 3	6
Total number of places in rooms for group work		**697**

Table 3 of appendix to 4.1.2.: Premises for practical work (number of laboratories for practical work of students)

No.	Location	Spaces
1	Institute of Veterinary Anatomy, Histology and Embryology, dissection	50
2	Institute of Veterinary Anatomy, Histology and Embryology, preparations	84
3	Institute of Animal Hygiene and Veterinary Public Health, chemistry	10
4	Institute of Animal Hygiene and Veterinary Public Health, lab 1 – 4	26
5	Institute of Animal Hygiene and Veterinary Public Health	6
6	Institute of Animal Hygiene and Veterinary Public Health	4

No.	Location	Spaces
7	Institute of Animal Nutrition, Nutrition Diseases and Dietetics, computer pool	18
8	Institute of Animal Nutrition, Nutrition Diseases and Dietetics, course 1	25
9	Institute of Animal Nutrition, Nutrition Diseases and Dietetics, course 2	25
10	Institute of Animal Nutrition, Nutrition Diseases and Dietetics, lab	15
11	Institute of Bacteriology and Mycology, lab	4
12	Institute of Food Hygiene, lab 1 – 8	24
13	Institute of Food Hygiene, lab 11 – 13	10
14	Institute of Food Hygiene, slaughtering facility (140 m^2)	24
15	Institute of Food Hygiene, meat technology (70 m^2)	24
16	Institute of Food Hygiene, milk technology (55 m^2)	20
17	Institute of Anatomy, Histology and Embryology, microscopy	75
18	Institute of Pathology, necropsies	65
19	Institute of Pharmacology, course	16
20	Institute of Pharmacology, lab	8
21	Institute of Physiology, course 1	20
22	Institute of Physiology, course 2*	20*
23	Institute of Physiology, course 3*	20*
24	Institute of Virology, lab 1 S2	12
25	Institute of Virology, lab 2 C	12
26	Institute of Virology, lab 3 S2	8
27	Department for Birds and Reptiles, course 1	20
28	Department for Birds and Reptiles, course 2	20
29	Department for Birds and Reptiles, necropsies	6
30	Department for Ruminants and Swine, Department for Horses, course	40
31	Department for Ruminants and Swine, Department for Horses, lab	5
32	Department for Ruminants and Swine, demonstration 1	35
33	Department for Ruminants and Swine, demonstration 2	35
34	Department for Horses, course (PAUL)	30
33	Department for Small Animals, lab 1 – 3	12
Total number of spaces in rooms for practical work		**788**

* Due to heavy water damage in January 2018, 40 places for practical courses were destroyed in the Institute of Physiology. Reconstruction will (presumably) be finished in 2021

Appendix to 4.1.3. Description (number, size, species, …) of the premises for housing: - healthy animals, - hospitalised animals, - isolated animals

Table 1 of appendix to 4.1.3.: Premises for housing healthy animals (e.g. for teaching purposes)

Animal species	Number/places of animals	Institution
Cattle	4 (3 with calves)	Department for Ruminants and Swine
Horses	12	Department for Horses
Swine	10 10 3 (2 with piglets)	Department for Horses (former CTK) Department for Ruminants and Swine (former MTK) Department for Ruminants and Swine
Small Ruminants	6 6 4 (3 with lambs) 4 *	Department for Horses (former CTK) Department for Ruminants and Swine (former MTK) Department for Ruminants and Swine Institute of Physiology
Dogs	12 3	Institute of Pharmacology, Pharmacy and Toxicology Department for Small Animals
Poultry	12	Department for Birds and Reptiles
Reptiles / pet birds	10/10	Department for Birds and Reptiles

* Sheep with rumen fistula

Table 2 of appendix to 4.1.3.: Premises for housing hospitalized animals

	Species	No. places
Regular hospitalisation	cattle	31
	horses	40
	small ruminants	11
	pigs	33
	dogs	74
	cats	25
	exotic animals (reptiles)	11
	pet birds, wild birds	19
	other*	13

* Rodents, fish, poultry

Table 3 of appendix to 4.1.3.: Premises for housing isolated animals

	Species	No. places
Isolation facilities	farm animals and horses	9
	small animals	12
	pet birds, reptiles	7
	other*	1

* wild birds

Appendix to 4.1.7. Description of the equipment used for - teaching purposes, - clinical services (diagnostic, treatment, prevention, surgery, anaesthesia, physiotherapy) Specialised equipment (selection)

Center for Anatomy and Pathology
Transmission Electron Microscope (TEM) (*Zeiss EFTEM Libra 120, Zeiss EM 900)*
Scanning Electron Microscope *LEO 1430 vp* with crypto unit *MED 020* (Bal-Tec)
Light Microscope Zeiss *Axiophot* with digital camera (bright field-, fluorescence- and DIC-Microscopy); setup for intra cellular injection of fluorescent dyes
Cell culture incl. 2 biology safety cabinet (fully equipped BSL-level 2 cell culture laboratory)
Rigid Endoscope (Storz)
Plastination laboratory für S/E/Sheet plastination
Inverted Microscope Nikon TE 2000 with fluorescence features
FluoKin System (Biplanar High Frequency Kinematography) for XXROM analyses
Tec Scan pressure measuring system
Mobile optoelectronic measuring system with 10 cameras
Audio-visual equipment in the dissection room and situs room (HD ceiling visualiser, Data Projector, wall mounted Monitors & PCs)
LSM Laser scanning Microscope (Leica) incl. life cell imaging
Confocal Axioplan 2 mot imaging (Zeiss), OptiGrid Structured-Light Imaging System (Qioptiq)
special-software (Digital Slide Box, Firma VMscope), campus-licenses „Core Unit Virtuelle Mikroskopie“
Donatello tissue processor
Linear stainer for histological slices
Tissue-Tek cover slipper for histological slices
Center for Veterinary Basic Sciences
Microscope Zeiss
Inverse Fluorescence Microscope Olympus IX50
Fluorescence-Spectrometry incl. luminescence
Imager G:BOX incl. chemiluminescence
RT-PCR Cycler
Microplate Luminometer Glomax
High Performance Liquid Chromatography - Mass Spectrometry (HPLC-MS)
3 High Performance Liquid Chromatography analytical / preparative
2 Gas Chromatography
2 Atom Absorption Spectrometry
Calorimetry
Ussing Chambers with 24 test sites
Liquid Scintillation Analyzer Tri-carb; Gamma Counter Wizard
Ultra Centrifuge
Sonography
Rotation Vacuum Concentrator

Center for Infectious Diseases
Flowcytometer and Cell Sorter **BD FACSAria III (5 Laser)**
Flowcytometer BD LSRFortessa mit HTS Loader (5 L)
Flowcytometer BD FACSCalibur mit HTS Loader (2 L)
Matrix assisted laser desorption ionization-time of flight mass spectrometry (MALDI-TOF MS)
Beckman Coulter Ultracentrifuge
Real Time Polymerase Chain Reaction (rt-PCR)
Fluorescence Microscopy
Laser-Scanning-Mikroskop Leica TCS SP8, In-live-Imaging
Terra Grafik Workstation Imaris 8.0
Computer assisted image analyis Leica Q500MC
Diverse cell incubators
Multiplex-System MAGPIX
Vibratome – Precision cut slicer EMS5000
Gentle-MACS for dissociation of tissue
Telemetry system TSE/Stellar inkl. pump system iPrecision
Biological Safety Cabinet (BSL 2)
Center for Veterinary Public Health
Ultracentrifuge
GC-MS-Apparatus
Fluorescence Microscopy
Real Time Polymerase Chain Reaction (rt-PCR)
Biological Safety Cabinet (BSL2)
KINPen Plasma System
High Pressure Plant (bis 1000 MPa, 0-70 °C)
Spray-drying equipment Büchi B290
Texture Analyzer CT 3 Brookfield
Trichinoscopic examiner
Cryoscopic examiner
Compact HAUGH unit meter
Visualizer System VZ 9
Vacuum Sealer
Equipment for analyzing and processing milk
Equipment for analyzing and processing meat
Equipment for slaughtering
Laboratory equipment (e.g. for determining proteins and lipids, photometry, enzymology)
Dark-field microscopy
Insectarium

Veterinary Teaching Hospital
Sonography (e.g. abdominal/orthopaedic Sonography, Endosonography, mobile Sonography System)
Digital radiology (e.g. Intra-oral x-ray device 4DC Revolution with CR7 Vet Dent)
Endoscopy (gastroenterologic, bronchoscopic)
Scintigraphy
Computed tomography (CT)
Magnet resonance tomography (MRI) (incl. 3 Tesla MRI)
Digital camera Nikon DS-5M and 1 observation microscope, incl. Nikon Imaging Software NIS Elements Version 4.60
Compact colour video camera und 1 observation microscope Axioskop 20
Chemistry Analyser
Blood Clotting Analyser
Blood Gas Analyser
Arthrex (ACP) Vet Systems w. separator
Plasma Thawer
Laboratory Freezer -80°C
Echocardiography
CAT scanner
Arthroscopy
Operating microscope ENT with HD video recording
Operating microscope Neurology with HD video recording
Neurosurgery-Unit
Electrodiagnostics unit– Electromyography, Electroneurography, auditory brainstem responses
Compact laser, Helium-YAG Laser, CO2-Laser
Unit for optical navigation
Electrosurgery
Inhalation anaesthesia units incl. respirator
Monitoring Units (Multiparameter Monitors)
Defibrillator
Oxygen Intensive Box
HDO-sphygmomanometer VET HDO Pro
OR1 OR Documentation
PEARL II OP-HD-Streaming
Phacoemulsification Device
Esaote ultrasound scanner (Mylab Twice with 4 probes/Mylab delta vet with 3 probes (mobile))
Nuclear medicine equipment: single head nuclear gamma camera MIE Germany (FOV 610x400mm, LEAP collimator), diagnostic nuclear medicine laboratory, Tc-99m-generator ordered on demand
Stationary X-ray unit Gierth HF 1000 (100kW generator)

Portable X-ray unit Gierth TR 1930
Mobile C-arm system Philips BV 300
Storage-phosphor screen system Fuji FX 5000
Magnetic Resonance Imaging (MRI)
PACS, soft copy distribution (Cura systems, SonoWin), RIS (Vetera.net)
HF-Surgery
Ligasure®-system
2 flat panel detectors
Full dental equipment for horses incl. buccotomy, high pressure water application, dental curettes, dental probes, forceps diff. sizes
2 sets electric tooth rasp
2 Endoscopes (upper airway, gastroscopy)
Horse Swinglifter® PM
Surveillance Monitor Vitality parameters (used on awake and narcotized animals, medium and large; in Department for Small Animals as well)
Head-Mounted Endoscope for dynamic examination of horses
Full equipment for equine osteosynthesis
Arthroscopy monitor, pump, light source, camera head
Laparoscopic optic
2 Endoscopes (upper airway , gastroscopy)
GE ultrasound scanner LOGIQ 5 with 3 probes
Video endoscopy
Compact Laser
Digital X-ray mammography system AGFA Feinnadelkristall
Ultrasound devices(4)
Microscope Olympus BX41 with ColorView II
Compact Laser 980 nm
Ultrasound system GE Logiq 7
Digitizer (R) for Storage Phosphor Radiography DX-S
Modified tilting tables for claw trimming, orthopedic surgeries and teat and udder surgeries (9)
Bovine water therapy system
Training simulator for calvings
Endoscopy for teat and abdominal surgery (2)
Claw trimming chute (3)

Appendix to 5.1.2. Live animals, cadavers and material of animal origin used in practical non-clinical animal work

Tables 1-3 of the appendix to 5.1.2. give an overview over live animals, cadavers and material of animal origin used in non-clinical animal work in physiology (table 1), animal nutrition (table 2) and meat hygiene (table 3).

Table 1 of the appendix to 5.1.2.: Live animals, cadavers and material of animal origin used in practical physiology training

Live animals, cadavers and material of animal origin used in practical physiology training			
	AY 2014/2015	**AY 2015/2016**	**AY 2016/2017**
Bovine	Blood and plasma (300 mL) urine (2 L)	Blood and plasma (300 mL) urine (2 L)	Blood and plasma (300 mL) urine (2 L)
Small ruminants	Ovine blood and plasma (400 mL) Liquid from rumen (9 L) 4 fistulated sheep	Ovine blood and plasma (400 mL) Liquid from rumen (9 L) 4 fistulated sheep	Ovine blood and plasma (400 mL) Liquid from rumen (9 L) 4 fistulated sheep
Pigs	Blood (50ml)	Blood (50ml)	Blood (50ml)
Dogs/Cats	Blood (50 mL) Urine (2 L) 2 dogs	Blood (50 mL) Urine (2 L) 2 dogs	Blood (50 mL) Urine (2 L) 2 dogs
Horses	Blood and plasma (300 mL) Urine (2 L)	Blood and plasma (300 mL) Urine (2 L)	Blood and plasma (300 mL) Urine (2 L)
Poultry & Leporids (incl. Birds and rodents)	Blood (10ml) 4 guinea pigs	Blood (10ml) 4 guinea pigs	Blood (10ml) 4 guinea pigs
Exotic animals	Blood (10 mL, primates, new world camelids)	Blood (10 mL, primates, new world camelids)	Blood (10 mL, primates, new world camelids)
Other	2 primates (Callithrix jacchus) Institute of physiological chemistry	-	-

Table 2 of the appendix to 5.1.2.: live animals, cadavers and material of animal origin used in practical animal nutrition training

Live animals used in practical animal nutrition training			
	Academic year		
	2014/2015	2015/2016	2016/2017
Bovine	LVG herd: Body condition scoring, feed intake behavior and health parameters (e.g. feces, quality control milk) in relation to feed composition (e.g. total mixed ration) and quality	LVG herd: Body condition scoring, feed intake behavior and health parameters (e.g. feces, quality control milk) in relation to feed composition (e.g. total mixed ration) and quality	LVG herd: Body condition scoring, feed intake behaviour and health parameters (e.g. feces, quality control milk) in relation to feed composition (e.g. total mixed ration) and quality
Small ruminants	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces) in relation to feed composition and quality	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces) in relation to feed composition and quality	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces) in relation to feed composition and quality
Pigs	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces, fertility) in relation to feed composition and quality (e.g. mycotoxins)	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces, fertility) in relation to feed composition and quality (e.g. mycotoxins)	LVG herd: Body condition scoring, feed intake behavior and health parameters (feces, fertility) in relation to feed composition and quality (e.g. mycotoxins)
Dogs/Cats	-	-	-
Horses	Herd Institute of Animal Nutrition: Horse handling, body condition score and feeding practice	Herd Institute of Animal Nutrition: Horse handling, body condition score and feeding practice	Herd Institute of Animal Nutrition: Horse handling, body condition score and feeding practice
Poultry & Leporids (incl. Birds and rodents)	-	-	-
Exotic animals	-	-	-
Other	-	-	-

Table 3 of the appendix to 5.1.2.: live animals, cadavers and material of animal origin used in practical meat hygiene training

Species	Number of slaughterhouse material / pre-slaughter livestock		
	Academic year 2016/17	Academic year 2015/16	Academic year 2014/15
Food producing animals (excl. equids)			
Bovine	4 half carcasses 4 esophagus/lung 4 intestinal tract	4 half carcasses 4 esophagus/lung 4 intestinal tract	4 half carcasses 4 esophagus/lung 4 intestinal tract
Small ruminants for pre-slaughter examination	6 sheep	6 sheep	6 sheep
Small ruminants	6 complete bodies	6 complete bodies	6 complete bodies
Pigs	110 half carcasses 90 esophagus/lung 90 intestinal tract	110 half carcasses 90 esophagus/lung 90 intestinal tract	110 half carcasses 90 esophagus/lung 90 intestinal tract
Dogs/Cats	1 cat	1 cat	1 cat
Horses/Equids	0	0	0
Poultry	40 hens 20 turkeys	40 hens 20 turkeys	40 hens 20 turkeys
Exotic animals	2 nutrias	2 nutrias	2 nutrias
Other	2 wild boars 2 raccoons	2 wild boars 2 raccoons	2 wild boars 2 raccoons

Appendix to 5.1.4. Description of the organization and management of the VTH and ambulatory clinics

The **Department for Birds and Reptiles** offers an in-house emergency service after normal working hours until 5 pm from Monday to Friday with a veterinarian on call. Holidays and weekends are covered from 9 am to 5 pm with a veterinarian on call who is present from 10 am to noon and from 4 pm to 5 pm. A veterinarian is on duty every day of the year, who is present at the department or available in short time via telephone call. Out of hour cases are referred to local practices and hospitals on duty.

The **Department for Horses** offers a 24/7 emergency service with two veterinarians and two student assistants on site (one each for surgery and internal medicine), a backup surgeon on call and a senior specialist for equine internal medicine on call from 4 pm to 7 am. The structure of the department sees professorial specialisation in surgery and internal medicine, while equine reproduction, diagnostic imaging and anaesthesiology are covered by assistant professor or clinician positions.

The **Department for Ruminants and Swine** offers a 24/7 emergency service with two veterinarians on call from 3.30 pm to 7.30 am and weekend emergency services with one veterinarian on call, one veterinarian on standby and one senior veterinarian in background service. During weekdays, four veterinarians cover the clinical work and 2-4 veterinarians are involved in ambulatory services and herd health visits. The department serves two farms with routine herd management. In these cases, the ambulatory services function as the sole veterinary service provider, thus giving students the chance to be introduced to the regular veterinary services in herd management. The Department for Ruminants and Swine further offers individual visits for herd health management. On these occasions, system analyses are made at the farm site together with attending students. These farms are then followed up

to support them with the correction of the weaknesses identified. Students are involved in all site visits and therefore, enabled to study the procedure of system analysis in animal production. A further activity aiming at the recruitment of veterinary students for farm animal medicine is the organisation of two farm animal days for 1st and 4th year students. In this case, larger groups of students are taken out to production herds, where they have the chance to analyse the production system together with experts of different specialisations. This activity is not part of the regular curriculum and is offered to students as a voluntary activity.

The **Department for Small Animals** offers 125 consultation hours in different specialisations (internal medicine, surgery, cardiology, neurology, ophthalmology, dermatology, oncology, ear/nose/throat diseases (ENT), dentistry and diagnostic imaging) and a 24/7 emergency service with 2 veterinarians on site from 7 a.m.- 4 p.m. (weekends: 1 or 2 veterinarians), one veterinarian and 2-3 students from 4 p.m. to 7 a.m. During weekends 1-3 veterinarians are on site, dependent on the time of day. One internal medicine senior and one surgery senior veterinarian are on call during night time and on weekends.

Service hours offered by the Department for Small Animals

During the week

- Hospital operations from 7:00 am to 3:30 pm [all veterinarians]
- During the whole day service there is a specialised veterinarian working in the in-house emergency service, together with a student on their EPT.
- Late shift from 2:30 pm to 11:00 pm (overlap with 1. of one hour) [one veterinarian]
- night shift from 10:00 pm to 8:00 am (overlap with 2. of an hour) [one veterinarian]
- Background for emergencies: surgical ward and neurology are on call, anaesthesia, medical imaging, ENT are reachable.

On Weekends

- One veterinarian for in-house emergency service from 8:00 am to 6:00 pm (day-I-service)
- One veterinarian for in-house emergency service from 1:00 pm to 11:00 pm (day-II-service)
- One veterinarian working as on site service Saturday and Sunday from 8:00 am to 4:00 pm [supervising in-patients]
- Veterinarian for in-house emergency service from 10:00 pm to 8:00 am (night). On call for emergencies: surgical ward and neurology are on call, anaesthesia, medical imaging, ENT are reachable

Saturdays & Sundays there are available (regularly)

- from 8:00 am to 1:00 pm two veterinarians on site
- from 1:00 pm to 4:00 pm three veterinarians on site
- from 4:00 pm to 6:00 pm two veterinarians
- from 6:00 pm to 10:00 pm one veterinarian
- from 10:00 pm to 11:00 pm two veterinarians
- from 11:00 pm to 8:00 am one veterinarian

Appendix to 5.1.5 Description of how the cadavers and material of animal origin for training in anatomy and pathology are obtained, stored and destroyed

For **Veterinary Anatomy** and embryology**,** horses are mostly donated by owners. Animals are euthanised when brought to Anatomy training. In case there are no donations available, individual animals for slaughter are purchased from horse dealers and used as experimental animals with the appropriate experimental animal report (by the authority in charge and in accordance with §8 (1) Animal Protection Act). Body parts of horses (heads and distal limbs) are abattoir material. Cattle and smaller ruminants come from agricultural facilities, when animals are diseased or unable to breed. Irregularly and in the spring, there are stillbirths from clinics and sheep farms. Distal limbs of cattle, body parts of smaller ruminants and heads are all material from abattoirs. Bodies of pigs are euthanised experimental animals left to Anatomy. Poultry were kept as laying hens or as animals for slaughter. They are applied for, approved and then euthanised, in cooperation with the Department for Birds and Reptiles. Exotic and pet birds are donated by surrounding practices and hospitals, as well as by the Department for Birds and Reptiles.

Animal carcasses up to the size of small ruminants or parts are stored frozen at -20°C.

Animals that are used for several courses are preserved and stored in tubs (mostly smaller animals and body parts). Larger animals are used directly and subsequently disposed of in parts. Isolated organs, dissected large animals as demonstration specimens and halved heads, for example, are stored in formalin solutions. For large animal specimens there is a frame for set rotation using a formalin fixation, which ensures preservation for several weeks. Subsequently, they are stored and cooled at 4°C. Such specimens are only demonstrated to students under an extractor hood. Further, plastinated specimens and PEG-specimens are available, which are stored at room temperature. Bone specimens are available at the osteology for independent study as well as in the Anatomy's stock. Disposing of carcasses or body parts takes place in the Institute of Pathology of the VMF. Material is transported in leakproof containers and tons.

In the **Veterinary Pathology**, pathologic-anatomical presentations are partly made with, e.g. organs of pigs and cattle that were confiscated at the abattoir (Weißenfels, Aschaffenburg and Borgers) and are delivered twice a week. Suitable organs are used for presentations, while around 20 organs are used per presentation. Further, fixative solutions are used to preserve specimens with pathological organ alterations. The Institute of Veterinary Pathology holds a collection of at least 500 specimens that stem from various organs and animal species while presenting different symptoms. The species include dogs, cats, pets, cattle, small ruminants, pigs, horses, zoo- and wild animals. Organ systems include the respiratory tract, gastro-intestinal tract, genitourinary tract, locomotor system, skin, the nervous and circulatory system and lymphatic organs. Infectious and degenerative changes, malformation and tumours are considered. For each pathological-anatomical presentation, 10-20 specimens are chosen.

Appendix to 6.1.3. Details on IT-Services at VMF

Table to appendix to 6.1.3. Overview of IT-Services at VMF

	Central IT-Services	Decentralised IT-Services
	URZ	Faculty / external service provider
Email	General account maintenance, esp. student accounts	Account maintenance Exchange-System
Hardware	Server maintenance	Faculty specific clinical server systems
Cloud services	General cloud services	Sectransfer – specific cloud services and Data Exchange system
WiFi	Eduroam (partial coverage)	Vetmed-WLAN (full coverage) including guest-WLAN system
Software	Campus licenses, eg Citavi, Windows, Microsoft Office	Specific faculty licenses, eg Kaspersky antivirus, Email SPAM filters
Student services	Student administration E-learning services Moodle system Student evaluation tools	Examination software (eg, UCAN)
Clinical and Administration IT-Services		Clinic management software VETERA® PACS-Systems storage software DMS Software

Further details on the IT-Services of VMF

- Directory services for user-, role- and rights administration (SSO)
- Network server for maintenance of the computer (central file storage)
- Central terminal server services (Windows server 2012R2/2016 terminal server)
- Print server with accounting print
- Central software distribution via Active Directory
- E-mail and groupware services (Microsoft Exchange 2010/2016)
- WWW-server Web services
- Operating SQL data base servers for clinic administration systems and faculty internal management
- Operating central PACS-DICOM image storage systems (digital x-raying, CT, MT)
- Central backup services (Backup-To-Disk-To-Tape)
- Secured access to WiFi for employees on the Faculty campus
- Secured external access to the Faculty network (VPN) for employees
- Roaming services for WiFi for employees
- Login process and user profiles for employees are unified for all faculties
- Central reactive and proactive IT security measurements (e.g. Firewall, Intrusion Detection, Intrusion Prevention, Protection agains Viruses and spam)
- Central server supervision
- Regular IT security checks for servers and client systems

Appendix to 10.1.1. Research Foci at the VMF

1. DIGIT (Diseases and integrity of the gastrointestinal tract)
2. MOVE (Model systems, orthopedic research, veterinary science, education for postgraduates)
3. TFN (Translational research on neurogenesis, neurodegeneration, and neuroinflammation [Translationale Forschung zur Neurogenese, -degeneration und -inflammation])
4. iLAF (Integrated respiratory tract research [integrierte Lungen- und Atemwegsforschung])
5. ZIVET (Lifestyle diseases, infection prevention, public health, nutrition/epidemiology, animal welfare [Zivilisationserkrankungen, Infektionsprophylaxe, Verbraucherschutz, Ernährung/ Epidemiologie, Tierschutz])

Appendix to 10.1.2. Number of post graduate students registered at European College Residency Trainings Programs (2008–2014)

European College Residents	2008	2009	2010	2011	2012	2013	2014
ECVDI (European College of Veterinary Diagnostic Imaging)	1	1	1	1	2	2	2
ECEIM (European College of Equine Internal Medicine)						2	2
ECVIM-CA (European College of Veterinary Internal Medicine – Companion Animals)						2	2
ECVS (European College of Veterinary Surgeons)	4	4	4	4	2	1	2
ECZM (avian) (European College of Zoological Medicine – Avian Specialty)	1	1	1	2	2	1	1
EVPC (European Veterinary Parasitology College)			1	1	2	2	2
TOTAL	**6**	**6**	**7**	**8**	**8**	**10**	**11**