Doctoral School of Veterinary Science
Study Programme

effective as of 05 September 2024

Budapest

Contents

1. Preamble

This document has been prepared for PhD students based on the Codes and regulations of the Doctoral School and the University. Its purpose is to assist PhD students in their academic progress.

Relevant legislation and regulations:

1) Act CCIV 2011 on the national higher education of Hungary (NFTV or Higher Education Act)
2) ***Govt. Decree No***. 387/2012 on doctoral schools, the order of doctoral procedures and habilitation.
3) University of Veterinary Medicine Budapest Doctoral Codes and Regulations of Veterinary Science
4) Rules of Operation of the Doctoral School of Veterinary Science
5) The accreditation requirements and professional evaluation criteria of the Hungarian Accreditation Committee for assessing the establishment and operation of doctoral schools

2. General Data of the Doctoral School

Name of the institution operating the doctoral school	University of Veterinary Medicine Budapest
Doctoral School's Name	Doctoral School of Veterinary Science (UVMB DS)
Official English Name of Doctoral School:	Doctoral School of Veterinary Science
Address of Doctoral School:	1078 Budapest István u. 2.
Website of Doctoral School:	https://univet.hu/hu/oktatas/doktori-iskola/
Doctoral School ODT Identifier:	242
Year of Commencement of the Doctoral Programme:	2016
Head of Doctoral School:	Prof. Dr. Bence Rácz
Name, position, e-mail and phone number of contact person(s)	Evelin Bariz, Doctoral School Assistant phd@univet.hu +36-30/277-6059
Languages of the doctoral training programme	Hungarian, English
Doctoral School's categorization in terms of discipline	Agrarian sciences
Branch of Science of Doctoral School:	Veterinary sciences
Name of doctoral programme(s)	Aladár Aujeszky Doctoral School Programme of Theoretical Veterinary Sciences Marek József Doctoral School Programme of Clinical and Food Chain Safety Sciences
Name of doctoral degree issued	PhD
Duration of Studies:	8 semesters
Form of Study:	Full-time or individual preparation

Funding:	Hungarian state-funded or other scholarship, self-financed (third-party)

3. Description of the doctoral programme

3.1. Doctoral programmes

The Doctoral School operates two doctoral programmes, fully covering the subfields of veterinary science:

- **Aujeszky Aladár Doctoral Programme of Theoretical Veterinary Sciences:** this programme is primarily specialised in doctoral research related to basic veterinary sciences (e.g. morphology, physiology, biochemistry, genetics), paraclinical sciences (e.g. pharmacology, pathology, animal nutrition, parasitology, animal breeding), as well as microbiology and epidemiology.
- **Marek József Doctoral Programme of Clinical and Food Chain Safety Veterinary Sciences:** this programme focuses on doctoral research related to clinical veterinary fields (internal medicine, surgery, obstetrics), addressing diseases of companion animals (dogs and cats), horses, farm animals, and exotic species. In addition, the programme places special emphasis on research related to food chain safety and interdisciplinary studies that, in line with the "*One Health*" concept, integrate animal and public health issues and are connected to other scientific disciplines.

3.1. Admission Requirements and Procedure of the Doctoral Programmes

The Doctoral School (DS) announces the available admission opportunities and the admission requirements each year in the national admission guide, on the university's website, and in the call for applications published on www.doktori.hu, which also includes the current research topics. The DS may also announce mid-year (cross-semester) admission opportunities. The application form for admission is available electronically on the university's website. Application deadlines are determined by the DS in the invitation for application.

Applicants must hold a Doctor of Veterinary Medicine degree obtained from a Hungarian or foreign university, or a master's degree awarded in another field specified in the research topic description. The degree must be obtained in the year of application, but no later than before the admission decision of the DHC. Applicants holding a bachelor's degree and qualification may also apply if they are simultaneously enrolled in or have applied for a master's programme. Students enrolled in a single-cycle master's programme may apply during the final two academic years, provided they

hold active student status. Applicants must hold a state-recognised, at least intermediate (B2) level complex ("C" type) English language examination certificate or an equivalent qualification.

To initiate the **admission procedure**, applicants must submit a research plan prepared under the supervision and with the approval of their prospective supervisor. On the application form, applicants must indicate the doctoral programme in which they wish to pursue their studies. The admission procedure consists of the following parts:

1. **Written assessment** of computer skills. The purpose of this test is to assess the applicant's MS Word and Excel user skills. The maximum score attainable in the written assessment test is

   10 points, minimum requirement for an admission: 6 points (The written computer skills test may be replaced by a valid ECDL (European Computer Driving Licence) certificate, which is worth 8 points. To achieve a higher score, participation in the test is required.)
2. Oral interview before the members of the Doctoral School Council (DIT): prior to the interview, the applicant's research plan is reviewed by two assessors appointed by the head of the relevant doctoral programme. During the oral interview, the applicant briefly presents the main elements of the proposed doctoral research and answers questions posed by the members of the DSC.

The applicant's performance is evaluated according to the following **scoring table**:

Criteria		Subcriteria				Maximum number of attainable points	Required minimum number of points	Required minimum %
1.	**MS Word, MS Excel skills**					10	6	60
2.	**Research plan (average score of two reviewers)**	2.1	Professional validity			25	18	72
		2.2	Methodological compliance			4	2	50
		2.3	Professional / material / financial conditions of feasibility			4	2	50
		2.4	Thesis Supervisor's evaluation based on earlier work as TS			2	1	50
		Total:				***45***	***29***	**64**
3.	**Performance in oral hearing**	3.1	Applicant's proficiency in the area			30	22	73
		3.2	Disposition and/or subjective impression			5	3	60
		Total:				***35***	***25***	**71**
Total:						**80**	**54**	**68**
4.	**Extra points:**	4.1	scientific work for TDK Student Research Societies (UVMB conference 3, national conference 4)			3 - 4		
		4.2	Degree average > 4.51			3		
		4.3	State-recognized Advanced Level English Certificate			3		
		4.4.	publication performance	IF = 0.1-0.5	First author	2 /article (max. 4)		
					Not first author	1 /article (max. 2)		
				IF > 0.5	First author	3 /article (max. 6)		
					Not first author	2 /article (max. 4)		
	Maximum number of bonus points that can be validated:					**10**		

Admission is conditional upon achieving the minimum scores specified in the scoring table. Based on the total score obtained, the DSC ranks the applicants and decides on their admission, taking into account the number of available scholarship and self-financed positions. This decision is subject to DHC approval.

The DHC notifies the applicants about the decision in writing by late July and/or late January.

Rejections by the doctoral council may be appealed if they violate a legal regulations or institutional policy. Appeals must be submitted to the University's Rector within 8 working days after receiving the rejection. The Rector issues a resolution on the appeal within 15 days after receipt. The resolution may not be appealed.

In the event of admission, the notification will include the date of enrolment, the documents required for enrolment, the start date of the academic year, and information regarding the costs associated with the programme.

3.2. Structure of the doctoral programmes

Throughout the doctoral programme, doctoral students shall conduct their studies and research based on the personalized plan prepared under the guidance of the thesis supervisor. The research plan must be approved by the DSC during the admission process.

3.2.1. Phases of the doctoral programmes

According to the 2015 amendment of the Higher Education Act, the duration of the programme is 8 semesters, of which the first four semesters

constitute the **"training and research"** phase, and the second four semesters constitute the **"research and dissertation"** phase. Between these two phases (at the end of the 4th semester), the student must take a comprehensive examination.

3.2.2. The comprehensive exam

As part of the comprehensive examination, students must, in addition to taking subject-specific exams, give an account of their scientific and research progress. At this examination, students must demonstrate that by the end of the 8th semester they will be capable of writing their dissertation and of meeting all the requirements necessary for obtaining the PhD degree.

Admission to the comprehensive exam is subject to the attainment of at least 130 credits in the "study and research phase" (first 4 semesters) of the doctoral programme as well as that of all "study credits A" required by the DS' programme (except for students preparing individually for attaining their doctoral degree). For individual candidates, the doctoral degree procedure and student status are established upon the successful completion of the comprehensive examination; the application alone does not create student status. Applications for the comprehensive examination are evaluated by the DSC, which, upon acceptance of the application, appoints the examination committee and specifies the examination subjects.

Regulations concerning the procedure of the comprehensive examination are set out in Section II. 13 of the Code of Doctoral Studies and in the Rules of Operation of the UVMB

Doctoral School.

The comprehensive examination consists of two parts: a **theoretical part and a dissertation part**. In the theoretical part, the candidate takes an oral examination in two subject areas.

The recommended topics for the comprehensive examination, listed separately for each programme, are shown in the two tables below.

- The subject areas (one main subject and one secondary subject, with at least 15 topics/questions per subject) are determined jointly by the chair of the examination committee, the examining members, and the supervisor, in alignment with the student's research topic.
- The list of examination topics must be approved in advance by the Doctoral School Council (DSC), at least two weeks before the comprehensive examination.

Provision of recommended literature:

- The supervisor prepares a personalised list of references for the student to provide the theoretical and methodological background for the comprehensive examination.
- During the preparation period, the supervisor also provides opportunities for consultation.

Recommended subject areas for the theoretical part of the comprehensive examination:

Aujeszky Aladár Doctoral Programme of Theoretical Veterinary Sciences:

Veterinary bacteriology	Bacteriological laboratory diagnostics
Veterinary biochemistry	Bioinformatics
Veterinary physiology,	Epidemiology
Veterinary Genetics	Anatomy of Domestic Animals
Veterinary Pharmacology	Helminthology
Veterinary Immunology	Molecular Biological Research Methods
Veterinary Histology	Protozoology
Veterinary Nutrition	Cell Culture Methodology
Veterinary virology	Virological laboratory diagnostics
Arachnoentomology	

Marek József Doctoral Programme of Clinical and Food Chain Safety Veterinary Sciences:

Poultry Infectious Diseases	Veterinary Clinical Nutrition (Large Animals)
Infectious Diseases of Ruminants	Veterinary Pathology
Infectious Diseases of Dogs and Cats	Veterinary Surgery (small animals)
Infectious Diseases of Horses	Veterinary Surgery (Horse)
Infectious Diseases of Swine	General Reproductive Biology
Veterinary healthcare management studies	Assisted Reproduction Techniques
Animal hygiene	Food hygiene
Veterinary Surgery (small animals)	Herd Health Management on Livestock Farms
Veterinary Internal Medicine (equine)	Clinical Biostatistics
Veterinary Internal Medicine (Farm Animals)	Pathological Diagnostic Methods
Veterinary Clinical Nutrition (Small Animals)	Microbiological Testing Methods in Food Hygiene
Diseases of Fish, Amphibians and Reptiles	Diseases of the Honeybee
Diseases of Rodents	

The dissertation part of the comprehensive exam consists of the examinees demonstrating, in the form of a lecture, their knowledge of the literature, presenting their research findings and their research plans for the second phase of the doctoral programme as well as the schedule of writing their dissertation and publishing their findings. The exam committee evaluates the theoretical and the dissertation parts of the exam separately. The comprehensive exam is successful if the majority of the committee members considers both exam components successful.

3.2.3. Degree attainment procedure

The doctoral student is awarded the final pre-degree certificate (absolutorium) upon earning the required 240 credits. Doctoral students must submit the application to initiate the degree procedure and the final version of the doctoral dissertation within three academic years following the comprehensive examination. The prerequisites for this are the completion of the absolutorium and the successful completion of the pre-defence (workshop debate) of the dissertation. The regulations concerning the pre-defence are set out in the Code of the Studies for the UVMB Doctoral School.

Preconditions for doctoral degree attainment:

a) **Documented independent scientific achievements:**
   - At least **two** English scientific releases. one with first author credits) published or approved for publication by a referenced HSWR Q1-Q4 journal with an impact factor of ≥0.3;
   - At least one peer-reviewed scientific publication in Hungarian must be published in a national journal.
   - Of the required publications, no more than one may be a literature review; at least two articles must present the results of the candidate's own research work.

b) Proof of **compliance with the foreign language requirements** must be submitted no later than the time of application for the doctoral procedure: a state-recognised, at least B1 level (basic) language examination in one of the following languages — French, German*, Russian, Spanish, Italian, Japanese, Chinese, or Latin. In addition to the languages listed above, the school may also accept other foreign languages in which there is a peer-reviewed, professional scientific journal in the science branch of the doctoral student's PhD topic at the time of the doctoral programme.

   * In terms of German as the second language, it is sufficient to take the oral part of the

state-recognised language examination at level B1 (basic level); successful completion of this fully satisfies the requirement for knowledge of a second language.

The requirement for a second language may also be fulfilled by holding a state-recognised complex English language examination at least at level C1 (advanced), or an equivalent, officially validated foreign language examination, or by holding a degree in languages or in specialised translation.

c) **Submission of dissertation and defence in public debate.** The regulations concerning the dissertation and public defence are set out in Sections 17-18 of the Code of the Studies for the UVMB Doctoral School.

3.2.4. Individual preparation

The purpose of the individual preparation track is to enable professionals who hold a master's degree and have significant teaching and/or research experience, as well as substantial publication achievements, to obtain a PhD degree. Candidates following the individual preparation track are exempt from the academic requirements of the first 4 semesters of the doctoral training and may therefore take the comprehensive examination immediately after admission. However, they must fulfil all other requirements for obtaining the doctoral degree. Regulations concerning the procedure of the comprehensive examination are set out in Section II. 11 of the Code of Doctoral Studies and in the Rules of Operation of the UVMB Doctoral School.

3.3. The UVMB DS credit system

During the 8 semesters of the programme, students must earn **at least 240 ECTS** (European Credit Transfer System) **credits**. As in undergraduate studies, it is advisable to earn 30 credits per semester, where 1 credit corresponds to 30 hours of intellectual work or effort. A minimum of 18 credits per semester is required for the semester to be accepted. To be eligible for the comprehensive examination, students must earn at least 130 credits. Students who fail to meet any of the credit requirements may not continue their studies.

Credits must be earned from the following **four types of course units**:

1. "**A" type = Academic course unit (study or training credits)**
Credits awarded for completing courses taken during the first (training and research) phase of the doctoral programme. According to the curriculum (Sections 3.4 and 3.5), the subjects offered by the Doctoral School of UVMB are divided into three groups:

- A1= Compulsory courses

- A2 = Compulsory elective (general or supplementary) subjects, specific to the two Doctoral Programmes
- A3 = Freely elective (specialised professional) subjects

The supervisor may propose that academic activities completed during a foreign exchange programme or other international or domestic mobility be recognised as A3-type course units, at a rate of 1 credit per 30 hours. External professional training aimed at mastering new methodologies may likewise be counted as an A3-type course unit, also at 1 credit per 30 hours, based on the supervisor's recommendation and with the approval of the head of the Doctoral School.

2. "**B" type = Research course unit (research credits):** Credits obtained through supervised research carried out under the research plan outlined in the student's individual research plan. The number of research credits earned during each semester is proposed by the supervisor and approved by the head of the Doctoral School. The typical credit value for research activities is 25 credits per semester, while at the end of the 4th and 8th semesters, at least 35 credits must be earned. The credit value proposed by the supervisor is determined by taking into account the credits earned under the "Scientific Credits" course unit, which in the 4th and 8th semesters is complemented by "Teaching Credits" or
"Clinical Credits", up to a maximum of 40 credits. The doctoral student is responsible for ensuring that, by earning additional credits where possible, they reach the minimum of 130 credits required before the comprehensive examination.

3. **"C" type = Scientific activity course unit (scientific credits):** Credits obtained through the publication of scientific papers in scholarly journals or conference proceedings, or through other activities recognised as publications.

4. **"D" type = Teaching course unit (teaching credits – Aujeszky Programme) or Clinical course unit (clinical credits – Marek Programme)**: Credits earned through teaching activities performed in undergraduate education. A minimum of 60 hours of undergraduate teaching activity (including preparation time) is required. Clinical credits are obtained through work carried out at the university's clinics. A minimum of 60 hours of clinical activity is required, and the supervisor is responsible for certifying the completion of this requirement. During the 8 semesters of the programme, the student must complete the minimum required 60 hours of either teaching or clinical activity, with a conversion rate of 1 credit per 12 hours. Teaching or clinical credits may also be awarded for supervising undergraduate students preparing theses or Scientific Students' Association (TDK) papers, at a rate of 1 credit per supervision, based on the supervisor's recommendation and with the approval of the head of

the Doctoral School. During the 8 semesters of the programme, the doctoral student is required to supervise at least two undergraduate students preparing theses or two students participating in the Scientific Students' Association (TDK). Certification of this supervision is the responsibility of the supervisor.

Throughout the programme, the doctoral student must earn credits from each course unit type according to the credit distribution specified in the following table. To obtain the absolutorium, the student **must achieve the minimum required number of credits in each course unit category separately, as well as accumulate a total of at least 240 credits.**

Aujeszky Aladár Doctoral Programme of Theoretical Veterinary Sciences

Unit	Minimum requirement			
	Study and research phase (1st- 4th Semester)		Research and dissertation phase (5th-8th semester)	
"A1" Compulsory courses	Basics of Biostatistics	3 credits		
	Research Planning	3 credits		
	Writing Academic Publications	3 credits		
	Laboratory Animal Science and Animal Welfare	8 credits		
"A2" Compulsory elective courses	Special subject for the fundamental discipline under the doctoral programme.	3 credits		
"A3" Freely elective subjects	Not a requirement.	0 credits		
"B" Research credits	Guided research 1.	25 credits	Guided research 5.	25 credits
	Guided research 2.	25 credits	Guided research 6.	25 credits
	Guided research 3.	25 credits	Guided research 7.	25 credits
	Guided research 4.	35 credits	Guided research 8.	35 credits
Before the Comprehensive Exam		**130 credits**	**After the Comprehensive Exam**	**110 credits**
Total:				**240 credits**
Credits attainable based on additional activities				
"C"* Scientific credits	Complete releases published in D1, Q1VET publications.			5 credits
	Complete releases published in Q1, Q2 publications.			3 credits
	Complete releases published in D3, Q4 publications.			1 credits
	Presentations held in Hungarian conferences.			2 credits
	Posters presented in Hungarian conferences.			1 credits
	Presentations held in foreign language conferences.			3 credits
	Posters presented in foreign language conferences.			2 credits
	Documented application for grant or participation in a submitted research grant proposal.			2 credits
"D" ** Teaching credits	Credits earned through teaching activities performed in undergraduate education. Minimum 60 hours.			5 credits
	Supervision of undergraduate students preparing theses or Scientific Students' Association (TDK) papers: 1 credit per student. A minimum of two supervisions is required.			2–5 credits.

* Credits earned under the "C" category may be counted as part of the "B" category courses (Guided Research) based on certification by the supervisor.

** Credits earned under the "D" category may be added to the Guided Research 4 and Guided

Research 8 courses, up to an additional +5 credits, based on certification by the supervisor. The maximum credit value for these courses is 40 credits.

Marek József Doctoral Programme of Clinical and Food Chain Safety Veterinary Sciences

Unit	Minimum requirement			
	Study and research phase (1st- 4th Semester)		Research and dissertation phase (5th-8th semester)	
"A1" Compulsory courses	Basics of Biostatistics	3 credits		
	Research Planning	3 credits		
	Writing Academic Publications	3 credits		
	Laboratory Animal Science and Animal Welfare	8 credits		
"A2" Compulsory elective courses	Special subject for the clinical discipline under the doctoral programme.	3 credits		
"A3" Freely elective subjects	Not a requirement.	0 credits		
"B" Research credits	Guided research 1.	25 credits	Guided research 5.	25 credits
	Guided research 2.	25 credits	Guided research 6.	25 credits
	Guided research 3.	25 credits	Guided research 7.	25 credits
	Guided research 4.	35 credits	Guided research 8.	35 credits
Before the Comprehensive Exam		**130 credits**	**After the Comprehensive Exam**	**110 credits**
Total:				**240 credits**
Credits attainable based on additional activities				
"C"* Scientific credits	Complete releases published in D1, Q1VET publications.			5 credits
	Complete releases published in Q1, Q2 publications.			3 credits
	Complete releases published in D3, Q4 publications.			1 credits
	Presentations held in Hungarian conferences.			2 credits
	Posters presented in Hungarian conferences.			1 credits
	Presentations held in foreign language conferences.			3 credits
	Posters presented in foreign language conferences.			2 credits
	Documented application for grant or participation in a submitted research grant proposal.			2 credits
"D" ** Clinical credits	Credits attainable through university clinical work, requiring a minimum of 60 hours of clinical activity.			5 credits.
	Supervision of undergraduate students preparing theses or Scientific Students' Association (TDK) papers: 1 credit per student. A minimum of two supervisions is required.			2–5 credits.

* Credits earned under the "C" category may be counted as part of the "B" category courses (Guided Research) based on certification by the supervisor.

** Credits earned under the "D" category may be added to the Guided Research 4 and Guided Research 8 courses, up to an additional +5 credits, based on certification by the supervisor. The maximum credit value for these courses is 40 credits.

3.4. Curriculum Matrix of UVMB DS

During the training and research phase, students must complete all A-type compulsory subjects. It is recommended that A1 subjects be completed during the first and second semesters, while A2 subjects may also be completed in the third and fourth semesters. The freely elective subjects provide specialised professional knowledge related to specific research fields. By earning A3 credits, students are offered flexibility within the curriculum, allowing them to choose courses that align with their individual research topics and professional interests.

The training plans of the two doctoral programmes are identical in terms of general research methodology (A1 subjects). The A2 (compulsory elective) subjects are specifically recommended for students of the respective doctoral programmes, while the A3 (freely elective) subjects are available to students of both programmes.

3.5. Subjects/courses of UVMB DS

The courses announced by the UVMB DS are listed in the table below. All courses are announced in the Neptun system, which is managed by the Doctoral School's administrative officer. Courses are held at the times and locations indicated in the Neptun system. The scheduling and timetable coordination of individual courses are also carried out by the Doctoral School's administrative officer.

Type	Title of Subject/Course
A1	Basics of Biostatistics
	Research Planning
	Writing Academic Publications
	Laboratory Animal Science and Animal Welfare
A2	[1]Research ethics
	[1] Introduction into Education Based on Communication
	[1]Geoepidemiology
	[1]Experimental Design and Evaluation
	[2]Design of Clinical Trials
	[2]Introduction to Clinical Research
	[2]Data Analysis and Data Interpretation
	[2]Consumer Studies in Food Science
	[2]Holistic Approach in the Food Chain System
A3	Risk Assessment
	Forecasting and Horizon Scanning
	Research Funding in Food Science
	Risk Communication in the Food Chain
	Design and evaluation of epidemiological studies
	Regression models, regression calculation in research
	Advanced Excel studies
	Models in population biology
	Computer-assisted modelling
	Culturing of Eukaryotic Cells
	Redox state and oxidative stress in cellular life
	Introduction into human virology
	Introduction to Evidence-Based Veterinary Medicine
	Genomics Practicum
	Introduction to the Use of LaTeX
	Immunohistochemical methods in veterinary histology
	Bioinformatics
	Microbiological biotechnology
	The molecular physiology of the cells
	Scientific Writing
	Speaking at Conferences
	Advanced English Language 1-3.
	Basic German Language 1-2.
	Basic Spanish Language 1-2.
	Basic Italian Language 1-2.
	Basic French Language 1-2.
B*	Guided research 1.
	Guided research 2.
	Guided research 3.
	Guided research 4.
	Guided research 5.
	Guided research 6.
	Guided research 7.
	Guided research 8.

[1]Aujeszky Programme; [2]Marek Programme

* The doctoral student's supervisor certifies the completion of the course and based on the student's performance, proposes the number of credits to be awarded.