UVMB's Doctoral School of Veterinary Science programme
as of academic year 2022/23

As of September 2016, the Hungarian Higher Education Act modified the training period of doctoral schools from six semesters to eight semesters and divided the programme into two phases. The first four semesters form the "study and research" phase, while the second phase comprises "research and dissertation". At the end of the fourth semester of the doctoral programme, students shall be required to conclude the study and research phase with a comprehensive examination aimed to measure and assess their progress made in study and research. Doctoral students shall submit their doctoral dissertations within three years after the comprehensive examination.
Throughout the 48-month doctoral programme, doctoral students shall conduct their studies and research based on the personalized research plan prepared under the guidance of the thesis supervisor and approved by the DS council of Veterinary Science.

The measurement unit of study requirements is the **credit***, as defined by the European Credit Transfer System*.
Course units are defined as study activities or new knowledge acquisition activities which are characterized by

- a particular number of classes,
- a verification of the attainment of the knowledge and therefore
- correspond to a particular number of credits.

Credits are the measuring units of the study, teaching and research activities performed by doctoral students in order to meet their academic requirements.
*1 credit = 30 hours of intellectual investment into studying (including contact classes and individual preparation)
To get their semester validated, students need to obtain at least: 18 credits.
Students need to obtain a minimum of 120 credits before their complex exam (in their first four semesters).
Students need to obtain a minimum of 240 credits during their 48-month programme.
Doctoral students failing to meet the above requirements are not allowed to continue their studies.

Credits must be obtained from the following four types of course units.
1. Type "A" = study course unit (study credit).

- A1= Required mandatory subjects
- A2= General supplementary subjects
- A3= Elective subjects.

2. Type "B" = research course unit (credit):
"Study through research" under the guidance of the thesis supervisor, while carrying out the research programme detailed in the research plan.

3. Type "C" = publication activity unit (credit):
Article publication in scientific journal, conference, other activity considered as publication

3. Type "D" = teaching course unit (credit):
Teaching activity aimed to attain practice in higher education.

	Credit value		
	Semester	Min.	Max.
Guided research	1., 2., 3., 4.	60*	80 (Max. 4 times 20
	5., 6., 7., 8.	75*	100 (Max. 4 times 25)
A1 required mandatory subjects	1., 2., 3., 4.	30	30
A2 general supplementary subjects	1., 2., 3., 4.	5	6
A3 Elective subjects	1., 2., 3., 4.	12	20
Teaching	Total of semesters	0	15
Publication	Total of semesters	12	12 <

* If the thesis supervisor deems the student's activity inappreciable in any of the semesters, the student may not be able to complete the programme. Considering the required 240 credits.

	Study and research phase						Research and dissertation phase			
	Semester 1	Semester 2	Semester 3	Semester 4			Semester 5	Semester 6	Semester 7	Semester 8
Guided research					120 credits	COMPREHENSIVE exam				
A1 required mandatory subjects							-	-	-	-
A2 general supplementary subjects	-						-	-	-	-
A3 Elective subjects	-						-	-	-	-
Teaching										
Research										
Publication										

Available
Required

Distribution and validation of credits required

The final pre-degree certificate may be issued if the student attained at least 240 credits. In the first four semesters of the programme i.e., in the "study and research phase", students need to obtain a minimum of 120 credits, which must include 100% of the study credits indicated in their research plan. The first phase of the programme is concluded with a comprehensive exam. In lack of such an exam, doctoral students are not allowed to continue their studies. In addition to demonstrating their material knowledge in the comprehensive exam, students must also prove they are able to meet their publication requirements in the "research and dissertation" phase as well as finish their dissertation by the deadline.

Table 1

Comprehensive credit calculation table with subjects taught in the doctoral (PhD) programme and their respective credit values at the Doctoral School of Veterinary Science

	PhD	**Type "A" course units**	**Subject coordinator**	**No. of cl.**	**cr.**
1	**A1**	Fundamentals of biostatistics and computer-assisted solution of the related tasks	**Dr. Jenő Reiczigel**	**32**	**3**
2	**A1**	Application-oriented biostatistics in Excel	**Zsolt Abonyi-Tóth**	**16**	**2**
3	**A1**	Graphic design and presentation	**Ibolya Bajcsayné Fábián**	**24**	**3**
4	**A1**	Statistical methods of experimental design and evaluation	**Dr. Jenő Reiczigel**	**24**	**4**
5	**A1**	Library informatics with distance learning	**Katalin Bikádi**	**20**	**3**
6	**A1**	Laboratory animal science and animal welfare	**Dr. Sándor György Fekete**	**80**	**8**
7	**A1**	Experimental design in natural sciences	**Dr. János Kiss**	**24**	**4**
8	**A1**	Writing a scientific publication.	**Dr. Erzsébet Hornung**	**28**	**3**
1	**A2**	Introduction to pedagogy: fundamentals of communicative didactics .	**Dr. Marietta Molnár**	**12**	**3**
2	**A2**	Design and evaluation of epidemiological studies	**Dr. Jenő Reiczigel**	**24**	**3**
3	**A2**	Research ethics	**Dr. Mikolt Bakony**	**10**	**2**
4	**A2**	Regression models, regression calculation in research	**Dr. Jenő Reiczigel**	**24**	**3**
1	**A3**	Advanced Excel studies	**Dr. Jenő Reiczigel**	**24**	**2**
2	**A3**	Bayesian statistical methods	**Dr. Andrea Harnos**	**42**	**3**
3	**A3**	Bioinformatics	**Dr. Tibor Bartha**	**20**	**2**
4	**A3**	Culture of eukaryotic cells	**Dr. Péter Gálfi**	**40**	**4**
5	**A3**	Introduction into human virology	**Dr. Mária Takács**	**30**	**3**
6	**A3**	Immunohistochemica methods in veterinary histology	**Dr. Katalin Halasy and Dr. Bence Rácz**	**20**	**2**
7	**A3**	Microbiological biotechnology	**Dr. Tamás Bakonyi**	**16**	**2**

8	**A3**	Models in population biology	**Dr. Szilvia Kövér**	**30**	**2**
9	**A3**	Comparative virology	**Dr. Balázs Harrach**	**10**	**2**
10	**A3**	Redox state and oxidative stress in cellular life	**Dr. Péter Gálfi**	**6**	**2**
11	**A3**	Computer-assisted modelling	**Dr. Szilvia Kövér**	**45**	**3**
12	**A3**	The molecular physiology of the cells	**Dr. Tibor Bartha**	**15**	**2**
13	**A3**	Multivariate statistical methods	**Dr. Andrea Harnos**	**42**	**3**

Creditation of publications

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.

Q1-Q2 (4 credits), Q3-Q4 (3 credits)

Event	Time invested	Credit value
Conference, in Hungarian	10 hours*	3-4 conference days/ 1 credit
Defence/habilitation	10 hours*	3 defences 1 credit
Conference - in foreign language	20 hours*	2-3 conference days/ 1 credit
poster	10 hours	1 credits

* 1 conference day - 10 hours of intellectual time invested.

* 1 foreign language conference day - 20 hours of intellectual time invested.

Complex exam topics:

- **Veterinary healthcare management studies**
- **Swine viral diseases**
- **Immunology basics**
- **Clinical biostatistics**
- **Antibiotic use and characterization of antibiotic classes**
- **Animal hygiene**
- **Internal medicine/Gastroenterology**
- **Bioinformatics**
- **Veterinary biochemistry**
- **Protozoology**
- **Epidemiology**
- **Molecular biology**
- **Veterinary bacteriology**
- **Traditional and molecular methods in bacteriological laboratory diagnostics**
- **Molecular and immunological methods in bacteriological laboratory diagnostics**
- **Heard health management of intensive dairy farms**
- **Gastroenterology (small animals)**
  Dietetics (small animals)
- **Viral diseases in felines**
- **Examination methods in pathological diagnostics**
- **Veterinary virology**
- **Molecular methods applied in viral diagnostics**
- **Methods applied in the laboratory diagnostics of viral diseases**
- **Molecular methods in viral diagnostics**
- **Food hygiene**
- **Microbiological testing methods (food hygiene)**