

**At Louvain-la-Neuve - 180 credits - 3 years - Day schedule - In French**

Dissertation/Graduation Project : **NO** - Internship : **YES**

Activities in English: **YES** - Activities in other languages : **NO**

Activities on other sites : **NO**

Main study domain : **Sn English:**

## VETE1BA - Introduction

### Introduction

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## VETE1BA - Teaching profile

### Learning outcomes

The first year of studies focuses on the acquisition of the core skills and knowledge in the basic sciences such as Chemistry, Biology, Mathematics and Physics.

The general objective of the second and third years is to give the students a solid grounding in the various aspects of the Biology of the most common healthy domestic animals (horses, bovines, ovines, pigs and birds). The courses are conceived in a complementary manner so that the student can integrate them into a coherent ensemble, by means of his individual work and self-study.

In addition to these studies, the bachelor's programme in Veterinary Medicine will enable the student to acquire expertise in documentary research, and in computer-aided preparation and presentations of written and oral reports in French and English.

On successful completion of this programme, each student is able to :

1) Maîtriser et utiliser les principaux concepts des sciences fondamentales et disciplinaires nécessaires à la compréhension de la complexité d'un être vivant.

1.1. Démontrer une compréhension approfondie des concepts de base des sciences fondamentales :

- organiser, par l'étude des concepts fondamentaux de la biologie, ses connaissances disciplinaires dans une perspective évolutionniste et centrées sur l'organisme animal.
- maîtriser, en chimie générale et en chimie organique, la dimension moléculaire de la matière vivante, prérequis indispensable à l'étude de son fonctionnement normal ou anormal.
- maîtriser, en physique et en mathématiques générales, les lois fondamentales de l'univers qui président à tout phénomène, y compris celui de la vie, mais également, plus encore que par l'étude des autres matières, se confronter à la rigueur du raisonnement logique de la démarche scientifique.
- développer, par les probabilités et les statistiques, un esprit d'analyse critique, la maîtrise du raisonnement par hypothèse ainsi que la compréhension et l'interprétation d'un résultat statistique.

1.2. Intégrer les principales notions des sciences disciplinaires relatives aux espèces d'animaux de compagnie et d'animaux de production

- En morphologie, faire preuve d'une connaissance approfondie de l'anatomie normale, y compris de son aspect radiologique ; de l'histologie normale des tissus et des organes.
- En embryologie, connaître et comprendre les aspects importants en clinique du développement de l'embryon depuis la fécondation jusqu'à la naissance.
- En physiologie, décrire précisément le fonctionnement et la régulation des différents systèmes d'organes qui composent un animal, y compris le système immunitaire.
- En biochimie, identifier les composants biochimiques de la matière vivante ainsi que spécifier leurs voies de synthèse et de dégradation.
- Intégrer les exigences en termes de gestion, de nutrition, d'environnement et de besoins éthologiques des espèces d'animaux de compagnie et d'animaux de production dont il connaîtra les différentes races.
- Maîtriser également les bases de la génétique moléculaire et factorielle.
- Connaître les caractéristiques générales des principales familles d'agents pathogènes (bactéries, virus, parasites) et les grands principes de leur virulence, prophylaxie et thérapeutique comme prérequis à l'étude des maladies infectieuses étudiées en master.
- Prendre conscience des enjeux que pose la santé animale dans le cadre de la protection de la santé publique et de celle de l'environnement, se former à la démarche clinique du diagnostic.

2) Mobiliser les aptitudes méthodologiques exigées par le niveau universitaire du programme d'étude et le niveau de l'exercice de la profession de médecin vétérinaire

- Comprendre et intégrer un savoir avec rigueur, précision et analyse critique.
- Mesurer son niveau de maîtrise d'un sujet ou d'une matière et approfondir par lui-même un domaine abordé au cours du

- Décrire et appliquer rigoureusement les normes de sécurité et d'hygiène relatives à ces instruments et aux techniques d'analyse et de dissection.

5) Approcher et procéder aux manipulations de base des espèces d'animaux de compagnie et d'animaux de production.

- Maîtriser sans crainte l'abord et le contact physique avec l'animal domestique.
- Prodiguer les soins élémentaires (propreté et alimentation) et appliquer les normes d'hygiène adaptées à chaque espèce.
- Formuler des conseils généraux sur l'entretien et la gestion de ces espèces.
- Etre préparé à aborder efficacement en master la contention de l'animal malade et les soins à lui apporter.

6) Communiquer efficacement et convaincre

6.1 Communiquer en français, oralement ou par écrit :

- Exprimer poliment et précisément à différents types de personnes son opinion sur des sujets relevant de la vie courante, de la santé et de la gestion animales.
- Adapter son discours au niveau de connaissance de son interlocuteur, y compris à propos de sujets complexes relevant de son domaine de compétence.

6.2 Communiquer en anglais :

- Exploiter par lui-même des documents d'ordre général relatifs aux sciences de base et plus complexes et spécialisés en relation avec les matières disciplinaires (niveau C1 de l'échelle européenne CECRL).

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## Animal Biochemistry, Physiology and Histology

- Animal Biochemistry, Physiology and Histology (6 credits)
- Animal Biochemistry (2 credits)
- Physiology of Domestic Animals (13 credits)
- Special Histology and Domestic Animals (9 credits)
- Animal Cellular Biology (2 credits)

Biostatistics (8 credits)

Immunology (3 credits)

Microbiology (4 credits)

Ethology (4 credits)

Genetics (5 credits)

Ethnography (5 credits)

Integrated Seminars (2 credits)

Philosophy (2 credits)

Computing Science (2 credits)

English (6 credits)

Integrated practical work (5 credits)

**VETE1BA Programme**

## Detailed programme by subject

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- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1

2

3

### ○ Content:

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#### ○ Biologie (17 credits)





FR [q1+q2] [15h+45h] [5 Credits]

Year

1 2 3

### o Stage (2 credits)

○ LVETE1244	Initiation à la ruralité et stage d'immersion en milieu animalier	Isabelle Donnay	FR [q1 or q2] [50h] [2 Credits]			X
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### o Culture et esprit scientifique (3 credits)

○ LVETE1101	Introduction to public health and economy	Jean-Paul Dehoux François-Xavier Philippe	FR [q2] [30h] [3 Credits]		X	
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### o Biosécurité (2 credits)

○ LVETE1201	Biosecurity and good veterinary practices	Claude Saegerman	FR [q2] [2h+28h] [2 Credits]		X	
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### ⊗ Optional courses

*These credits are not counted within the 120 required credits.*

⊗ LSST1001	IngénieuxSud	Stéphanie Merle Jean-Pierre Raskin	FR [q1+q2] [15h+45h] [5 Credits]			
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## Course prerequisites

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The **table** below lists the activities (course units, or CUs) for which there are one or more prerequisites within the programme, i.e. the programme CU for which the learning outcomes must be certified and the corresponding credits awarded by the jury before registering for that CU.

These activities are also identified **in the detailed programme**: their title is followed by a yellow square.

### Prerequisites and student's annual programme

As the prerequisite is for CU registration purposes only, there are no prerequisites within a programme year. Prerequisites are defined between CUs of different years and therefore influence the order in which the student will be able to register for the programme's CUs.

In addition, when the jury validates a student's individual programme at the beginning of the year, it ensures its coherence, meaning that it may:

- require the student to combine registration in two separate CUs which it considers necessary from a pedagogical point of view.
- transform a prerequisite into a corequisite if the student is in the final year of a degree course.

For more information, please consult the [Academic Regulations and Procedures](#).

### # Prerequisites list

- LANG1863** "Anglais interactif pour étudiants en sciences (niveau intermédiaire+)" has prerequisite(s) LANG1861
- LANG1861 - English: reading and listening comprehension of scientific texts
- LBAL2102F** "Physiological and nutritional biochemistry : parts 1, 2 and 3" has prerequisite(s) LCHM1371V
- LCHM1371V - Metabolic biochemistry - courses and bibliographic work
- LVETE1295** "Compléments de biologie cellulaire animale" has prerequisite(s) LBIO1111
- LBIO1111 - Cell and molecular biology
- LVETE1300** "Integrated Seminars" has prerequisite(s) LANG1861
- LANG1861 - English: reading and listening comprehension of scientific texts
- LVETE1374** "Physiologie digestive et nutrition des animaux domestiques" has prerequisite(s) LCHM1371V
- LCHM1371V - Metabolic biochemistry - courses and bibliographic work
- LVETE1376** "Physiologie des animaux domestiques : physiologie cardio-vasculaire, rénale et respiratoire" has prerequisite(s) LVETE1296
- LVETE1296 - Neuromuscular physiology of domestic animals
- LVETE1390** "Histologie spéciale et des animaux domestiques" has prerequisite(s) LBIO1234
- LBIO1234 - Animal histology

## The programme's courses and learning outcomes

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For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

## Detailed programme per annual block

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## o Content:

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### o Biologie

LBIO1111	Cell and molecular biology	Patrick Dumont Charles Hachez	FC [q1] [30h +20h] [5 Credits]
LBIO1112	Organism biology : plants and animals	Muriel Quinet Jean-François Rees	FC [q2] [30h +20h] [5 Credits]
LVETE1111	Plant biology applied to breeding	Muriel Quinet	FC [q2] [22.5h +15h] [3 Credits]

### o Physique et mathématiques

LMAT1101	Mathematics 1	Pedro Dos Santos Santana Forte Vaz	FC [q1] [30h +20h] [4 Credits]
LPHY1101	Physics 1	Michel Crucifix Thierry Fichet	FC [q1] [30h +40h] [6 Credits]
LPHY1103	Additional physics	Gabriel Dias de Carvalho Junior Marco Drewes	FC [q2] [40h +10h] [4 Credits]

### o Chimie et biochimie

LCHM1111B	General chemistry	Benjamin Elias Alexandru Vlad	FC [q1] [45h +45h] [8 Credits]
LCHM1141A	Organic chemistry	Benjamin Elias Charles-André Fustin	FC [q2] [30h +20h] [5 Credits]


### o Anatomie et Embryologie

LVETE1141	Anatomy of domestic animals I	Ellen Rivas Leonel	FC [q1+q2] [45h +37.5h] [8 Credits]
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### o Philosophie, éthologie et éthique

LSC1120	Philosophy, ethology and ethics	Charles Pence	FC [q1] [60h] [4 Credits]
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o Culture et esprit scientifique

o LVETE1101	Introduction to public health and economy	Jean-Paul Dehoux François-Xavier Philippe	100 [q2] [30h] [3 Credits] 
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## VETE1BA - 2ND ANNUAL UNIT

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- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🌐 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

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Click on the course title to see detailed informations (objectives, methods, evaluation...)

### o Content:

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#### o Chimie et biochimie

● LCHM1271V	<a href="#">Elements of biochemistry</a>	Patrice Soumillion	(FR) [q1] [20h] [2 Credits] 🌐
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o Ethologie

o LVETE1230



## VETE1BA - 3RD ANNUAL UNIT

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- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

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Click on the course title to see detailed informations (objectives, methods, evaluation...)

### o Content:

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#### o Biologie

● LVETE1312	<a href="#">Ecologie appliquée aux animaux domestiques</a>	Jean-François Cabaraux	(FR) [q2] [30h +12h] [4 Credits] 🌐
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## VETE1BA - Information

### Access Requirements

Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.

The admission requirements must be met prior to enrolment in the University.

**In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.**

#### SUMMARY

- [General access requirements](#)
- [Specific access requirements](#)
- [Access based on validation of professional experience](#)
- [Special requirements to access some programmes](#)

### General access requirements

Except as otherwise provided by other specific legal provisions, admission to undergraduate courses leading to the award of a Bachelor's degree will be granted to students with one of the following qualifications :

1. A Certificate of Upper Secondary Education issued during or after the 1993-1994 academic year by an establishment offering full-time secondary education or an adult education centre in the French Community of Belgium and, as the case may be, approved if it was issued by an educational institution before 1 January 2008 or affixed with the seal of the French Community if it was issued after this date, or an equivalent certificate awarded by the Examination Board of the French Community during or after 1994;
2. A Certificate of Upper Secondary Education issued no later than the end of the 1992-1993 academic year, along with official documentation attesting to the student's ability to pursue higher education for students applying for a full-length undergraduate degree programme;
3. A diploma awarded by a higher education institution within the French Community that confers an academic degree issued under the above-mentioned Decree, or a diploma awarded by a university or institution dispensing full-time higher education in accordance with earlier legislation;
4. A higher education certificate or diploma awarded by an adult education centre;
5. A pass certificate for one of the [entrance examinations](#) organized by higher education institutions or by an examination board of the French Community; this document gives admission to studies in the sectors, fields or programmes indicated therein;
6. A diploma, certificate of studies or other qualification similar to those mentioned above, issued by the Flemish Community of Belgium, the German Community of Belgium or the Royal Military Academy;
7. A diploma, certificate of studies or other qualification obtained abroad and deemed equivalent to the first four mentioned above by virtue of a law, decree, European directive or international convention;

#### Note:

Requests for equivalence must be submitted to the Equivalence department ([Service des équivalences](#)) of the Ministry of Higher Education and Scientific Research of the French Community of Belgium in compliance with the official deadline.

The following two qualifications are automatically deemed equivalent to the Certificate of Upper Secondary Education (Certificat d'enseignement secondaire supérieur – CESS):

- European Baccalaureate issued by the Board of Governors of a European School,
- International Baccalaureate issued by the International Baccalaureate Office in Geneva.

8. Official documentation attesting to a student's ability to pursue higher education (diplôme d'aptitude à accéder à l'enseignement supérieur - DAES), issued by the Examination Board of the French Community.

### Specific access requirements

- Access to bachelor programmes for candidates of nationality outside the European Union who are not assimilated to Belgian nationals is subject to the following criteria:
  - not have obtained a secondary education diploma for more than 3 years maximum. Example: for an admission application for the academic year 2024-2025, you must have obtained your diploma during the academic years 2021-2022, 2022-2023 ou 2023-2024. In the French Community of Belgium, the academic year runs from September 14 to September 13
  - not already hold an undergraduate degree
- Candidates, whatever their nationality, with a secondary school diploma **from a country outside the European Union**, must have obtained an average of 13/20 minimum or, failing that, have obtained this average, have passed one year of study in Belgium (for example special Maths / sciences). A non-successful year will not be taken into consideration.





## Teaching method

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Des séances sont organisées au cours de la première année autour des questions de méthode de travail, par exemple la gestion du temps ou la manière d'aborder les différentes matières.

Outre des rapports à remettre ou des contrôles de connaissances au début de certaines séances de laboratoires, des interrogations obligatoires intervenant dans la note finale de chaque matière sont organisées après un mois de cours au premier quadrimestre.

Les exercices et laboratoires sont organisés en petits groupes et sont encadrés par des assistants. Les monitorats permettent à ceux qui le souhaitent de faire le point sur les matières vues au cours : les enseignants de chaque discipline répondent aux questions des étudiants et expliquent les points moins bien compris.

La plupart des enseignements disposent également d'un site internet ou est déposée une série d'informations utiles pour l'étude.

## Evaluation

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***The evaluation methods comply with the***

