

# Master of Biomedical Sciences

2025-2026



Developing **highly skilled scientists** to conduct research in the broad biomedical field, and supervise research in academic, clinical or commercial settings.



University  
of Antwerp

| Let's shape the future

# Table of contents

## Specialisation

### Infectious and Tropical Diseases

In detail	05
Programme structure	06
Testimonial	08

---

## Specialisation

### Neurosciences

In detail	13
Programme structure	14
Testimonial	16

---

## In General

Job opportunities	19
Why choose UAntwerp	20
Admission criteria	21
Application procedure	22
Application deadlines	22
ECTS credits	23

**Specialisation**

**Infectious and Tropical Diseases**



## In detail

In the Master of Biomedical Sciences: Infectious and Tropical Diseases, you **acquire a good understanding of various aspects of host-parasite interaction**. You learn to recognise patterns in the epidemiology of (tropical) diseases as well as to link them to ecological conditions. This way you learn to evaluate or propose strategies for disease control.

The programme does not focus on acquiring clinical skills, as this is covered in medicine and pharmacy. However, it prepares you to **conduct technological or scientific research in a clinical context**. You learn to describe and analyse a tropical, biomedical, scientific problem independently, to report on it and to propose solutions. This may contribute to product development in the pharmaceutical and biotech industry, for example vaccine research, drug screening and diagnostics.

During the second and third semester you can **obtain a Laboratory Animal Science certificate (FELASA C)** allowing you to perform or participate in animal experiments. The Project proposal and the Master's thesis with Internship last 6 months and offer you the opportunity to **participate in research projects in leading laboratories and institutes** in Belgium or abroad.



*I feel that now I have a new and broader view about what studying infectious and tropical diseases is.*

Anniuska, Peru

## Programme structure

The **two-year study programme** comprises a total of 120 ECTS credits. Courses and research take place over four semesters.

### Curriculum

#### Year 1

Compulsory courses	ECTS credits 24
Bio-ethics	3
Concepts of Protein Technology and Applications	3
Data Mining	3
Genome Technology and Applications	3
Laboratory Animal Science (core module)	6
Preclinical Drug Research	6

---

Major (compulsory) courses	ECTS credits 36
Ecology, Epidemiology and Control of Infectious Diseases	6
Human Parasites, Micro-organisms and Zoonoses	6
Integrated Infectious and Tropical Disease Practicals	3
Immunology of Tropical Infectious Diseases	6
Molecular Bacteriology of Infectious Diseases	3
Pathogenesis and Clinical Aspects of Tropical Infectious Diseases	6
Molecular Virology and Infections	3
Novel Vaccine Technologies and Applications	3



*I'm really  
amazed about all  
that I've learned  
in this past year.*

Anniuska, Peru

**Year 2****Compulsory courses****ECTS credits 46**

Patents and Innovation	4
Project Proposal with Internship and Project Management	12
Master's thesis with Internship	30

---

**Major (compulsory) courses****ECTS credits 6**

Health Economics and	
Mathematical Models of Infectious Diseases	3
Molecular Epidemiology of Infectious Diseases	3

---

**Optional courses with focus on research****To choose from****ECTS credits 8**

Advanced Molecular Neurosciences	4
Academic English	4
Laboratory Animal Science - Fish	4
Laboratory Animal Science - Rodents	4
Quality Management and GLP	4
Summer School - Course at Foreign Institution	4
Preparedness and Rapid Response	4
Entomology of Vector-Borne Diseases	4
Massive Open Online Course (MOOC)	4

---

**Total****ECTS credits 120**



## Testimonial

### **Why did you decide to study at the University of Antwerp?**

I was looking for a programme that offers a specialisation in infectious diseases and tropical medicine. Because I am originally from Germany, I first checked in my own country and then expanded my search to other European countries.

I checked the academic programme of the Master of Biomedical Sciences: Infectious and Tropical Diseases and I found it much more interesting compared to other programmes as it also offers courses on broader subject areas such as public health, healthcare, statistics, epidemiology, and so on. Moreover, the Institute of Tropical Medicine in Antwerp also offers a lot of research opportunities, which makes an additional asset.

### **First moments in Antwerp**

I think moving to Belgium went reasonably well. The teaching language of my Master programme is English, so there was no language course necessary to catch up. As for finding housing, I had some help from the International Housing Office. They suggested a couple of places where I could find accommodation. When it comes to integration I should explain that it was the second time abroad for me so it was not a priority to have a real contact or experience with locals. I just wanted to meet new people, so I preferred accommodation with people from different backgrounds.



### **A programme designed for international and Belgian students**

The professors at my faculty are all very well prepared to teach international students, which is a must as the programme targets an international audience. Almost half of my fellow students are international students and all courses are taught in English.

### **Academic programme**

I think the course selection is very well done and you learn a lot but it's quite theoretical. For me this was ok because I wanted a specialisation in knowledge, not in practical experience because I already have that. For students wanting to learn skills this Master programme might be less suitable. The focus of the programme is on research and you need to have a good basis to keep up.

### **Before the start of the academic year**

I would advise students to travel to Antwerp a couple of weeks before the start of the academic year. This allows you to do a language course or other activities and to get involved in the cultural life more easily. Also the weather during the summer is nice and there are a lot of summer activities in Antwerp so it's a good time to get to know new people. Students should also be aware that the cost of living might be higher to what they are used to in their home country.

**Julia Port, alumna Master of Biomedical Sciences:  
Infectious and Tropical Diseases**





*Moving abroad  
is always  
challenging  
and I'm glad  
that I chose  
the University  
of Antwerp  
as everyone  
has been so  
welcoming and  
supportive.*

## Specialisation Neurosciences



## In detail

In the Master of Biomedical Sciences: Neurosciences you **study the underlying neuronal structures and mechanisms of behaviour and memory** as well as the diagnosis, appearance and pathogenesis of various neurological and psychiatric disorders.

The programme does not focus on acquiring clinical skills, as this aspect is covered in medicine and pharmacy. However, it prepares you to **conduct technological or scientific research in a clinical context**. Depending on your research question, you will make use of behaviour observation, neurochemical, molecular biological, electro-physiological and microscopic techniques, or imaging techniques, which reveal the living brain and its functions in a non-invasive way.

Through **collaboration with internationally recognised institutes and research clusters** like the VIB-UAntwerp Centre for Molecular Neurology and the Institute Born Bunge, the University of Antwerp is able to offer you a state-of-the-art Master's degree.

During the second and third semester you can **obtain a Laboratory Animal Science certificate (FELASA C)** allowing you to perform or participate in animal experiments. The Project Proposal and the Master's thesis with Internship last 6 months and offer you the opportunity to **participate in research projects in leading laboratories and institutes** in Belgium or abroad.

## Programme structure

The **two-year study programme** comprises a total of 120 ECTS credits. Courses and research take place over four semesters.

### Curriculum

#### Year 1

Compulsory courses	ECTS credits 24
Bio-ethics	3
Concepts of Protein Technology and Applications	3
Data Mining	3
Genome Technology and Applications	3
Laboratory Animal Science (core module)	6
Preclinical Drug Research	6

---

Major (compulsory) courses	ECTS credits 36
Behavioural and Cognitive Neuroscience	6
Cellular and Molecular Neuroscience	6
Computational Neuroscience and Neuroinformatics	6
Integrated Neurosciences Practicals	3
Neurogenetics	3
Preclinical and Clinical Imaging with Focus on Neurology	6
System Neuroscience	6

## Year 2

### Compulsory courses

**ECTS credits 46**

Patents and Innovation	4
Project Proposal with Internship and Project Management	12
Master's thesis with Internship	30

---

### Major (compulsory) courses

**ECTS credits 6**

Molecular Neuropathology

---

### Optional courses with focus on research

#### To choose from

**8 ECTS credits**

Advanced Molecular Neurosciences	4
Academic English	4
Laboratory Animal Science - Fish	4
Laboratory Animal Science - Rodents	4
Quality Management and GLP	4
Summer School - Course at Foreign Institution	4
Translational Neuroscience	4
Massive Open Online Course (MOOC)	4

---

### Total

**ECTS credits 120**



## Testimonial

### **Who are you?**

My name is Andrea. I'm originally from Ecuador. I am currently doing my Master's in Neurosciences at the University of Antwerp. Previously I did a Bachelor in Medicine, and for one year I worked as a general practitioner.

### **Why did you choose to do your Master's abroad?**

I've always been interested in research. Especially during and after COVID. In Ecuador there are not many opportunities to do neuroscience research. We don't have the tools and resources yet. I looked into different Master's in Europe. The University of Antwerp had a very nice program and I really liked the courses. So, I decided to apply at UAntwerp.

### **What Master thesis are you working on right now?**

I'm currently working on functional MRI, functional images of the brain. I'm trying to look for novel biomarkers for Alzheimer's disease.

### **Why did you choose this subject?**

I've always been interested in neurodegeneration, particularly Alzheimer's. So, it seemed like a good idea to combine neuroimaging to look for biomarkers. It's very new and I'm very interested in it.

### **Why did you choose this lab?**

There are different imaging labs here at the University of Antwerp. I chose this particular lab because they do MRIs on humans. Other labs work with small animal model MRIs. So, I chose this lab because they are working with human data. That is also one of my interests, to try to implement this research clinically.

**Is there a big difference between universities in Ecuador and in Belgium?**

In Belgium, universities have much more resources. For example, infrastructure, labs are much more developed here. I think that's one of the biggest differences. Also, academically, here at the University of Antwerp the courses are very general at first, which I really like because you learn the basics of whatever topic you're doing future research on. It's very interesting for me to see the differences.

**Did you get help from the university and the faculty?**

Yes, definitely. Especially at first. I think this applies to every international student that goes to another country. You don't know the rules. You don't know what you have to do. In the first month the university organized different sessions where we could learn for example about health insurance or how to do the paperwork and the residence permit. I think that it's very important that the university has helpdesks. If you have a question, you can ask them. I think it's important to have that support, especially if you're coming from far away.

**What are your plans for the future?**

Because I'm finishing my Master's now, I've applied for different Ph.D. positions. I had an interview for one of them and I'll be starting my Ph.D. in September.

**Andrea Estevez,**  
alumna Master of Biomedical Sciences; Neurosciences

## In General



## Job opportunities

A Master's degree in Biomedical Sciences offers you many **career opportunities**. About 30% of graduates find PhD positions at one of the participating research institutes in Antwerp or abroad. Some graduates have been selected for prestigious PhD programmes at leading schools in Europe and the US.

In general, as a graduate **you will work in/as:**

- **Fundamental research** in the various areas of infectious and tropical diseases, epidemiology and drug research at universities and research institutes;

- **Research and development** in the pharmaceutical industry;

- **Policy and management positions** in science, industry and the healthcare sector;

- **Clinical Research Associate** in hospitals or other clinical settings

### Orientation year

After completing your studies you can choose to look for work opportunities in Belgium. You can apply for an orientation year and extend your stay in Belgium by 12 months. Guidance and administrative assistance with this process is available through the university.

## Why choose UAntwerp

Our university is located in the **city of Antwerp**, in the heart of Belgium and Europe. The port of Antwerp is one of the biggest in the world. Antwerp is not just an ancient medieval and baroque city, full of history. It is also a bustling metropolis with a vibrant social scene, impressive architecture and cultural contrasts. Over 170 nationalities live here, more than in New York! This cosmopolitan vibe is also reflected at the University of Antwerp. English is widely spoken in Antwerp, though if you learn Dutch during your stay here you will become a local in no time.

**First-rate research and education** make the University of Antwerp a wonderful place to study and to work. We foster the nexus between research and education. Internationalisation is key to our mission. It is no coincidence that the University of Antwerp is a partner in a highly promising European university network, the Young Universities for the Future of Europe [www.YUFE.eu](http://www.YUFE.eu).

As home away from home to over **20,000 students**, the University of Antwerp prides itself on operating on a human scale. Our faculty and staff will welcome you into top-notch infrastructure on one of our four campuses. While you're here you are also invited to enjoy our vibrant cultural programme, sports facilities and many student services.

The University of Antwerp **scores extremely well** in Young University Rankings



## Admission criteria

To start in the Master of Biomedical Sciences you need to have obtained a **Bachelor of Science** (minimum 180 ECTS credits) **in the field of life sciences** with a strong focus on biomedical sciences, and proven knowledge of **Anatomy, Physiology and Cell Biology**.

For Infectious and Tropical Diseases, also basic knowledge of Microbiology, Immunology and Epidemiology is required.

For Neurosciences, basic knowledge of Neuroanatomy, Neurophysiology and Neurochemistry is also required.

If your degree was not issued by a recognised educational institution in Belgium or the Netherlands, you will also have to provide evidence of your level of English.

You can do this in **two ways**:

- by proving that you took **classes in English** for at least one academic year during your Bachelor or Master degree. The selection committee may require additional proof of your command of English.
- by submitting one the following language **certificates**:
  - **TOEFL** (paper-based): minimum 550
  - **TOEFL** (internet-based): minimum 80
  - **IELTS**: minimum total score of 6.5 and minimum score of 6.0 for each individual component
  - **Cambridge English** test results: minimum B2 First with a score of at least 176.

Results obtained on other language tests will not be accepted.

## Application procedure

Candidates with a Bachelor's or Master's degree from a higher education institution in Belgium, the Netherlands or Luxembourg can directly enrol into the programme.

Candidates who do not fulfil this condition or who need a student visa must submit an online application through the **Mobility Online** tool.

Applications files for the academic year 2025-2026 can be started in Mobility Online from early November 2024 onwards.

For the specific selection procedure of the Master of Biomedical Sciences, please **consult the faculty pages** on the website.

### Application deadlines

To submit an application through Mobility Online

For non-EEA \* nationals and for students who need a visa: **before 1 March 2025**

For EEA nationals: **before 1 June 2025**

\* EEA = European Economic Area

#### Member states:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden

### Enrolment deadline

Early October

Enrolments start on 1 July 2025.

The academic year 2025-2026 starts on Monday 22 September 2025.

## ECTS credits

The University of Antwerp applies the '**European Credit Transfer and Accumulation System**' (ECTS) in all its degree programmes.

A full-time one-year study programme amounts to **60 ECTS credits** (30 ECTS credits per semester), which implies a student workload of about 1500 to 1800 hours. One ECTS credit stands for 25 to 30 hours of work including contact hours, preparatory work, study and assessment.



# Quick facts

## Level

Master

## Language

English

## Credits

120 ECTS credits

## Number of years

2

## Tuition fee per year \*

EUR 1157 for EEA nationals

EUR 5800 for non-EEA nationals

## Campus

Campus Drie Eiken

## Faculty

Pharmaceutical, Biomedical and  
Veterinary Sciences

## More information

[www.uantwerpen.be/  
infectious-tropical-diseases](http://www.uantwerpen.be/infectious-tropical-diseases)



## More information

[www.uantwerpen.be/  
neurosciences](http://www.uantwerpen.be/neurosciences)



\* subject to yearly revision

# Contact

## Master of Biomedical Sciences:

Miep Demuynck, Staff member  
communication and internationalisation  
[miep.demuynck@uantwerp.be](mailto:miep.demuynck@uantwerp.be)

## International Students Office

[internationalstudents@uantwerp.be](mailto:internationalstudents@uantwerp.be)

T: +32 3 265 31 89

[www.uantwerp.be](http://www.uantwerp.be)

# Follow us!

 Facebook

 Instagram

 LinkedIn

 Blog FBD

This brochure was published in September 2024.  
As all information is subject to change,  
please check our website for the latest updates.