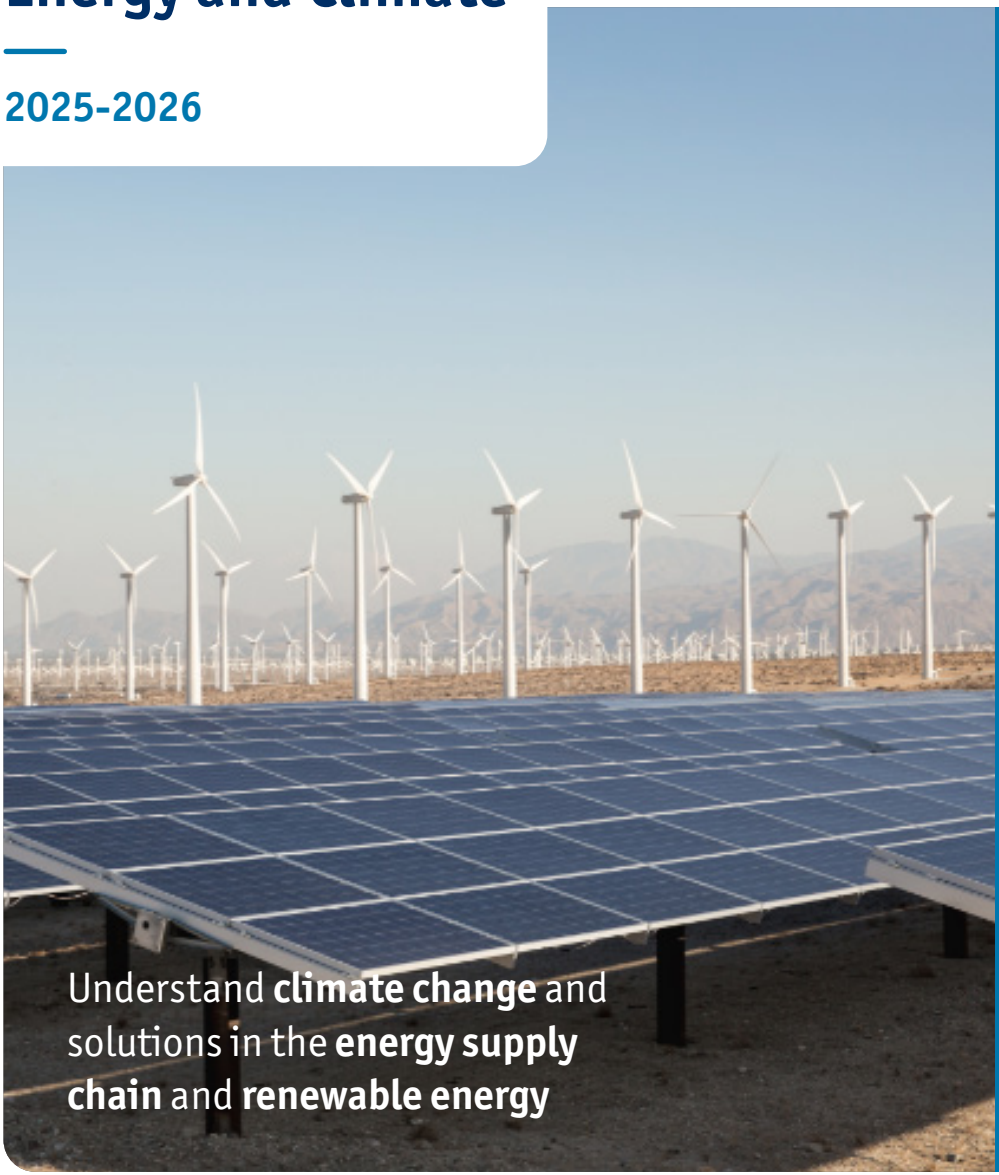
# Postgraduate of Energy and Climate

## 2025-2026




University of Antwerp

Let's shape the future

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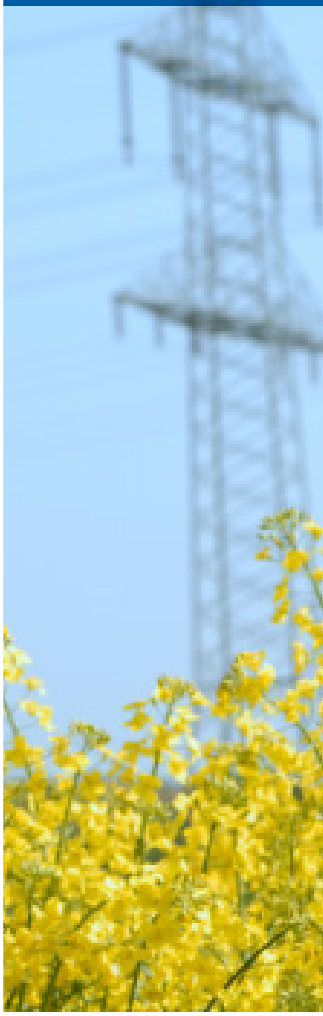


**Energy and climate will be on top of the business and political agenda for decades to come, so it's a very wise choice to learn more about these topics.**

## In brief

The programme is designed to equip you with the **skills to understand** the state-of-the-art on energy and climate issues and the ongoing policies and regulations debate.

The programme aims to improve the understanding of concepts and systems and enhances knowledge regarding **tools** and **technologies**. This will enable innovative planning and action from a new perspective and approach.

Following a postgraduate programme is not the same as studying a Bachelor's or Master's degree. The Postgraduate of Energy and Climate aims at widening and/or deepening the competences acquired during your Bachelor's or Master's degree.

After completing the postgraduate programme you will receive a **certificate** rather than a degree. This certificate will give your CV **added value** on the labour market.

# In detail

The programme is taught in English and consists of five course modules **focusing on specific topics**:

- Climate change: the physical basis
- Climate change as a societal challenge
- Energy use and efficiency options
- Renewable energy
- Sectors: mitigation options - transition trajectories

Lectures are held **one day a week** in the afternoon and evening to accommodate professionals who combine work and education. Since **interaction** and **discussions** are an essential part of the programme, all lectures are organised **on campus**. This also allows students to expand their network.

The **teaching staff** include academics from the University of Antwerp, other universities, scientific institutions, the European Commission, governmental organisations and specialists from different industries and companies.

**Course materials** span from basic definitions to practice and latest developments, from local problems to global solutions, and vice versa. Theories are illustrated and case studies refer to real-world solutions.

Expect **intense involvement and interaction**, requiring dedicated effort from you and from the lecturers.

*Putting the acquired knowledge into practice through my three-month internship was a very enriching. experience.*

# Programme structure

The postgraduate programme consists of **five modules**. Each module counts for 6 ECTS credits and can also be followed separately. The first two modules focus on climate change and its challenges. Energy is the focus of modules three and four. The fifth module can be seen as the applied module where the different insights from the previous modules are used to reflect on activities in the major sectoral domains.

Here is a brief introduction to **each module**.

**Module 1:**
**Climate change: the physical basis**
In this module, you will be immersed in the physical science of climate change, with a strong focus on interaction effects between climate and the biosphere.

You will learn about past and present climate change, how this impacts natural ecosystems and biodiversity, and what to expect in the future. Extreme weather events, for example, are already on the rise and this has consequences for many aspects of our society. Several lectures look into options for climate change mitigation and adaptation, with a strong focus on nature-based solutions.

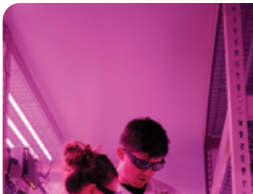
At the end of this module, you will be able to understand key scientific principles about climate change and you will have a broad idea of what is needed to limit climate change and reduce its impact.

**Module 2:**
**Climate change as a societal challenge**
Climate change is to a large extent driven by societal factors (causes). It has an impact on people's lives (effects). And it is influenced by decisions taken every day by individuals, companies, local communities, national governments and international institutions (responses).

Due to the close connections between our natural and societal systems, this module focuses on the societal challenges of climate change.

This module will help you to see climate change as a multi-actor and multi-level governance problem, where we have to learn and deal with scientific uncertainties, institutional inertia and various societal stakes.

**Module 3:**
**Energy use and efficiency options**
To get a good grip on both the opportunities to save energy and to understand the boundaries and difficulties to put them in practice, this module will approach the challenges both from a holistic top-down approach as from a bottom-up, more measure-based and practical approach.
You will learn what energy is as energy exists in many forms.



At the end of this module you understand both the technicalities about the energy supply chain and the contextual boundaries given by the legal, political and economic background of the energy market. This will enable you to put the first step of the trias energetica, the way towards a sustainable supply chain, into practice.

**Module 4:**
**Renewable energy**
This module provides you with insights into European and Flemish policies intended to promote renewable energy investments, and focuses on the performance of specific policy instruments.

Specialists teach the essentials and latest developments in wind power, solar power and heat, hydro and geothermal energy, biomass, biofuels and energy crops.
You will get to know the practice of renewable energy deployment, approached from a bottom-up, distributed and small-scale development.

**Module 5:**
**Sectors: mitigation options – transition trajectories**
This module deals with the mitigation options and the transition trajectories of the major (industrial) sectors. You gain insights from academics and several experts from different industries and sectors. This module also zooms in on climate issues of the agrobusiness and food industry, including climate smart agriculture. Experts from steel and chemical industries explain their ongoing projects and ambitions to achieve the climate goals.

You study mitigation options in the most relevant sectors (transport, buildings, industry and agriculture) and you explore the challenges of finding the most appropriate transition towards a low-carbon economy.

## Curriculum

| **Compulsory modules** | **ECTS credits 30** |
|---|---|
| Climate Change: the physical basis | 6 |
| Climate Change as a Societal Challenge | 6 |
| Energy Use and Efficiency Options | 6 |
| Renewable Energy | 6 |
| Sectors: mitigation options - transition trajectories | 6 |
| **Total** | **ECTS credits 30** |

Non-EEA students can/should add a paper of 6 ECTS credits and/or an applied project of 24 ECTS credits to the full course.

| **Additional options for non-EEA students** | |
|---|---|
| Advanced scientific paper | 6 |
| Applied project | 24 |
| **Total** | **ECTS credits 60** |

*The tutors pay a lot of attention to individual students and provide scientific literature for a more comprehensive understanding of the subjects.*

# 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.

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

# Testimonial

In my former job at PwC Sustainability we were encouraged to continue studying relevant topics in our daily work. The Postgraduate of Energy and Climate to me was both interesting content-wise and interesting for the work I did for clients in the broad area of sustainability.

The course is very broad. A great variety of aspects surrounding the topic are covered from both a theoretical perspective as from a perspective of business.

Following this programme certainly influenced my career path with my former employer PwC, as it turned out I was elected Member of the European Parliament during the programme. Since my portfolio contains energy, climate, mobility and innovation, I make daily use of the knowledge and concrete examples that were brought forward during the programme.

The theory, concrete examples and the discussion among students from different kind of cultural and professional backgrounds were the most valuable things I take with me. I believe continuous education is essential in a continuously changing world. Energy and Climate will be on top of the business and political agenda for decades to come, so it's a very wise choice to learn more about these topics and take this knowledge with you on the next steps in your journey.

**Tom Berendsen**
**Member of European Parliamant**

## Testimonial

I completed my Master's degree in Business Engineering in 2019 and since then I have been doing a PhD on the economic impacts of climate change in the European agricultural sector. I enrolled in the Postgraduate Energy & Climate, both because I felt that it was necessary to understand the science behind and consequences of climate change for my own research, and out of a personal interest for the energy transition. Because the classes take place only half a day per week, it was possible to combine the course with my own research activities.

And I have to admit, I have not been disappointed! The postgraduate is very different from what I experienced as a Bachelor or Master student. Firstly, every class is taught by a different speaker, either academic or from the industry, specially chosen for their expertise on the topic. This results in both motivated speakers and students. In every class there is an element of surprise to look forward to. Also, the organisation of the course into six-week modules followed by an exam means that there are short-term goals to work towards and that the study material is manageable.

Lastly, the postgraduate is just incredibly interesting and relevant for today's world. Even though the focus of the postgraduate is on climate change and energy, the topics are treated from very different angles: ranging from the history and science behind climate change, over societal and policy-making issues, to technical assessments of the potential for energy efficiency options and renewable energy. There is truly something for everyone.

**Charlotte Fabri,**
**PhD researcher**

# Admission criteria

Applicants must have a university or college Bachelor's or Master's degree of at least three years of full-time study.

Proof of proficiency in English has to be presented upon application. **Applicants can prove their proficiency in English:**

- Either by **submitting proof** they have studied at least one academic year (or 60 ECTS credits) in an English-language Master's programme
- Or by **submitting** one of the following **language certificate**s with a test validity of maximum 2 years:
  - **TOEFL** iBT (Test of English as a Foreign Language - taken at a test centre - home editions are not accepted): a minimum score of 80
  - **IELTS** (International English Language Testing System): a minimum score of at least 6.5, and on each part minimum 6.0.
  - Or **knowledge level B2** of the Common European Framework.

Native English speakers and candidates holding a degree issued by a recognised educational institution in Belgium, the Netherlands and Luxemburg are exempt from the English language test.

# Application procedure

Applications are made directly to the organising institute, IMDO. Please check the application procedure on the programme's website (www.uantwerpen.be/postgraduate-energy-climate).

As a first step, the programme's **Board of Admission** will review your grades, your education history and your motivation.

**Application deadlines**
To submit an application through Mobility Online

- For non-EEA * nationals: **before 1 March 2025**
- For EEA nationals: **before 1 September 2025**

**Enrolment deadline**
9 september 2025
Enrolments start on 1 July 2025.

The academic year 2025-2026 starts on Wednesday 11 September 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, Luxemburg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden

# ECTS credits

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

One ECTS credit stands for 25 to 30 hours of work including contact hours, preparatory work, study and assessment. A study programme of 30 ECTS credits or example implies a student workload of about 750 to 900 hours.

# Quick facts

**Level**
Postgraduate

**Language**
English

**Credits**
30 ECTS credits

**Number of years**
1

**Tuition fee per year ***
EUR 3900 for the full course
EUR 890 for one module

**Campus**
Campus Middelheim

**Faculty**
Science
Institute of Environment & Sustainable Development (IMDO)

**More information**
www.uantwerpen.be/postgraduate-energy-climate

* subject to yearly revision

# Contact

**Postgraduate of Energy and Climate**
Leen Herrijgers, Programme coordinator
leen.herrijgers@uantwerpen.be

**International Students Office**
internationalstudents@uantwerp.be
T: +32 3 265 31 89
www.uantwerp.be

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This brochure was published in September 2024.
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