

# International Bachelor Semester Climate Change and Climate Adaptation

Winter term 2026/2027



Dear students,

In the winter term 2026/27, from **October 2026 until February 2027**, Weihenstephan-Triesdorf University of Applied Sciences (HSWT) in Germany invites you to join our English-taught study semester "**Climate Change and Climate Adaptation**".

Guided by HSWT's experienced teaching staff, you will get an interdisciplinary insight in the global climate system as well as the processes and interactions between living and non-living environments on our planet. You will learn to develop climate strategies and solutions with which climate neutrality can be achieved in the future. By employing teaching methods such as seminars and project work, students are given the opportunity to develop their personal as well as professional skills. Studying at our Green Campus will be an exciting learning and cultural experience.

### **Participation Requirements**

- » Enrollment in a relevant field of study (e.g. Landscape Architecture, Environmental Engineering, Agriculture, Forestry or other related fields) in a university outside of Germany
- » Undergraduate students 2nd year or advanced
- » Interest in environmental and climate change topics
- » English language proficiency of at least level B1 (CEFR)

### **How to apply**

- If your university and HSWT have a cooperation agreement (e.g. Erasmus+ or SEMP) please ask your department coordinator or International Office to nominate you for the semester (**by 15<sup>th</sup> May 2026**). Once we have received your nomination, we will send you a link to our online application form and provide you with further information regarding the admission and enrollment procedures.
- If there is no agreement in place, you may study with us as a Freemover. In this case, please send an e-mail to the [International Office](#) at HSWT **by 15<sup>th</sup> May 2026**.

During the online application, you will be asked to upload the following documents:

- » CV
- » Transcript of Records
- » University Entrance Certificate (e.g. High-School Diploma)
- » Motivation Letter
- » Proof of Language (English)
- » Scan of personal ID or passport

In addition, a Learning Agreement with your course choice will have to be filled.

### **Fees**

HSWT does not charge any tuition fees. A semester fee of approx. 90 Euro has to be paid upon enrollment.

### **Accommodation**

There are various student residences and private rooms for rent. The International Office at HSWT will assist students in finding accommodation. The rental rate per month will be approximately 400-650 Euro.

We look forward to welcoming you at HSWT!

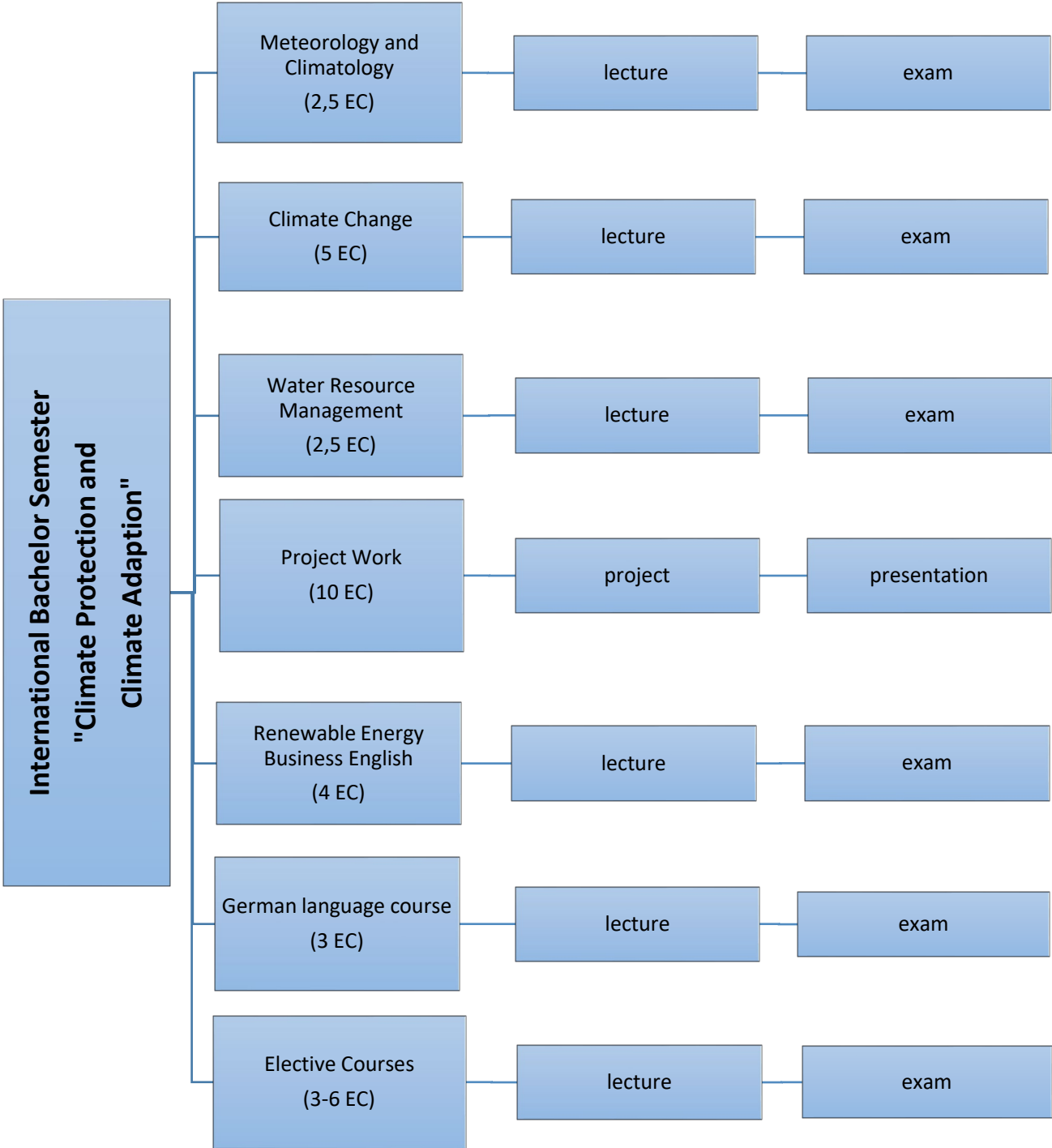
**Contact for questions:**

**Ms Julia Daschner**  
International Office  
Incoming Coordinator

[exchange-studies@hswt.de](mailto:exchange-studies@hswt.de)

[www.hswt.de/exchange](http://www.hswt.de/exchange)

# Curriculum Overview



**Please note:** The courses are part of the bachelor degree programme “Climate Change and Climate Adaptation”. Courses will be offered **on campus** with student presence required. Course offerings may be subject to change; additional courses online and on campus may be offered. You can also take courses offered in German. If you are interested we are happy to advise you.

# Course descriptions

## Meteorology and Climatology (258241010A)

<b>Hours/week:</b> 2 SWS	<b>ECTS-credits:</b> 2,5	<b>Recommended prerequisites:</b> none required	<b>Lecturer:</b> Prof. Dr. Kristian Förster
<p><b>Objectives of the course</b></p> <p>The aim of this course is to impart basic knowledge about weather, climate and atmospheric phenomena. Upon successful completion, students will be able to describe the composition and properties of the atmosphere, distinguish between different weather situations and solve problems relating to atmospheric variables and processes. This also includes a brief overview of the instruments used in the atmospheric sciences.</p> <p><b>Learning outcome:</b></p> <ul style="list-style-type: none"> <li>• Introduction to weather, climate and the atmosphere</li> <li>• Basic physical laws of the atmosphere and basic quantities (temperature, pressure, wind and humidity)</li> <li>• Atmospheric processes and their interaction: e.g. radiation, thermodynamics including adiabatic processes, general circulation, cloud microphysics / precipitation formation</li> <li>• Instruments for measuring meteorological quantities</li> <li>• The climate of the past, climate variability and climate change</li> </ul>			
Assessment methods: written exam, 45 minutes			

## Climate Change (258241020)

<b>Hours/week:</b> 4 SWS	<b>ECTS-credits:</b> 5	<b>Recommended prerequisites:</b> none required	<b>Lecturer:</b> Prof. Dr. Matthias Drösler
<p><b>Objectives of the course/Learning outcome:</b></p> <ul style="list-style-type: none"> <li>• Ability to understand climate change processes and drivers</li> <li>• Knowledge about key findings and dynamics of climate change: observation</li> <li>• Ability to differentiate between global and regional climate change dynamics and effects: scaling</li> <li>• Knowledge about databases and models of climate change: scenarios and prognostics</li> <li>• Ability to differentiate between trends and extremes</li> <li>• Ability to critically read and assess original literature about climate change</li> </ul> <p><b>Learning Outcomes:</b></p> <ul style="list-style-type: none"> <li>• Overall: comparison between global and regional approaches and findings</li> <li>• Observations: atmosphere and surface; ocean; cryosphere</li> <li>• Carbon and other biogeochemical cycles</li> <li>• Clouds and aerosols</li> <li>• Anthropogenic and natural radiative forcing</li> <li>• Evaluation of climate models</li> <li>• Detection and attribution of climate change: from global to regional</li> <li>• Short-term and long-term climate change: projections, predictability, commitments and irreversibility</li> <li>• Sea-level change</li> <li>• Climate phenomena</li> <li>• Fire and climate change, Extreme events</li> <li>• Interlinkages between desertification, land degradation, food security and greenhouse gas fluxes: synergies, trade-offs and integrated response options</li> <li>• Impacts of 1.5°C global warming on natural and human systems</li> </ul>			
Assessment methods: written exam, 90 minutes			

## Water Resources Management I (258243110A)

<b>Hours/week:</b> 2 SWS	<b>ECTS-credits:</b> 2,5	<b>Recommended prerequisites:</b> none required	<b>Lecturer:</b> Prof. Dr. Kristian Förster
<b>Objectives of the course:</b> This course aims at equipping students with essential skills and knowledge in Water Resources Management: <ul style="list-style-type: none"><li>• Working with hydrological data, including time series and flow duration curves (using “Python”)</li><li>• Applying simple approaches to compute runoff</li><li>• Understanding flood retention strategies</li><li>• Managing reservoirs for water supply</li></ul> By the end of the course, students will be proficient in analyzing hydrological data, computing runoff, and implementing effective water management practices.			
<b>Learning outcome:</b>  Students <ul style="list-style-type: none"><li>• are able to work with different types of data in hydrology</li><li>• know basic calculations in water resources management</li><li>• are familiar with different types of reservoirs (flood retention, water supply) and their design.</li></ul>			
Assessment methods: <a href="#">written exam (45 minutes)</a> or <a href="#">oral exam</a>			

## Project work: Environmental friendly location of renewable energy projects (pv and wind turbin) (258243250)

<b>Hours/week:</b> 5 SWS	<b>ECTS-credits:</b> 10	<b>Recommended prerequisites:</b> none required	<b>Lecturer:</b> Prof. Dr. Markus Reinke
<p><b>Objectives of the course:</b></p> <p><u>Expertise:</u> Students learn about the natural and landscape-ecological starting conditions for study areas on a communal scale. In accordance with nature conservation laws and the Environmental Impact Assessment Act, analyses of protected assets are carried out in order to analyse and evaluate climate-relevant aspects such as soil and groundwater conditions, aeration conditions, cold and fresh air formation and thus to develop the data basis for climate protection and climate adaptation concepts.</p> <p><u>Competence to act:</u> By working on selected study areas, data bases on natural parameters are analysed and their GIS processing is carried out. This also involves the practical application of various course contents that were dealt with in the first two semesters in the form of SU and seminars.</p> <p><u>Social skills:</u> The project work is carried out in groups. This trains communication and co-operation skills.</p> <p><u>Methodological competence:</u> The results of the project work are presented at the end of the course and analysed in a scientific project report (text and GIS-supported cartography). As a result, students acquire the ability to work in a structured and scientific manner as well as presentation skills.</p> <p><b>Learning outcome:</b></p> <ul style="list-style-type: none"> <li>• Structure and content of spatial data bases on protected assets in nature and landscape</li> <li>• Assessment methods for protected property analysis and assessments</li> <li>• Identification of factors influencing the climatic characteristics of urban settlement areas and factors that influence and relieve pressure</li> <li>• Practical application of the GIS skills from the first two semesters</li> </ul>			
Assessment methods: <a href="#">Project work</a>			

## Renewable Energy Business English and Presentation Skills (234223050)

<b>Hours/week:</b> 5 SWS	<b>ECTS-credits:</b> 4	<b>Recommended prerequisites:</b> <a href="#">English knowledge B2 GER UNiCertII</a> or other accepted language certificate	<b>Lecturer:</b> Prof. Dr. Tanja Barton
<p><b>Objectives of the course/ Learning outcome:</b></p> <p><b>RE Business Communication</b></p> <p>At the end of this course, the students shall be ready to...</p> <ul style="list-style-type: none"> <li>• Apply and communicate professionally for and in an RE Job</li> <li>• Communicate effectively with different (RE) Stakeholders knowing their different interests</li> <li>• Know the elements and techniques of a good Pitch and Discussion</li> <li>• Be intercultural competent in RE Business Communication</li> <li>• Know different topical Issues related to RE and Climate Protection</li> </ul> <p><b>Presentation Skills</b></p> <p>At the end of this course, the students shall...</p> <ul style="list-style-type: none"> <li>• Know what makes a presentation effective</li> <li>• Be able to deliver professional presentations due to many practical exercises</li> <li>• Present in more professional English (as non-native speakers) in groups</li> </ul>			
Assessment methods: <a href="#">written and oral exam</a>			

## German as a Foreign - Language Basic 1 (980400030)

Hours/week: 2 SWS	ECTS-credits: 3	Recommended prerequisites:	Lecturer: N.N.
<i>(For students with prior German knowledge, advanced courses are available)</i>			
<b>Objectives of the course/Learning outcome:</b>			
<ul style="list-style-type: none"> <li>• The ability to cope with some simple everyday situations in the foreign language in written and spoken forms of communication as well as to give simple information about studies, university and career wishes.</li> <li>• The ability to perceive cultural differences and to comment on them in simple statements.</li> <li>• Development of learning strategies that serve the further development of the students' language skills.</li> </ul>			
<b>Course content:</b>			
<ul style="list-style-type: none"> <li>• Acquisition and practice of basic language skills (listening comprehension, reading comprehension, speaking, writing, grammar, vocabulary)</li> <li>• Study of areas of practical everyday life and regional studies topics, e.g. simple, short reading and listening texts as well as audiovisual material such as city maps, room reservations, travel descriptions, etc; role playing such as simple interviews or telephone conversations etc.; filling out forms with personal details, writing e-mails.</li> </ul>			
Assessment methods: <a href="#">written and oral exam</a>			

## Further Courses

Hours/week: 2-5 SWS	ECTS-credits: 3 - 6	Recommended prerequisites: <a href="#">depending on the selected course</a>	Lecturer: N.N.
<p>In order to collect the necessary ECs, the general course offers for exchange students are also available for you. It consists of courses from various faculties.</p> <p>To find out more about the available elective courses during your stay please contact the Incoming Coordinator: <a href="mailto:exchange-studies@hswt.de">exchange-studies@hswt.de</a></p>			
Assessment methods: <a href="#">written and oral exam depending on the course</a>			

## Campus Life & Activities

Experience the largest **green university** site in Germany on our campus in Weihenstephan. Here, over 3.700 young **people from all over the world** are studying green engineering in a spirit of closeness and sustainability, with an interdisciplinary, international and practice-orientated approach.

At the campus you can explore the **Weihenstephaner Gardens**, the teaching and experimental gardens of the University. They are considered a tourist magnet and are a popular local recreation area for students.

Located in the Munich vicinity, the town of Freising vibrantly **bridges history and modernity**, with its historic city center and cathedral on one hand, and with renowned scientific institutions and two universities on the other. Freising is also home of the oldest brewery of the world.

The **Bavarian Alps**, only a stone's throw away, offer plenty of spectacular hiking tours or skiing activities. Nothings stands in the way of a visit to the famous **Oktoberfest** as Freising is only 30 min. away from Munich.

While Germany has plenty of **travel destinations** on offer, our international students love the fact that cities like Salzburg or Vienna in Austria, Venice or Milano in Italy, Zürich in Switzerland or Prague in the Czech Republic are just short train rides away waiting to be explored.

