

MASTER OF SCIENCE

# EARTH AND CLIMATE SYSTEM SCIENCE

The interdisciplinary and application-oriented Master's program in Earth and Climate System Science is based on the comprehensive scientific understanding of the Earth as a system. Aspects of the natural sciences are linked to topics in the agricultural and economic sciences.

The focus of this program lies on the analysis of the interactions of the Earth system's various components, which interact in fascinating and complex ways - the system is more than the sum of its parts. The analysis of these complex processes requires the study of human activities, population growth, food production, and land use management in the context of climate change. In addition, the simulation with regional climate, agricultural and economic models provide unique insights into Earth system functions. As a graduate, you will be able to contribute significantly to an ecologically-sustainable Earth System. This opens job opportunities in industry, governmental and non-governmental organizations.

## AT A GLANCE

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|---------------------------------|--|
| <b>DEGREE</b>                   | Master of Science  |
| <b>LANGUAGE OF INSTRUCTION</b>  | English  |
| <b>CREDITS</b>                  | 120  |
| <b>STANDARD PERIOD OF STUDY</b> | 4 semesters  |
| <b>AVAILABLE PLACES</b>         | 10   |
| <b>ADMISSION REQUIREMENTS</b>   | <ul style="list-style-type: none"><li>• Related Bachelor's degree (180 credits)</li><li>• English (B2)</li></ul>   |
| <b>SELECTION CRITERIA</b>       | <ul style="list-style-type: none"><li>• Final grade of Bachelor's degree</li><li>• Subject-specific coursework</li><li>• Vocational training, work experience, internships, further qualifications</li></ul> |
| <b>APPLICATION DEADLINE</b>     | March 15 for Non-German students<br>May 15 for German students   |

## CAREER PROSPECTS

You will stand out through your interdisciplinary thinking and flexibility when it comes to applying scientific methodologies in project work. Depending on your specialization, you will be prepared for a career in the following fields:

- Research activities in the field of Earth System and Geo Science (meteorology, environment, land management, etc.)
- Consultancy or project management in the public sector, private businesses, and non-governmental organizations
- Development assistance

## CONTACT

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[www.uni-hohenheim.de/ecss](http://www.uni-hohenheim.de/ecss)



UNIVERSITÄT  
HOHENHEIM



## Earth and Climate System Science

Master of Science

[www.uni-hohenheim.de/ecss](http://www.uni-hohenheim.de/ecss)

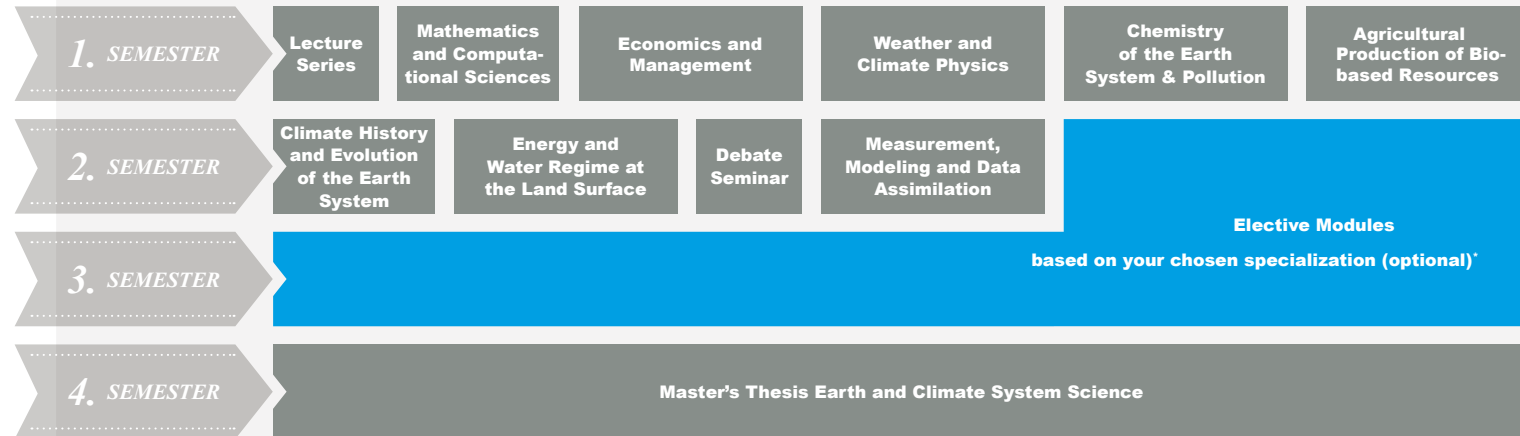
## PROGRAM OBJECTIVE

Within the Master in Earth and Climate System Science you develop a comprehensive understanding of the Earth system and you recognize how important its state is for humanity and our ecosystem. You are therefore perfectly prepared for solving pressing questions of our future and the sustainable development of the Earth System.



## ESPECIALLY INNOVATIVE COMPONENTS OF THE PROGRAMME:

- The debate seminar
- State-of-the-art modelling techniques to investigate key earth system processes
- Operation and analyses of regional climate models
- Application of remote sensing for earth system observations
- Synthesis of aspects of natural sciences with economic models
- Mitigation of and adaptation to climate change
- Bio-geoengineering



## COURSE DESIGN

During your studies, you will acquire theoretical knowledge in combination with practical work in geosciences and other topics, whilst maintaining a focus on real-world application in both research and industry careers.

During your first two semesters, you will take compulsory modules to acquire the fundamental skills needed for a career in Earth and Climate System Science. These are complemented by freely selectable modules from Hohenheim, and other institutions. This flexibility allows you to follow your own preferred research interests with regard to your personal career goals. You'll complete the course by conducting a one-semester Master thesis to apply your scientific knowledge and further develop your competence.

## EXAMPLES FOR OFFERED ELECTIVE MODULES AT THE UNIVERSITY OF HOHENHEIM:

- Agricultural and Forest Meteorology
- Climate Change, Risks and Challenges
- Ecology and Agroecosystems
- Environmental and Resource Economics
- Global Change Issues
- Measurement, Modelling and Data Assimilation II
- Remote Sensing of the Earth System
- Special Topics of Earth and Climate System Science

\*Within this Master course you can develop your **personal qualification profile** by choosing modules of a specific field, such as **Earth system processes and simulation, agroecosystems and food security or sustainability and environmental resources.**

