

## Centre for International Postgraduate Studies of Environmental Management

The postgraduate training program initiated by UNEP, UNESCO and BMUV is implemented by CIPSEM at TU Dresden since 1977. Each year, a six-month long-course with a comprehensive range of topics, as well as three specialized four-weeks short-courses on selective environmental topics take place. The program contributes to individual and institutional capacity building in developing countries and emerging economies by:

- Providing participants with the necessary know-how for preventive environmental protection and management - taking into account ecological, socio-economic, technical and cultural aspects;
- Transferring theoretical expertise to implementation measures in the field of governance (bridging the science-policy gap) - especially in their countries of origin. The participants should thus be able to develop and apply appropriate measures and solution strategies for environmental problems and sustainable development on site.

### Facts and figures

- More than 2640 alumni from 145 countries to date.
- 3 – 4 fully funded courses with a maximum of 84 participants each year.
- Holistic and interdisciplinary approach mainly by facilitators from the School of Civil and Environmental Engineering and external experts.

### Contact & further information:

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## Our Vision

The international study programs of the Faculty of Environmental Sciences promote interdisciplinary and interculturality to act towards sustainable solutions for our common future worldwide. The aim is to educate environmental experts in the fields of Forest Sciences, Geosciences, Hydro Sciences, and environmental management, capable of taking over responsible positions and being the change agents locally and globally.

### International Study Programs

#### Master's courses

by Chairs of the Faculty of Environmental Sciences

- Cartography
- Hydro Science and Engineering
- Tropical Forestry

#### Master's course

In cooperation with the International Institute (IHI) Zittau

- Ecosystem Services

#### Postgraduate courses

by Centre for International Postgraduate Studies of Environmental Management - CIPSEM

- Environmental Management

### Language

The teaching and working language for all international programs is English.

### Target group

Young environmental experts motivated to lead change processes in their home regions and in international and transnational organizations.

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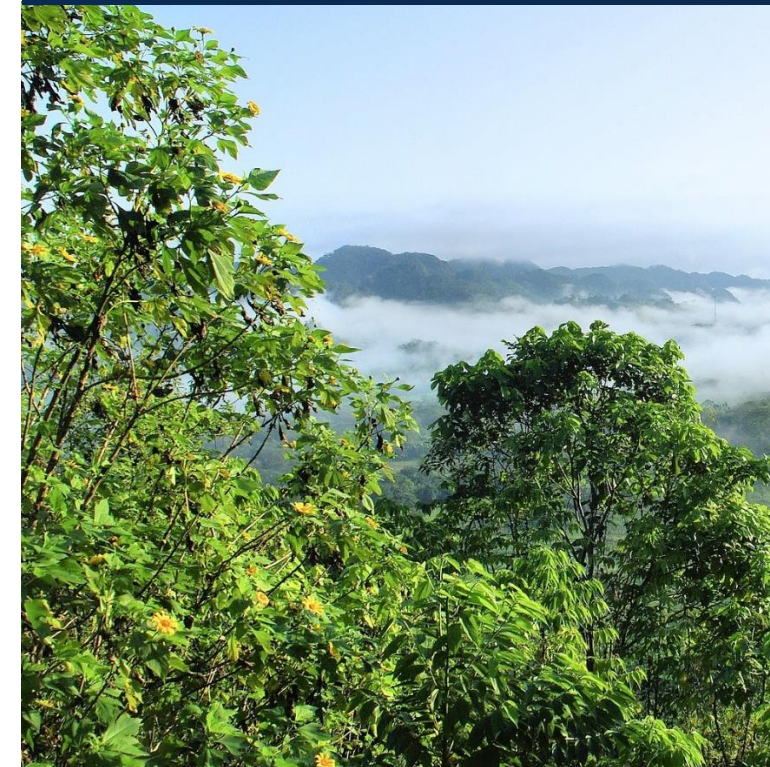


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concept



# International Study Programs

Faculty of Environmental Sciences

## Master's course Cartography

Europe's first and only international master's course in Cartography is a joint program of four universities: Technische Universität München (TUM), Technische Universität Wien (TUW), Technische Universität Dresden (TUD) and University of Twente (UT). The program is co-funded by the Erasmus+ Program of the European Union and focusses on broad education in cartography and geo-informatics.

The program is a complementary approach of the four partners' different research and educational profiles in an area where each partner is a leader in their own country and recognized internationally.

During their studies, students stay together as a group and move from TUM to TUW and then to TUD by semester. UT contributes online modules and coordinates the master's thesis semester.

### Competencies after studying

- Foundations of cartography and geovisualization.
- Database engineering.
- Multimedia cartography, web mapping, mobile internet and location-based services.
- Mobile and 3D cartography.
- Remote-sensing and laser scanning foundations.

### Contact & further information

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## Master's course Ecosystem Services

The international master's program on Ecosystem Services provides students with the knowledge base and methods to analyze pressing environmental problems and to develop societally relevant solutions. A special focus lies on inter- and transdisciplinary approaches from the natural and the social sciences in order to conserve and sustainably use biodiversity as well as to secure the sustainable provision of ecosystem services for present and future generations.

The program combines the natural and social sciences expertise of the International Institute (IHI) Zittau and the Faculty of Environmental Sciences at TU Dresden, the Senckenberg Museum of Natural History in Görlitz, and the Leibniz Institute of Ecological Urban and Regional Development (IÖR) in Dresden.

### Competencies after studying

Good understanding of the importance of ecosystem services for human well-being.  
Ability to assess ecosystem services for private and public decision-making. Focus areas for specialization:

- Environmental social sciences.
- Ecology and collections.
- Forest sciences.
- Biotechnology.
- Spatial development and natural resource management.

### Contact & further information

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## Master's course Hydro Science & Engineering

The international master's program combines all fields of water management from engineering, natural and environmental sciences. It especially addresses students from developing and transitional countries due to the specific problems in water management occurring there, which are subject to a number of modules. The program offers a unique opportunity to study "International water management" in Dresden, where water sciences and hydro engineering have a long tradition and is complementary to the traditional water related studies in Dresden.

The program is realized with the participation of the Department of Hydro Sciences, the Departments of Forest Sciences and Geosciences, the Faculty of Civil Engineering and the Dresden Water Center DKW.

### Competencies after studying

Good understanding of natural resources and antropogenic processes related to water.  
Ability to find science and engineering solutions for water problems. Specialization possible according to personal profile:

- Urban water.
- Flood risk management.
- Sustainable water future.
- Climate change & groundwater.

### Contact & further information

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## Master's course Tropical Forestry

The program qualifies future leaders, scientists and experts for the development of scientifically based, innovative and sustainable management concepts for natural and planted forests, agroforestry systems and urban green spaces as well as for supervision of their implementation and monitoring.

Special emphasis is given to an adaptive approach towards the changing conditions of society. It includes the manifold interactions among human beings and forest development from a multidisciplinary perspective. The program is designed to prepare for careers in governmental and nongovernmental organizations, as well as enterprises on national and international levels.

### Competencies after studying

The program qualifies graduates to deal with a wide range of challenges in contemporary tropical forestry and to adapt to future developments.  
Absolvents are equipped with extended skills in:

- Management of natural and planted forests, and urban tree resources in tropical and subtropical regions.
- Integrated land use management, agroforestry, carbon forestry and forest landscape restoration.

### Contact & further information

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