## S147  Geo-Ecological Regional Processes

**Coordinator:** Prof. Dr. H.-R. Bork  
**Teaching Staff:** Prof. Dr. H.-R. Bork, Prof. Dr. K. Dierßen

**Contact time overall:** 52 hours  
**Independent study:** 128 hours  
**Overall workload:** 180 hours

### Teaching Units:

- **Lecture**
  - **Title:** Geo-Ecological Regional Processes
  - **Teaching Staff:** Prof. Dr. H.-R. Bork, Prof. Dr. K. Dierßen
  - **Contact time:** 52 hours

### Competences the module has been designed to develop:

- Mastery of subject matter: **strong**
- Mastery of methods: **strong**
- Application of knowledge and understanding: **minor**
- Problem solving competences: **minor**
- Communication competences: **minor**
- Learning competences: **minor**

**Prerequisites:** None  
**Language of tuition:** English  
**Class size:** 25

**Term (Semester):** 1  
**Status for SSE:** Elective  
**Status for EM:** Elective

**Credit points:** 6 ECTS
Geo-Ecological Regional Processes

**Content:**

Principles of geomorphology, quaternary geology and soil forming: The regionalised application of adapted methods for geomorphology and quaternary geology at site level and local and regional scales based on case studies from different continents. Regional impact of cultivation measures and conservation concepts based on erosion events, desertification and salinisation processes. Principles of geo-botany: plant communities as result of site dependent parameters and plants as habitat forming factors. Characteristics of phytosociological units, identification of threats and conservation measures considering site specific conditions and transregional matter flux.

**Learning outcomes:**

Geo-scientific-processes: students are familiar with regional and local geomorphological, geological and soil forming processes and they are able to interpret interaction between them and hydrological and climatic systems for the formation of landscape typical structures.

Geo-botanic processes: students know the fundamental and specific interactions between sites, plants and plant communities. They are able to identify the availability of resources and their vulnerability to anthropogenic use.

**References:**

CD includes the whole PowerPoint presentation as well as further digital explanations and the relevant publications


Vanwalleghem et al. (2005): Rapid development and infilling of a historical gully under cropland, central Belgium. Catena 63: 221-243

Mieth, A. & H.-R. Bork (2010): Humans, climate or introduced rats – which is to blame for the woodland destruction on Rapa Nui (Easter Island)? J. of Archaeological Science 37: 417-426


**Recommended previous knowledge:**

None

**Teaching media:**

PPT

**Assessment:**

Oral examination: 100%

**Contact details of module coordinator:**

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