



Environmental and Coastal Management

Mode of Examination K	Mandatory (P)/ Elective (WP) P	Art/SWH 2V / 2Ü	Language English	Credits 6	Sem. 3 (WS)
Level Master	Area of Competence Elective Supplements			Organizer Schlurmann, Torsten	

Learning Objectives

Environmental planning:

- the methodology of analyzing an ecosystem for preserving biological diversity and ecosystem services
- the role of landscape planning and other instruments for nature conservation and sustainable development
- landscape aesthetics & integration of recreation and leisure activities,
- strategies for spatial planning and development and questions of implementation and participation
- consequences of global change for humanity, flora
- and fauna, and for ecological systems,
- planning at different levels and scales (local - global)

Integrated Coastal Zone Management:

Students acquire principles of near-shore coastal processes and anticipated changes in coastal zones due to multiple drivers and stressors. Students are competent in applying basic assessment approaches and design tools for coastal management purposes regarding the dynamic, continuous and iterative processes designated to promote sustainable management of coastal zones. On basis of this knowledge, students are capable to address and solve problems regarding coastal hazards, risks and vulnerability assessments and are acquainted with the fundamentals of policies and administration processes.

Learning outcomes:

- Remembering (Knowledge) - Can you recall information?
- different instruments for sustainable development
- fundamentals about landscape ecology and methodologies in landscape planning and nature conservation
- landscapes in their complexity
- mastery of vocabulary from the subject matter

Understanding (Comprehension) - Can you explain ideas or concepts?

- the purposes of environmental and regional planning
- the contexts and approaches of planning practice
- the range of viewpoints about, and perceptions of, environmental planning by the different interest groups involved with it

Applying (Application)



- Can you use the new knowledge in another familiar situation?
- pros and cons of different implementation strategies through case studies

Contents

Contents of the lecture series "Environmental Planning":

- Introduction - What mean environmental planning (Dr. Scholles)
- Landscape planning and other instruments of nature conservation (Prof. Von Haaren)
- The visual landscape (Boll)
- Biodiversity: types, measurements, conservation, and effects on human wellbeing (Dr. Graf)
- ecological networks, Natura 2000 and climate change (Prof. Reich)
- Climate adaptation planning and multifunctionality (Dr. Rueter)
- Modeling with regard to participation (PD Dr. Herrmann)
- Introduction to renewable energy (Dr. Palmas)
- Planning for renewables from biomass (Prof. Rode)
- Landscape planning and Water Framework Directive (Galler)

- Spatial planning (Prof. Danielzyk)
- Strategic Environmental Assessment (Dr. Scholles)
- Environmental Impact Assessment (Dr. Scholles)
- Contents of the lecture series "Integrated Coastal Zone Management":
- Drivers and stressors of near-shore processes and changes in coastal zones
- Basic assessment approaches and design tools for coastal management, Economics and ecology of coastal zones
- Stakeholders, coastal environment and measures to protect/defend/sustain the coastlines
- General design and maintenance of infrastructures and "low-regret" measures

Workload:	180 h (60 h Präsenz- u. 120 h Eigenstudium einschl. Studien-/Prüfungsleistung)
Prerequisites:	Environmental Hydraulics, Hydrology and Water Resources Management
Literature:	Selected publications will be provided at the beginning of the course.
Media:	blackboard, PowerPoint, StudIP, overhead
Particularities:	-

Institute:	Franzius-Institute for Hydraulic, Waterways and Coastal Engineering Institute of Environmental Planning
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