Module Card

Master Resource Efficiency in Architecture and Planning
HCU Hamburg

Module Number	Module Name	Type (C/CE/E)	Semester (proposed)	Module Coordinator
REAP-M-Mod-104	**Methods of integrated urban planning**	**C**	**1.**	**Prof. Dr. Wolfgang Dickhaut**

Subject Area	Duration
Fundamentals and Methods	1 semester

CP (according to ECTS)	Contact Hours/Week (SWS)	Self-study
5 CP (= 150 h workload)	I: 1 (= 10,5 h contact time) II: 2 (= 21 h contact time)	I: 61,5 h II: 54 h

Objectives and Contents

Objective of Qualification (competencies)

- Knowledge of methods of integrated planning, decision making and presentation skills.
- Self-organization and project-organization.
- Implementation of different methods and support of REAP project work (P1, P2 and P3).

Contents

I. Tools of Integrative Urban Planning (2,5 CP/ 1 SWS)

- Methodology of scenario techniques, thinking about the future in different variations, pictographic descriptions of different future scenarios.
- Introduction to instruments of economic evaluation of projects, application-oriented simplified methodology.
- Introduction to the goal tree (approaches, leading lines, objectives, assessment criteria).
- Project planning phases (site analysis, concept, development of overall framework, details, SWOT-analysis).
- Project structures, time management, (multicultural) decision making and network in projects/ working groups.
- Certification system „sustainability in neighborhoods“ (introduction to DGNB system).
- Development of illustrations of existing data and concepts overlapping contents (integration).
- Graphic presentation methods (posters, flyers, brochures).

II. Introduction to GIS (2,5 CP/ 2 SWS)

- Knowledge about characteristics and complexity of spatial data (geometrical, thematic, topological, temporal-components) and the importance of a proper data modeling stage.
- Introduction to suitable GIS data models for a given application (advantages and disadvantages of vector and raster as well as methods for the transformations between each other).
- Introduction to suitable operations for a given application based on an understanding of the principles of basic geometrical, thematic and topological operations.

Basic principles of modern cartographical representation of qualitative and quantitative data

Recommended Literature

- Lo, C.P. & Yeung, A.K.W. (2002): Concepts and Techniques of Geographic Information Systems. Prentice Hall.
- Longley, P.A et al. (2005): Geographic Information Systems and Science. Wiley.
- Wheeler, S.M. (2013): Planning for Sustainability. Creating Livable, Equitable and Ecological Communities. Routledge.
- Couch, C. (2016): Urban Planning: an introduction. Palgrave Macmillan.
- Fürst, D.; Scholles, F. (2008): Handbuch Theorien und Methoden der Raum- und Umweltplanung. Rohn.
- Therivel, R. (2010): Strategic environmental assessment in action. Earthscan.
- Wood, C. (2003) Environmental Impact Assessment – A Comparative Review. Prentice Hall.
- Kiker, G.A.; Bridges, T.S.; Varghese, A.; Seager, T.P.; Linkov, I. (2005): Application of Multicriteria Decision Analysis in Environmental Decision Making. In: Integrated Environmental Assessment and Management 1 (2), 95-108.

Teaching and Learning Methods

Lecture (connected to REAP projects, implementation of methods in REAP projects; coaching in following semesters).

Exam(s)

Precondition of Examination

Type of Examination	Duration of Examination (if written or oral exam)
Term paper	
Composition of Module Mark	
Exam grade	

Additional Information

Previous Knowledge / Conditions for Participation (in form and content)
None
Applicability of Module
The successful completion of this module is required for the attendence of the module REAP-M-Mod-105 Project I
Frequency of Offering
Winterterm
Course Language
English

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