

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-306 | Material Flow Analysis and Life Cycle Assessment | CE | 3. | Prof. Dr. Wolfgang Dickhaut |

| Subject Area | Duration |
|---|------------|
| Resources, Institutions and Instruments | 1 semester |

| CP (according to ECTS) | Contact Hours/Week (SWS) | Self-study |
|-------------------------|--------------------------|------------|
| 5 CP (= 150 h workload) | 2 (= 21 h contact time) | 129 h |

Objectives and Contents

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| Objective of Qualification (competencies) |
| <ul style="list-style-type: none"> Understanding the principles and application of Material Flow Analysis and Life Cycle Assessment. |
| Contents |
| <ul style="list-style-type: none"> Principles of Material Flow Analysis (MFA) and Life Cycle Assessment (LCA), their foundations, extensions and limitations. Computer-aided application of MFA and LCA. Computer aided Life Cycle Assessment (according to ISO 14044), application: <ul style="list-style-type: none"> Goal and scope definition. Life cycle inventory analysis (LCI); including data collection, definition of system boundaries, modelling of material flows. Life cycle impact assessment (LCIA); including selection of impact categories, category indicators, characterization models, normalization. Life cycle interpretation. |
| Recommended Literature |
| Varying, will be provided prior to course. |
| Teaching and Learning Methods |
| Lecture (complemented by seminar discussions, individual student inputs for specific subjects, case studies of LCA). |

Exam(s)

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| Precondition of Examination | |
| regular participation, successful completion of student report and oral presentation | |
| Type of Examination | Duration of Examination (if written or oral exam) |
| Term paper (S) comprising report (R) | |
| Composition of Module Mark | |
| Exam grade | |

Additional Information

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| Previous Knowledge / Conditions for Participation (in form and content) |
| None |
| Applicability of Module |
| Students have to select 2 modules of the block "Resources, Institutions and Instruments" to attend REAP-M-Mod-309 Project III. |
| Frequency of Offering |
| Each winter term |
| Course Language |
| English |

Update: 30.09.16