

List of Lectures

The study programme [Master for Environmental Engineers](#) and a corresponding [wiki page \(fast loading\)](#) inform about courses, professors, news and events related to this course for international students.

For some lectures e-learning systems have been set up at [e-learning for environmental hydrologists](#). Watch out at the bottom of each teaser text for each lecture.

Master Environmental Engineering

Sustainable Water Resources Management Water and Environmental Engineering Techniques



The course introduces principles and methods of sustainable water resources management for the Master Environmental Engineering. The course includes water resources assessment and the necessary hydrological background on processes and water balances, integrated water resources assessment, flood and drought risk assessment, management and mitigation and planning for environmental hydrology.

[Notes on Sustainable Water Management](#)



Environmental Hydrology master course includes water quality of rivers, transport modeling in rivers and lakes, water quality of lakes, soil protection, soil water movement, groundwater quality, water and solute movement in aquifers, environmental water chemistry, restoration of systems, remediation methods, protection of groundwater and environmental engineering (artificial wetlands, reactive barriers).

[Environmental Hydrology Notes](#)

Advanced Study Courses

Tracer Hydrology



The course on tracer hydrology introduces the principles of the use of tracers in hydrology. Environmental tracers and artificial tracers are presented, methods of applying them for hydrological studies, interpretation and modeling. The lecture is offered as a block course at TU Darmstadt. Lecture notes can be found [here](#).

Project Water & Environmental

Environmental Tracer Techniques



The course introduces and demonstrates environmental isotope field techniques with sampling, monitoring, analysis and interpretation. Analysis of recharge and solute transport are presented. Course announcements are given on [our news page](#). Participants can access notes of the lecture, slides, links and videos [here](#).

Climate Change Adaptation - Engineering Approaches

Engineering

- [Review paper](#)
- [Meckenstock et al., 2004](#)

Topics

- Carbon sequestration in soils
- Carbon sequestration in wetlands
- Engineering approaches to carbon sequestration
- Adaptation to hydrological extremes
- Nexus - carbon and water (and nutrients) linked
- Hydro-Power - Where is the potential?
- Biogas - is it an option (everywhere)

Material:

- [Early report on the impact of climate change](#)
- [The fifth IPCC Assessment Report](#)
- [Environmental Engineering for Climate Change Adaptation \(IAHR\)](#)
- [Adaptation Induced Water Engineering](#)
- [Climate Change Adaptation for Engineers - Guidelines \(link\)](#)
- Integrate Climate Change Adaptation into Civil and Environmental Engineering

Proposals:

- Proposal ISOMED
- Documents for ISOMED
 - MedSal
 - Form (GIZ)
 - ReStore
 - CoBalus

Notes, slides, information, for editing [Climate Protection](#).

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