Module title			Abbreviation
Energy, Emerging Technologies & Smart Cities			07-MGCS-E-ET-252-m01

Module coordinator	Module offered by
Dean of the Faculty of Biology	Faculty of Biology

ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

The module will include lectures, workshops and seminars on:

- Principles and history of energy conversion and consumption Sustainable and renewable energy resources
- Emerging technologies and their environmental and social impact on urban landscapes
- Energy policies and practices in urban areas Energy justice
- Life cycle analysis

Intended learning outcomes

In this module, students will learn to understand the principles and history of energy conversion and consumption and the importance of renewable energy sources for building and maintaining sustainable cities. They will learn to design practical solutions to the challenges and opportunities presented by emerging technologies, as well as examine the ethical, social, and environmental implications of energy and technology choices in urban contexts.

Courses (type, number of weekly contact hours, language — if other than German)

S (4)
Module taught in: English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Portfolio (10 to 15 written or oral assessments, each 5 to 10 pages or 10 to 15 minutes)
Oral examinations can also be held as group examinations. The examination time will be determined according to the number of participants, with the specified time frame of 10 to 15 minutes being applied per candidate.
Language of assessment: English

Allocation of places

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Additional information

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Workload

300 h

Teaching cycle

Teaching cycle: every semester

Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Master's degree (1 major) Global Challenges for Sustainability (2025)