Module title: Climatology: climate change, implications and protection

Abbreviation: 09-MAT1-102-m01

Module coordinator: holder of the Professorship of Climatology

Module offered by: Institute of Geography and Geology

ECTS: 5

Method of grading: numerical grade

Duration: 1 semester

Module level: graduate

Other prerequisites: --

Contents:
The module "Climatology" provides students with the resource "climate" that is an important constraint concerning structures and processes on the Earth’s surface. Particularly the variability of the atmospheric conditions on the atmospheric time-scale makes up the main focus of the module. The module component pursues the problem complex "climate change", whereas the anthropogenic influencing on the terrestrial climate system will be assessed in the light of natural climate factors and fluctuations. Observed climate signs and climate model findings will be presented and the ecological as well as socio-economic consequences of the climate change will be evaluated. Further, requirements, possibilities and problems of the climate policy will be highlighted.

Intended learning outcomes:
Students get profound insights into mechanisms of climate variability on the basis of physical and mathematical explicit descriptions of atmospheric processes. Especially, the causal relations of natural and anthropogenic climate factors will be discussed. Hence, students get a profound understanding of the problems of anthropogenic climate change and learn to evaluate other issues to "earth sciences" against the background of the changeable geo resource.

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

V (no information on SWS (weekly contact hours) and course language available)

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

written examination (approx. 60 minutes)

Language of assessment: German, English

Allocation of places:
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Additional information:
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Referred to in LPO I (examination regulations for teaching-degree programmes)
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Module appears in:
Master's degree (1 major) Applied Human Geography (2010)
Master's degree (1 major) Applied Physical Geography (2013)
Master's degree (1 major) Applied Physical Geography (2010)